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PART E

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PO -CH /NL/0175



PART E

MONTHLY MONETARY
ASSESSMENTS

PO -CH /NL/0175
PART E

Begin: 20/10/88
Ends: 9/12/88

DD: 25 years

26/9/95

** per you PM
not for
share with
I am not @ all
(a) I see
(b) is both
unstable &
complexity
control
the
low
for our
what does
the
gratify
the
high*

FROM: J W GRICE
DATE: 20 October 1988

ECONOMIC SECRETARY

cc
Chancellor
Sir Peter Middleton
Sir Terence Burns
Sir Geoffrey Littler
Mr Scholar (o/r)
Mr Sedgwick
Mr Odling-Smee
Mr Peretz (o/r)
Mr Mowl
Miss O'Mara
Mr O'Donnell
Mr Brooks
Ms Ryding
Ms Wright
File: MAMC C6

*Ch
I think (b) is mad.
How on earth can you do
sensible seasonal adjustment
of PSBR + pending + external
public sector*

PRESENTATION OF MONETARY STATISTICS FOLLOWING THE HIBBERT COMMITTEE REPORT

Following recurrent difficulties with the seasonal adjustment of the monetary aggregates, Sir Peter Middleton asked Jack Hibbert - the Head of the Government Statistical Service - to set up and chair an Inquiry into the justification for and the methodology used in making the seasonal adjustment. The Committee of Inquiry thus constituted included both representatives of the Treasury and Bank (Sir Terence Burns and John Flemming) and outsiders (Andrew Bain and Professor Durbin). That Committee has now reported back and the Bank wish to include a short article in their November Bulletin setting out their response to it.

2. The Bank have sent a copy of their draft article to Mr Scholar for approval. He is out of the Office today. But he has discussed it with me at length and, in view of the publication deadlines, asked me to seek your approval for an amended version of the Bank's draft.

*PS. So our
monetary answer
has been
can't do this
could be
further discussion*

*Stand to answer
the
Committee
let the Bank
have*

*1988 @ incl a paper
showed instructions*

Substantive Issues

3. The Bank's draft article is attached. It raises three main substantive issues:

a) the Bank wish the monthly money press notices to give slightly more emphasis to seasonally adjusted numbers. In particular, they wish to include 12 month seasonally adjusted growth rates for the monetary aggregates. The current format has adjusted and unadjusted one month figures but only unadjusted 12 month figures are given. Following the Hibbert Report - and since commentators can already infer the seasonally adjusted 12 month rates if they wish - officials are not inclined to resist the Bank's proposal;

✓
Mad | b) a little more difficult is the Bank's desire to publish seasonally adjusted data for all of the counterparts. In the current Press Notice only bank lending is shown in adjusted form. The Treasury's position throughout has been a strong desire not to publish a monthly seasonally adjusted PSBR. Apart from the fact that any conventional seasonal adjustment would be quite inadequate to deal with short run distortions to the PSBR, it would detract from the PSBR's essential property of being a cash concept appropriate to our running of policy in a nominal framework. Recognising this, the Bank propose to show a seasonally adjusted "public sector contribution" - a conflation of the PSBR, funding and the public sector external counterparts. It is possible that publishing this aggregate will lead to some questions as to why we cannot publish the components seasonally adjusted. But we think nevertheless, that it will not prevent us from maintaining our position on the PSBR, quoting the above reasons in support of our case. So officials recommend acquiescence in the Bank's proposals;

c) the Bank propose that the Hibbert Committee Report should be made available to anyone who wants it. It is a very arid document and its potential readership is small. But its conclusions and recommendations are generally helpful

and it may have some small part to play in increasing public awareness of how the official seasonal adjustments are carried out. We therefore think that we should agree the Report be made available. Mr Hibbert is content with this.

Drafting Points

4. Apart from the substantive issues, we think that there are a couple of points in the Bank's drafting which require attention:

a) in one or two places - especially the first full paragraph on p3 - the drafting is unnecessarily adversarial: Treasury and CSO versus the Bank. We shall ask the Bank to amend the drafting in this respect;

b) the second full paragraph of p3 is drafted negatively and is virtually designed to encourage questions as to why a monthly seasonally adjusted PSBR will not be given. We will insist the Bank change this to underline the positive aspect of the increased information which will be given.

Conclusion

5. Subject to the above points, would you be content for the Bank to publish their article? The publication deadlines means that it would be very helpful to have your views by 3.00 pm tomorrow, Friday 21 October. I apologise for the short time that is available.

JWG

J W GRICE

DRAFT

SEASONAL ADJUSTMENT OF THE MONETARY AGGREGATES

INTRODUCTION

In 1986 a small group chaired by the head of the Government Statistical Service was set up to review the seasonality and method of seasonal adjustment of the monetary aggregates. This group included independent representatives, as well as representatives of the Bank and HM Treasury. The group, which came to be known as the Working Party on Seasonal Adjustment of the Monetary Aggregates, has now completed its work. Its findings are set out in a report ("Report of the Working Party on Seasonal Adjustment of the Monetary Aggregates", Central Statistical Office, 8th September 1988, obtainable from the CSO at Great George Street, London SW1P 3AQ).

The Bank, HM Treasury and the Central Statistical Office have now considered the Working Party's report. A number of recommendations were made. This article sets these out and explains how the Bank proposes to respond to them.

THE WORKING PARTY'S TERMS OF REFERENCE

The terms of reference of the Working Party were as follows:

1. To review the extent of seasonality in the monetary aggregates.
2. To examine the technical merits of different available methods of seasonal adjustment of the aggregates, taking into account:
 - (a) The need to provide maximum assistance in interpreting the aggregates.
 - (b) The treatment of non-seasonal influences that affect the underlying trend.
 - (c) Any significant differences in the resource costs between one method and another.
 - (d) The need to ensure consistency among different seasonally adjusted series.
 - (e) The stability of the seasonal factors produced by the different methods.
3. To consider whether any changes should be made, and to make recommendations.

THE WORKING PARTY'S CONCLUSIONS

The working party reached the following conclusions:

- (a) The broader monetary aggregates display less seasonality than many other typical economic series. Nevertheless, they have a seasonal component comparable in strength with that in other series which are published in adjusted form.
- (b) External users of the data feel that they would need adjustments to cope with the seasonality. If no official series were produced, users would have to invent their own. The outcome would be confusing

and inefficient.

(c) Revisions to the seasonal factors for the monetary aggregates have been much greater than for non-monetary series, compared to the respective levels of the series. Nevertheless, the observed instability of the seasonal adjustments is no larger, in proportion to the irregularity of the aggregates, than for other non-monetary data. There is no evidence that the revisions are due to any technical deficiency of the Bank's methods.

(d) Nevertheless, some courses are open to the Bank which might reduce revisions to seasonal factors. One is to use current updating, which would be expensive to operate globally but on the basis of other studies might be expected to reduce revisions by about 15%. Current updating of deterministic adjustments only would be less expensive but still worthwhile. A second is to minimise changes to methodology.

(e) The choice between stochastic and deterministic adjustments should be reviewed regularly. There is now a good case for changing the bank interest adjustment to stochastic.

(f) The Bank should continue to ensure that the seasonally adjusted flow of funds matrix is balanced.

(g) Apart from the question of current updating, none of the issues discussed has any significant resource cost implications.

THE WORKING PARTY'S RECOMMENDATIONS

The Working Party made the following recommendations:

(a) The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix.

(b) The Bank should review the choice of components for deterministic adjustment, with a presumption that bank interest is no longer a candidate for this method. The choice should be reviewed regularly.

(c) The Bank should minimise changes in methodology. This means that the potentially beneficial effects of any proposed change need to be weighed carefully against the disruption which users are liable to suffer in consequence. Before making any major change, the Bank should consult with the CSO and the Treasury to ascertain the balance of advantage.

(d) The Bank should use current updating of deterministic adjustments wherever feasible. The restriction on changing previously published seasonal adjustments should be relaxed where this will improve the effectiveness of current updating.

(e) The CSO should review the policy of updating seasonal adjustments, considering in particular the practicability of using current updating for stochastic adjustments. The Bank and CSO should discuss the applicability of this review to the monetary aggregates.

THE BANK'S RESPONSE

The Bank accepts the Working Party's recommendations in full. The way in which the Bank will respond to these recommendations is set out below.

The procedures by which the Bank consults with the CSO and the Treasury about changes in methodology have been put on a more formal basis. An annual exercise to update the seasonal adjustments in the light of the latest year's new data is currently under way in the Bank, and arrangements have been made for the CSO and the Treasury to be consulted about proposed changes (recommendation c). One change which the Bank has already proposed, and CSO and the Treasury have accepted, is that bank interest should no longer be subject to deterministic adjustment (recommendation b). The Bank does not propose to make any other changes to components subject to deterministic adjustment. Once the results of the update have been promulgated the only deterministic adjustments will be in respect of payment of Petroleum Revenue Tax (see the June 1981 and June 1983 Bulletins), and in respect of a change in 1986/87 in the timing of payments of Composite Rate Tax by building societies.

In response to recommendation a, the Bank will continue to publish a seasonally adjusted flow of funds matrix (see table 19 of the Statistical Annex). The components and counterparts of broad money, which can be derived from the matrix accounting framework, will also be published in seasonally adjusted form. In the monthly data however, the only counterparts to broad money to be shown in seasonally adjusted form will be the 'public sector contribution' (ie the sum of the public sector counterparts), 'sterling lending' and 'other counterparts' (ie the sum of the banking external counterparts and sterling net non-deposit liabilities). The Bank's monthly press releases showing the monetary aggregates will reflect these changes. Growth rates over 1, 3, 6 and 12 months will be shown in seasonally adjusted form, as will the main counterparts to broad money. These changes will take effect with the press release showing the October money figures, to be published on 18th November 1988.

The CSO are considering undertaking the review suggested in recommendation e. When the review is complete, the Bank will discuss its applicability to the monetary aggregates. For the time being, the Bank proposes to respond to recommendation d by introducing a procedure for the current updating of deterministic adjustments. Hitherto, it has been the Bank's practice to revise seasonal adjustments only once a year, following the completion of the annual updating exercise. The last such update took place with the publication of the October 1987 figures in November 1987. In future, stochastic adjustments will be reviewed, as before, in an annual updating exercise, and promulgated in November or December each year. But deterministic adjustments will be reviewed regularly throughout the year, and if changes are thought to be appropriate they will be introduced as soon as possible. Such changes would, of course, affect not only the adjustment to the most recent month or two, but possibly a much longer run of earlier months as well. On past experience, it seems unlikely that it will be necessary to make such changes more than 3 times a year. When changes are made, they will be promulgated in the first monthly press release ("Provisional Estimates of Monetary Aggregates", published around the 19th of each month). Tables will be provided showing the seasonally

adjusted data on both the 'old' and 'new' bases for the latest month and for a run of recent months. The second monthly press release ("Monthly Statistics", published around the end of the month) will use the same updated adjustments as the provisional press release. The final press release will continue to give an indication of the seasonal adjustments for the forthcoming month. It will not be possible in either of the press releases to give any indication of the reasons which gave rise to the need for an update to seasonal adjustments, except in cases where the information which gave rise to the update is already publicly available. It is proposed to introduce this new procedure once the latest annual update of seasonal adjustments has been promulgated; this is expected to occur either with the publication of the October figures on 18th November 1988, or with the November figures on 20th December.

GLOSSARY OF TERMS

Stochastic adjustments assume that the pattern of seasonal variation in a series is stable or evolving smoothly in time, and hence may be estimated by some form of moving average of the data.

For some series it is judged that the assumptions underlying stochastic methods do not apply. Usually these are series for which the seasonal pattern undergoes an abrupt change, or for which the size of the seasonal effect changes with some external factor. For these series a method known as deterministic adjustment is used. This method treats the objective of the adjustment as being to achieve a smooth path for the adjusted series within the year. The adjusted series is therefore defined by setting each monthly value to the average of the unadjusted values. The adjustment of the current year requires forecasts of the unadjusted values for the remainder of the year. In some cases a smoothing period other than a year is appropriate; periods of six months or three months are used.

[Are there other terms to be defined?]

FROM: W HOOD
DATE: 20 October 1988

SIR T BURNS

cc PPS
PS/EST
Sir P Middleton
Sir G Littler
Mr Byatt
Mr Lankester
Mr Evans
Mr Mountfield
Mr Odling-Smee
Mr Peretz
Mr Gieve
Mr Matthews
Mr Walsh
Ms Life
Mr Kipatrick
Mr Savage
Mr Cassell (UKDEL)

(A Shur note)

THE EVOLVING INTERNATIONAL MONETARY SYSTEM: SPEECH BY M CAMDESSUS

This minute reports and comments on the main points of the speech given by M Camdessus in Bombay on 4 October. You already have a copy of the full text of the speech; further copies can be made available to copy-addressees on request.

2. M Camdessus concentrates on three issues: symmetry of adjustment, stability of the exchange rate system, and the role of the SDR. On symmetry, he says (pages 4 and 5):

"The [asymmetry] that I should like to focus on is the perceived asymmetry in adjustment responsibilities between different groups of countries - and specifically between countries that do not need to approach the IMF for financial assistance, on the one hand, and countries that do, on the other. That the forces operating on the first group to correct its imbalances are not as strong as those operating on the second group clearly continues to be true. The latter are real and pressing: the former are for the most part moral and persuasive."

The distinction drawn between the IMF's customers and the rest is exaggerated. Developed countries are subject to the

disciplines of international financial markets, which can be quite as rigorous as the IMF's - and are of course not simply "moral and persuasive". As the Chancellor's speech at the Annual Meetings in Berlin made clear, the distinction between creditworthy countries and non-creditworthy countries is an important one. Also, the emphasis on "correcting imbalances" - it is clear that M Camdessus means current accounts - as being the object of the exercise is much too simple. Camdessus uses his argument to conclude that we need "more comprehensive principles ... to guide the Fund in the exercise of surveillance". We do not want more Fund surveillance of individual countries.

3. Turning to exchange rate stability (page 7):

"...one should not exaggerate the discipline and stability that fixed exchange rates can bring. Instability is rooted in the shortcomings and inconsistencies of national economic policies. Fixing exchange rates, or setting tight target ranges, to my mind only raises questions as to how monetary and fiscal policies are to validate them."

This is the cornerstone of the IMF's philosophy, and it is clear from other passages that M Camdessus sees shortcomings and inconsistencies in fiscal policy as being the main culprit. An alternative view, as expressed in the Chancellor's September 1987 IMF speech, is that a major source of exchange rate instability is to be found in a failure of exchange markets - with short-term speculative forces often outweighing longer-term ones - ^{but} is not mentioned in the speech. The history of the exchange rate mechanism of the EMS does not support the IMF view that fiscal policies are the key to exchange rate stability.

4. M Camdessus later (page 8) quotes from the Chancellor's 1987 speech to the Fund Annual Meeting in Washington, listing five reasons why the major industrial countries had been able to make the move to managed floating work. However, he omits

the two fundamental changes which the Chancellor said made the move to managed floating possible. These were:

(i) the world had at last returned to one of low inflation, and inflation differentials had narrowed considerably;

(ii) there was a clear consensus among the major countries about the approach to economic policy, with agreement on the need for greater reliance on market mechanisms.

He also omits to mention the Chancellor's actual proposals for the future development of managed floating, because these are very different from his own.

5. M Camdessus makes some recommendations to deal with instability (page 9). These are:

(i) "...press on with efforts to develop a framework of analysis that commands a broad basis of acceptance at the technical level and yet is straightforward and compelling enough to carry conviction at the political level. This is an area in which the Fund has a key role to play";

(ii) "Second, continue to refine the instruments and procedures of co-ordination. The more that understandings could be reached on key indicators, the more leverage could be created for prodding men of goodwill into remedial policy action when events in fact deviated from a desired course";

(iii) "Over time, it should be possible ... to involve countries outside the G-7 more meaningfully in the evolving process of international monetary co-operation. Not only possible, but to my mind essential."

These are all familiar IMF objectives, designed to give the IMF a greater role in orchestrating international co-operation. On (i), we might respond that a measure of consensus about economic policy already exists. If (ii) is a reference to

performance indicators, we disagree strongly. In any case, it is clear that the idea that a framework of indicators might be developed which would trigger domestic policy actions is now virtually dead within the G-7 at least. (iii) is simply impractical. Successful co-operation is difficult enough with only seven countries involved.

6. Finally, in the section on the role of the SDR (page 10), he rehearses the arguments for an SDR allocation, and then goes on to ask:

"Could [an allocation] usefully reduce the high cost for many countries of generating reserves through further adjustment of their current accounts?"

In this obscure reference, M Camdessus may be signalling support for the French debt plan which involves an SDR allocation to help middle income debtors.

Warwick Hood

W HOOD



FROM: A C S ALLAN
DATE: 21 October 1988

PP

PS/ECONOMIC SECRETARY

cc Sir P Middleton
Sir T Burns
Sir G Littler
Mr Scholar
Mr Sedgwick
Mr Odling-Smee
Mr Peretz
Mr Grice
Mr Mowl
Miss O'Mara
Mr O'Donnell
Mr Brooks
Ms Ryding
Ms Wright

PRESENTATION OF MONETARY STATISTICS FOLLOWING THE HIBBERT
COMMITTEE REPORT

The Chancellor has seen Mr Grice's minute of 20 October to the Economic Secretary. He is not at all keen on accepting the Bank's proposal that the monthly money press notices should give slightly more emphasis to seasonally adjusted numbers. But he feels that the proposal to show a seasonally adjusted "public sector contribution", made up of a conflation of the PSBR, funding and the public sector external counterparts, is both misguided and contrary to the line we have consistently taken and worked for over the years.

2. In the circumstances, he does not think we can possibly let the Bank have a green light at such short notice: our immediate answer has to be that they cannot publish this article, certainly not without further discussion.

ACSA

A C S ALLAN

CONFIDENTIAL
Not for Bank Eyes

Peretz x

FROM: J W GRICE
DATE: 1 November 1988

- 1. MR SCHOLAR
- 2. CHANCELLOR OF THE EXCHEQUER

cc Economic Secretary
 Sir P Middleton
 Sir T Burns
 Sir G Littler
 Mr Sedgwick
 Mr Odling-Smee
 Mr Peretz (o/r)
 Mr Mowl
 Mr Gieve
 Miss O'Mara
 Mr O'Donnell
 Mr Bush
 Mr Brooks
 Ms Ryding
 Ms Wright

I think that we will be able to persuade

the bank to accept Sir P Middleton's variant BB

without too much fuss. I hope that you will be

able to agree to this compromise.

MCS 2/11

With some misgivings, OK.

File: MAMC C6

**PRESENTATION OF MONETARY STATISTICS FOLLOWING
THE HIBBERT COMMITTEE REPORT**

X | Mr Allan's minute to the Economic Secretary's Private Secretary records your response to my submission of 20 October. We are sorry that, through an oversight, we did not consult you earlier on these issues, and on the Hibbert Committee Report.

!! | 2. I attach a copy of the Hibbert Report, together with a commentary on it. These were discussed by officials several weeks ago.

3. The conclusion of that meeting was that we saw the balance of advantage as lying in allowing the Bank to give slightly more emphasis to seasonally adjusted monetary aggregates in their monthly press notice:

(i) the Bank will argue that not to do so would be inconsistent with the Hibbert Report, which makes a number of recommendations that ought to remedy many of the problems we have experienced with the seasonal adjustment in the past. But it also concluded that there was seasonality in the broad monetary aggregates which, whilst at the bottom end of the spectrum of seasonal economic series, was nevertheless of the

same order as that in other economic series which are routinely seasonally adjusted when published;

(ii) the Hibbert Committee included two outsiders as well as Mr Flemming and Sir Terence Burns. We probably have to regard the Report as being effectively in the public domain. If so, it would make it all the harder to explain why we were not showing 12 monthly adjusted growth rates in the way that we did with the banking month data prior to November 1986;

(iii) including the 12 month seasonally adjusted growth rate would not give new information. We already show one month growth rates in seasonally adjusted form. By cumulating the last 12 press notices or by splicing the last two or three onto the published quarterly series, commentators can work out the 12 month adjusted growth rate. One or two of them have done that in the past. The Bank's proposal would amount only to doing this calculation for them;

(iv) there is a special problem with M0, which seems to have enjoyed a welcome increase in credibility. Unlike the broad aggregates, M0 is very seasonal. Around Christmas-time, it is usually some 15 per cent above its average level. Looking at unadjusted 12 month growth rates takes out much of this seasonality but not always all of it. We experienced a particular problem at the end of 1987-88 when the unadjusted 12 month growth rate shown in the Press Notice was 6.4 per cent - outside our target band of 2-6 per cent. The excess was entirely attributable to the different timing of Easter in 1987 and 1988. The seasonally adjusted 12 month rate, which takes account of the different holiday period but which is not in the press notice, was only 5.8 per cent. We face a potentially larger problem in the near future. Monthly M0 is measured as the average of the Wednesday levels in that month. In January 1989, the average Wednesday falls several days closer to Christmas than it did in January 1988. Because of the size of the seasonal peak around Christmas, the unadjusted 12 month growth for January 1989 may turn out to be around 3 per cent higher than the seasonally adjusted figure, currently not published.

4. But allowing the counterparts to be published monthly in seasonally adjusted form would be a further step. The argument for it is that the PSBR and the other broad money counterparts are already published quarterly on a seasonally-adjusted basis in Financial Statistics and the BEQB. Against this background, it is hard to see what defence we could give for not publishing them monthly if we can do so, as we can. But the Bank appreciate that there are good reasons for not publishing a seasonally-adjusted PSBR monthly and that we are determined not to do so. Hence their proposal that we should publish only a set of seasonally adjusted counterparts which add up to the broad money total (ie. the public sector contribution, sterling lending and the other counterparts which add up to broad money) but not separately distinguishing the components of the public sector contribution - the PSBR, funding and the public sector externals - so as to conceal what the seasonally-adjusted PSBR was.

5. This seemed to us an acceptable, if tortuous, solution to an awkward problem. An alternative would be to publish no seasonally-adjusted counterparts at all. But we did not wish to go over all this ground again with the Bank, who in 1986 nearly got themselves into the position of telling us that if we wanted to change their proposed press notice, they would require public direction to do so. It was partly to avoid this impasse that the Hibbert Committee was set up. In the worst outcome this time around, we could find ourselves in the same position.

Conclusion

6. In considering these matters, Sir Peter Middleton suggested it might be helpful to have available mock-ups of the various presentations of the Press Notice. These are attached:

Version A is the current format.

Version B is the Bank's mock-up with just the change to the monetary aggregates.

Version BB is a variant with some re-ordering that Treasury officials thought was necessary and also the addition of the non-seasonally adjusted monthly change which the Bank format had surreptitiously dropped.

Version C has the changed treatment of both the monetary aggregates and the counterparts.

7. Given the difficulties we have experienced with seasonal adjustment in the past, there must obviously be reservations about increasing the emphasis on seasonal adjustment in the monthly money press notices. But would you nevertheless be prepared to allow the Bank to make the relatively modest changes they propose in respect of the monetary aggregates?

8. On the counterparts, one option would be to go along with the proposal in paragraph 4 above. That would produce a presentation on the lines of Version C.

9. But if we can persuade the Bank to publish no seasonal counterparts at all in this monthly series we could adopt either presentation A or B or BB.

10. Sir Peter Middleton prefers Version BB.

11. On timing, it is no longer possible to respond to the Bank in time for an article in the November Bulletin. But the Bank normally update and announce their new seasonals for the coming year at the same time as publishing the final October money supply figures - on November 29. This would be a natural point for the Bank to issue a press notice recording their response to the Hibbert Report, which they would then re-print in the February Bulletin. If we aim for that date, then there is still a little time for further consideration, though if negotiations with the Bank prove difficult we may need it.

JWG
J W GRICE

Provisional estimates of monetary aggregates: August 1988

1 Provisional information suggests the following:

<i>% changes</i>	M0	M3	M4	M5
12 months to August (not seasonally adjusted)	+7.8	+20.1	+17.3	+16.5
August - not seasonally adjusted	+0.8	+0.8	+0.7	+0.7
- seasonally adjusted	+1.0	+0.9	+1.2	+1.1

2 Provisional counterparts to the changes in M3, M4 and M5 are:

<i>£ billions, not seasonally adjusted</i>	M3		M4		M5	
	August	latest 12 months	August	latest 12 months	August	latest 12 months
A PSBR	-1.5	-9.8	-1.5	-9.8	-1.5	-9.8
B debt sales to private sector (-) (1)	+1.1	-1.4	+0.7	-2.4	+0.6	-1.4
C external flows to public sector (-)	+0.1	+7.8	+0.1	+7.8	+0.1	+7.8
D public sector contribution (A+B+C)	-0.3	-3.4	-0.7	-4.4	-0.8	-3.4
E sterling lending (2)	+1.6	+53.2	+4.4	+74.9	+4.4	+74.3
F other counterparts (3)	+0.3	-14.8	-1.3	-20.6	-1.2	-20.7
Total (D+E+F)	+1.6	+35.0	+2.4	+49.9	+2.4	+50.2
Sterling lending (seasonally adjusted)	+3.1		+5.8		+5.8	
(average of previous 6 months)	+4.8		+7.0		+7.0	

(1) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

(2) Lending by the monetary sector (and, for M4 and M5, by building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(3) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

3 The PSBR was reduced in August by privatisation receipts of £2.2 billion, reflecting the second payment for BP shares.

4 Full monetary statistics for August, including revised estimates of the figures given above, will be published on 29 September.

Provisional estimates of monetary aggregates: August 1988

1 Provisional information suggests the following:

% changes		M0	M3	M4	M5
August 1988	(seasonally adjusted)	+ 1.0	+ 0.9	+ 1.2	+ 1.1
3 months to August 1988	(seasonally adjusted, annual rate)	+12.6	+26.7	+22.9	+21.8
6 months to August 1988	(seasonally adjusted, annual rate)	+10.8	+24.9	+20.5	+19.4
12 months to August 1988	(seasonally adjusted)	+ 7.6	+20.3	+16.9	+16.1
12 months to August 1988	(not seasonally adjusted)	+ 7.8	+20.1	+17.3	+16.5

2 Provisional counterparts to the changes in M3, M4 and M5 are:

£ billions, not seasonally adjusted	M3		M4		M5	
	August	latest 12 months	August	latest 12 months	August	latest 12 months
A PSBR	-1.5	- 9.8	-1.5	- 9.8	-1.5	- 9.8
B debt sales to private sector (-) (1)	+1.1	- 1.4	+0.7	- 2.4	+0.6	- 1.4
C external flows to public sector (-)	<u>+0.1</u>	<u>+7.8</u>	<u>+0.1</u>	<u>+7.8</u>	<u>+0.1</u>	<u>+7.8</u>
D public sector contribution (A+B+C)	-0.3	- 3.4	-0.7	- 4.4	-0.8	- 3.4
E Sterling lending (2)	+1.6	+53.2	+4.4	+74.9	+4.4	+74.3
F other counterparts (3)	<u>+0.3</u>	<u>-14.8</u>	<u>-1.3</u>	<u>-20.6</u>	<u>-1.2</u>	<u>-20.7</u>
Total (D+E+F)	<u>+1.6</u>	<u>+35.0</u>	<u>+2.4</u>	<u>+49.9</u>	<u>+2.4</u>	<u>+50.2</u>
Sterling lending (seasonally adjusted)	+3.1		+5.8		+5.8	
(average of previous 6 months)	+4.8		+7.0		+7.0	

(1) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

(2) Lending by the monetary sector (and, for M4 and M5, by building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(3) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

3 The PSBR was reduced in August by privatisation receipts of £2.2 billion, reflecting the second payment for BP shares.

4 Full monetary statistics for August, including revised estimates of the figures given above, will be published on 29 September.

Provisional estimates of monetary aggregates: August 1988

1 Provisional information suggests the following:

(order)	% changes		M0	M3	M4	M5
③	August 1988	(seasonally adjusted)	+ 1.0	+ 0.9	+ 1.2	+ 1.1
⑤	3 months to August 1988	(seasonally adjusted, annual rate)	+12.6	+26.7	+22.9	+21.8
⑥	6 months to August 1988	(seasonally adjusted, annual rate)	+10.8	+24.9	+20.5	+19.4
④	12 months to August 1988	(seasonally adjusted)	+ 7.6	+20.3	+16.9	+16.1
②	12 months to August 1988	(not seasonally adjusted)	+ 7.8	+20.1	+17.3	+16.5
①	August 1988	(not seasonally adjusted)				

2 Provisional counterparts to the changes in M3, M4 and M5 are:

£ billions, not seasonally adjusted

	M3		M4		M5	
	August	latest 12 months	August	latest 12 months	August	latest 12 months
A PSBR	-1.5	- 9.8	-1.5	- 9.8	-1.5	- 9.8
B debt sales to private sector (-) (1)	+1.1	- 1.4	+0.7	- 2.4	+0.6	- 1.4
C external flows to public sector (-)	+0.1	+7.8	+0.1	+7.8	+0.1	+7.8
D public sector contribution (A+B+C)	-0.3	- 3.4	-0.7	- 4.4	-0.8	- 3.4
E sterling lending (2)	+1.6	+53.2	+4.4	+74.9	+4.4	+74.3
F other counterparts (3)	+0.3	-14.8	-1.3	-20.6	-1.2	-20.7
Total (D+E+F)	+1.6	+35.0	+2.4	+49.9	+2.4	+50.2
Sterling lending (seasonally adjusted)	+3.1		+5.8		+5.8	
(average of previous 6 months)	+4.8		+7.0		+7.0	

(1) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

(2) Lending by the monetary sector (and, for M4 and M5, by building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(3) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

3 The PSBR was reduced in August by privatisation receipts of £2.2 billion, reflecting the second payment for BP shares.

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②	12 months to August 1988	(not seasonally adjusted)	+ 7.8	+20.1	+17.3	+16.5
①	August 1988	(not seasonally adjusted)				

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	M3		M4		M5	
	August	latest 12 months	August	latest 12 months	August	latest 12 months
<i>£ billions, seasonally adjusted</i>						
Public sector contribution	-1.0	- 2.8	-1.4	- 3.9	-1.4	- 2.9
Sterling lending (1)	+3.1	+53.4	+5.8	+75.1	+5.8	+74.4
Other counterparts (2)	-0.4	-15.4	-0.6	-22.4	-0.6	-22.4
Total	+1.8	+35.2	+3.9	+48.8	+3.8	+49.1
Sterling lending (average of previous 6 months)	+4.8		+7.0		+7.0	
Cumulative public sector contribution over the financial year so far	-1.8		-2.0		-2.2	
<i>Public sector contribution (£ billions, not seasonally adjusted)</i>						
PSBR	-1.5	-9.8	-1.5	-9.8	-1.5	-9.8
Debt sales to private sector (-) (3)	+1.1	-1.4	+0.7	-2.4	+0.6	-1.4
External flows to public sector (-)	+0.1	+7.8	+0.1	+7.8	+0.1	+7.8

(1) Lending by monetary sector (and, for M4 and M5, building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(2) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

(3) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

3 The PSBR was reduced in August by privatisation receipts of £2.2 billion, reflecting the second payment for BP shares.

4 Full monetary statistics for August, including revised estimates of the figures given above, will be published on 29 September.

HIBBERT COMMITTEE REPORT : ASSESSMENT

The Working Party which we set up under Jack Hibbert to look at the seasonal adjustment of the broad monetary aggregates has now delivered its final report. For reference, Annex 1 shows the membership of the Working Group and its Terms of Reference. Annex 2 gives its conclusions and recommendations.

The Report

2. Overall, we can be reasonably satisfied with the outcome. It is true that the Report recommends the continuation of published seasonally adjusted broader aggregates whilst a number of us in the Treasury have doubted the value of this. The evidence that was assembled for the Working Party suggests that the seasonal component in the broad money aggregates is at the low end of the spectrum of seasonality. But it is definitely there and of a strength comparable with that in other economic series which are routinely seasonally adjusted.

3. With time, it has become increasingly clear - and this certainly seems to have impressed the Committee - that the root of many of the problems we have experienced has not been seasonal adjustment itself but the way in which the adjustments have been carried out. The main difficulty is one of personalities. The head of the Bank's seasonal adjustment section looks and behaves like the caricature of a mad professor. He has little or no feel for what users want or what is likely to drive them up the wall. The Bank have a difficulty here: the post is one which is technically demanding but, at the same time, it is not one which has wide appeal or which senior Bank management necessarily regard as a priority area for staffing. On the other hand, the Treasury complaints which led to the setting up of the Working Party have had an impact. Senior Bank management is now clearly impressed with the need to maintain proper control over the seasonal adjustments and they have been keeping matters on a tighter rein. We have experienced relatively few difficulties with the adjustments over the last 2 years and that is not entirely a coincidence.

4. Most of the other recommendations are helpful:

a) the Report recommends regular review of the set of deterministic adjustments and the main body of the Report discusses a set of relevant criteria for making the choice. This should be an improvement. In the past, what factors have been given deterministic adjustments and what have not has seemed almost a matter of whimsy. On the criteria discussed, the Report believes there is a presumption that the bank interest charging deterministic adjustment should disappear. That would leave the PRT adjustment as the only one remaining. No doubt in a year or two, as North Sea revenues decline, that, too, will disappear;

b) the Report recognises the damage that has been done by past changes in methodology. There have been frequent and sometimes sizeable changes to the data, because of shifts in methodology, when the balance of advantage in the change has been dubious, to say the least. The Report recommends that the Bank should consult with the CSO and the Treasury before making any major change in future to ascertain the balance of advantage. This should give us added protection against the undisciplined behaviour of the seasonal adjusters that we have suffered in the past;

c) the Report says that the Bank should move to current updating of deterministic adjustments and current updating should be considered more generally. This is more important than it may sound, as can be seen from the example of the PRT adjustment in 1986. The present procedure is for the Bank to update the seasonals only once a year, usually around October or November, and these are used for the year ahead. The PRT adjustment is supposed to take out the effect on the monetary aggregates of PRT payments to the Exchequer, which, although not strictly seasonal, are justified as proper for adjustment because they are regular. To make the adjustment, in November 1985 the Bank had to forecast the oil price for the next 12 months to calculate the prospective PRT flows: these were incorporated in the seasonals. After the oil price fell in early 1986, it became increasingly obvious that the actual

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PRT flows were much below the Bank's projections. Yet the Bank's procedure meant that they had to use the original seasonals until November 1986 even though they were clearly inaccurate. When the November 1986 updating occurred the 12 month seasonally adjusted growth rate of M3 changed by around 3 per cent, solely because the Bank then substituted reality for the projections they had made a year before. To anyone not steeped in the Bank's seasonal adjustment traditions, this procedure is evidently ludicrous but the Bank has been firmly attached to it. Current updating will mean that the adjustment will reflect the current data as it becomes available - neither anticipating it for months ahead nor ignoring it for months after the event.

Conclusion

5. The conclusions of the Hibbert Report are far from startling. But its recommendations represent a significant step forward and should remove most of the irritating features of the Bank's methodology which have beset us in the past. On this basis, we should probably accept the Reports's findings.

Working Paper on the Seasonal Adjustment of the Monetary Aggregates1. Membership

Mr J Hibbert	(CSO)	Chairman
Sir T Burns	(HMT)	
Mr J Flemming	(Bank of England)	
Mr A Bain	(Midland Bank)	
Professor J Durbin	(LSE)	
Mr P Kenny	(CSO)	Secretary

2. Terms of Reference

- I. To review the extent of seasonality in the monetary aggregates.
 - ii. To examine the technical merits of different available methods of seasonal adjustment of the aggregates, taking into account:
 - a. The need to provide maximum assistance in interpreting the aggregates.
 - b. The treatment of non-seasonal influences that affect the underlying trend.
 - c. Any significant differences in the resource costs between one method and another.
 - d. The need to ensure consistency among different seasonally adjusted series.
 - e. The stability of the seasonal factors produced by the different methods.
- iii. To consider whether any changes should be made, and to make recommendations.

11. Conclusions and Recommendations

11.1 The Working Party reached the following conclusions:

- a. The broader monetary aggregates display less seasonality than many other typical economic series. Nevertheless, they have a seasonal component comparable in strength with that in other series which are published in adjusted form.
- b. External users of the data feel that they would need adjustments to cope with the seasonality. If no official series were produced, users would have to invent their own. The outcome would be confusing and inefficient.
- c. Revisions to the seasonal factors for the monetary aggregates have been much greater than for non-monetary series, compared to the respective levels of the series. Nevertheless, the observed instability of the seasonal adjustments is no larger, in proportion to the irregularity of the aggregates, than for other non-monetary data. There is no evidence that the revisions are due to any technical deficiency of the Bank's methods.
- d. Nevertheless, some courses are open to the Bank which might reduce revisions to seasonal factors. One is to use current updating, which would be expensive to operate globally but on the basis of other studies might be expected to reduce revisions by about 15%. Current updating of deterministic adjustments only would be less expensive but still worth while. A second is to minimise changes to methodology.
- e. The choice between stochastic and deterministic adjustments should be reviewed regularly. There is now a good case for changing bank interest adjustment to stochastic.
- f. The Bank should continue to ensure that the seasonally adjusted flow of funds matrix is balanced.
- g. Apart from the question of current updating, none of the issues discussed has any significant resource cost implications.

11.2 The Working Party makes the following recommendations:

- a. The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix.
- b. The Bank should review the choice of components for deterministic adjustment, with a presumption that bank interest is no longer a candidate for this method. The choice should be reviewed regularly.
- c. The Bank should minimise changes in methodology. This means that the potentially beneficial effects of any proposed change need to be weighed carefully against the disruption which users are liable to suffer in consequence. Before making any major change, the Bank should consult with the CSO and the Treasury to ascertain the balance of advantage.
- d. The Bank should use current updating of deterministic adjustments wherever feasible. The restriction on changing previously published seasonal adjustments should be relaxed where this will improve the effectiveness of current updating.
- e. The CSO should review the policy on updating seasonal adjustments, considering in particular the practicability of using current updating for stochastic adjustment. The Bank and the CSO should discuss the applicability of this review to the monetary aggregates.



CABINET OFFICE

Central Statistical Office

Great George Street, London SW1P 3AQ Telephone 01-270 6155

A.02186

From the Director: J. Hibbert

9 September 1988

Dear Peter,

SEASONAL ADJUSTMENT OF THE MONETARY AGGREGATES

I am happy to send you herewith the report of the Working Party on Seasonal Adjustment of the Monetary Aggregates which we agreed to set up under my chairmanship in December 1986. The recommendations of the report are shown in paragraph 12.2; briefly, they are that the monetary aggregates should continue to be published in seasonally adjusted form, but that the Bank should look again at aspects of their methods with a view to minimising revisions to published seasonal adjustments. One wider recommendation is that the CSO should review the policy on updating seasonal adjustments in official statistics generally to see whether methods leading to smaller revisions can be introduced.

The report has taken much longer to produce than was originally envisaged. Partly this is because it was necessary to commission simulation studies from research staff in the Bank and CSO, and these proved very time-consuming; it also took longer than we expected to reach an agreed view among the members of the Working Party. We took literally the view expressed at our meeting on 3 December 1986 that it was more important to get the report right than to report by any particular date.

The report contains nothing which would be regarded by any of the participants as confidential; if you think it appropriate it could be published or made available to interested parties. If you wish to make just a brief announcement of the recommendations of the report, this could consist either of the whole of paragraph 12.2 or a summary along the lines of the second sentence of my first paragraph.

I am copying this letter and report to Eddie George.

Yours sincerely

J HIBBERT

Sir Peter Middleton KCB
HM Treasury
Parliament Street
LONDON SW1

17/2/88

CENTRAL STATISTICAL OFFICE

REPORT OF THE WORKING PARTY ON
SEASONAL ADJUSTMENT OF THE MONETARY AGGREGATES

8 September 1988

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ANNEX A - METHODS OF SEASONAL ADJUSTMENT USED BY THE BANK OF ENGLAND

APPENDIX 1 - The Seasonal Adjustment of Money

APPENDIX 2 - Balancing

APPENDIX 3 - Deterministic Seasonal Terms

1. Terms of Reference, Membership and Method of Working

1.1 Following discussion between the Treasury, the Bank of England and the Central Statistical Office, the Working Party was set up in December 1986 with the following Terms of Reference:

- i. To review the extent of seasonality in the monetary aggregates.
- ii. To examine the technical merits of different available methods of seasonal adjustment of the aggregates, taking into account:
 - a. The need to provide maximum assistance in interpreting the aggregates.
 - b. The treatment of non-seasonal influences that affect the underlying trend.
 - c. Any significant differences in the resource costs between one method and another.
 - d. The need to ensure consistency among different seasonally adjusted series.
 - e. The stability of the seasonal factors produced by the different methods.
- iii. To consider whether any changes should be made, and to make recommendations.

1.2 The membership of the Working Party was as follows:-

Mr J Hibbert (Central Statistical Office) - Chairman
Sir Terence Burns (HM Treasury)
Mr J Flemming (Bank of England)
Mr A Bain (Midland Bank plc)
Professor J Durbin (London School of Economics)
Mr P B Kenny (Central Statistical Office) - Secretary

1.3 At its first meeting, the Working Party discussed the interpretation to be given to the expression "the monetary aggregates", and agreed to concentrate its attention on what is now called M3 (then known as sterling M3). It was believed that any conclusions drawn about M3 could reasonably be expected to apply to other aggregates, though in framing its general recommendations the Working Party would have to consider any differences which might appear between M3 and other aggregates. Developments since the Working Party was set up make it likely that M4 will receive more attention. The conclusions reached about M3 should apply to M4.

1.4 The Working Party has not sought evidence from other organisations or individuals. It began with a paper from the Bank of England describing the present organisation and recent history of the seasonal adjustment of monetary data; it then commissioned various studies from the Bank of England and the Central Statistical Office to clarify points which had come up in the course of its discussions. The Bank of England also provided further details of some components of the monetary data to illustrate the methods used. Limited simulations were carried out to discover the effect of various proposed modifications of existing methods.

2. Present Methods and Recent History

2.1 A full account of the methods now used and the changes over the last few years is given in Annex A. Briefly, M3 and the other monetary aggregates are seen as part of a system which is represented by the flow of funds matrix, in which transactions are classified by types of financial instrument (rows) and by institutional sectors (columns). The matrix before seasonal adjustment is balanced, that is each row and each column sums to zero. The seasonal adjustment method is constrained by the requirement that the matrix after adjustment shall still be balanced. Where the results of seasonal adjustment of the components do not lead to a balanced matrix, a separate balancing process is used to enforce this constraint.

2.2 Each series in the matrix is seasonally adjusted using a method which is judged by the Bank to be appropriate to its characteristics. For the great majority of series the method used is of the class known as stochastic, which essentially assumes that the pattern of seasonal variation is stable or evolving smoothly in time and hence may be estimated by some form of moving average of the data. Two stochastic procedures are in use by the

Bank: SADJMO (and its quarterly variant SADJQU), based on research published in 1965, explicitly uses moving average procedures to define the seasonal pattern, while the signal extraction method, published in 1980, uses a Box-Jenkins ARIMA model of the unadjusted series to provide an indirect definition of the appropriate moving average.

2.3 For some series it is judged that the assumptions underlying stochastic methods do not apply. Usually these are series for which the seasonal pattern undergoes an abrupt change, or for which the size of the seasonal effect changes with some external factor. For these series a method known as deterministic adjustment is used. This method treats the objective of the adjustment as being to achieve a smooth path for the adjusted series within the year. The adjusted series is therefore defined by setting each monthly value to the average of the unadjusted values. The adjustment of the current year requires forecasts of the unadjusted values for the remainder of the year. (In some cases a smoothing period other than a year is appropriate; periods of six months or three months are used.) At present the only deterministically adjusted series which affect the monetary aggregates are bank interest and Petroleum Revenue Tax (PRT).

2.4 The use of deterministic adjustment simplifies the balancing problem, because the same method can be used for series and for their counterparts and the adjustments will automatically balance. For stochastically adjusted series the same is not true; except in very artificial circumstances the estimated stochastic seasonals of a balanced matrix will not themselves balance. The Bank therefore distribute the balancing errors around the matrix in such a way as to achieve balance. The balancing method reflects the structure of the data and hence of the financial system. In some cases one element of a row or column is identified as a residual, and its seasonal is defined as minus the sum of the other seasonals. In other cases several cells are considered as adjustable, and the balancing error is distributed according to a smoothness criterion.

2.5 The method outlined above describes what is done at the annual update of seasonal adjustments. For the months between updates a simpler procedure based on projected seasonals is used. This is necessary because the time available requires a simpler and quicker procedure and because it is customary to publish one month in advance the seasonal adjustments which will be used for the next set of figures; the latter feature is intended as a guarantee of the integrity of the adjustment procedure. The construction of a set of balanced projected seasonals which can be published in advance adds two extra projection processes to those which are normally involved in projecting seasonals:

- a. Any components which are subject to multiplicative stochastic adjustment must have the projected multiplicative factors expressed in additive form; this requires a projection of the trend.
- b. Components which are deterministically adjusted must be projected to the end of the current smoothing period.

2.6 These procedures have been designed for use in the present environment, in which monthly data are collected for calendar months. In the period up to September 1986 monthly data related to banking months, which were reporting periods designed to avoid biasing the data through end-of-week or end-of-month effects; a banking month was always an exact number of weeks and ended on a Wednesday near the middle of the month. The use of banking months data involved many additional complications in the seasonal adjustment procedure, because for example an interest payment in the June calendar month might be in banking June in one year and banking July in the next. Prior adjustments were made to allow for variations in the occurrence of such events as PAYE collection or bank interest payments in relation to banking months. These adjustments were often estimated, and hence contributed some uncertainty to the seasonal adjustment. In the calendar month system there may be effects due to the day of the week on which the month begins or ends. Appropriate allowance is made for this and other calendar effects, for example by using data on daily variations in the note and coin circulation to prior adjust the calendar month data before seasonal adjustment.

2.7 In recent years there have been many changes to the details of the adjustment methods, apart from the major change to calendar month data. These could include the introduction of deterministic adjustment for a particular component or a change from one stochastic procedure to another. There have also been changes to the way in which balancing is carried out. However, the general pattern of the adjustment procedure has been as described above throughout recent years.

3. Objectives of Seasonal Adjustment

3.1 At its first meeting the Working Party considered how to define the objectives of seasonal adjustment of the monetary aggregates from two points of view:

- a. The uses which are made of the seasonally adjusted data.
- b. The desirable characteristics of the seasonally adjusted data.

3.2 Data on the monetary aggregates is used widely both inside and outside government. The Treasury regards the behaviour of the aggregates as important evidence within its continuous assessment of monetary conditions. Equally, outside analysts attach weight to it. For either class of users, it will be important to distinguish within-year movements such as the pre-Christmas build-up in cash in circulation from more fundamental changes.

3.3 If the monetary aggregates are indeed seasonal and were there to be no official seasonal adjustment, a large number of users would have to attempt to estimate their own seasonal factors. This would be both expensive and inefficient. On the other hand, users cannot expect official figures to estimate the underlying trend. Individual users must decide for themselves what allowance to make for special factors such as privatisations and how much to discount the evidence of apparently erratic month-to-month variations.

3.4 The focus of the discussion of desirable characteristics of the seasonally adjusted data was on the definition of seasonality. One attempt at a comprehensive definition was that seasonality consists of within-year movements which are recurrent, predictable and roughly periodic. This would include the effects of institutional arrangements such as tax collection and the payment of interest on government stocks or bank deposits, together with the effects of holidays on cash holdings, and also calendar effects which are not strictly periodic such as length of month variation (not so important in the calendar month system) and the effect of Easter.

3.5 It was recognised that the terms recurrent, predictable and periodic are also matters of degree rather than absolute qualities, and that it might be a matter of judgement whether a factor was sufficiently predictable or periodic to justify its inclusion as seasonal. For example, changes to the rules on tax collection can produce variations which do not appear strictly periodic when viewed over a period including the change, but nevertheless the rules are sufficiently stable to make us wish to regard the effect as seasonal.

4. Difficulties with the Present Situation

4.1 To provide background to its discussion of the matters raised in the Terms of Reference, the Working Party sought to establish in what ways the present situation is unsatisfactory.

4.2 The Treasury view was that the present system is seen as complex and poorly understood, and that confidence in the results is undermined by the scale of revisions after first publication. The motivation for the many minor changes in methodology was not clear, and the frequency of changes led some users to question the objectivity of the adjustment. There was also evidence that some users misunderstood the objectives of the adjustment and assumed that the seasonally adjusted series was itself an estimate of trend. Finally, there was doubt as to whether the currently available series of calendar month data, which is largely constructed from data from a limited sample of banks, gave a reliable basis for seasonal adjustment.

4.3 The Working Party did not at this stage form a view on the importance of these problems. It was noted that revision of the seasonal factors was one of the issues raised in the Terms of Reference, and it would be necessary to study the effect of different methods of adjustment on the scale of revisions. Complexity of a system is not necessarily a drawback, however. The appropriate reaction to a comment that a system is complex and poorly understood could be either to produce a simpler system or to produce a better explanation of the necessary complexity.

5. Extent of Seasonality in the Monetary Aggregates

5.1 The first point of the Terms of Reference is to review the extent of seasonality in the monetary aggregates. This does not have a simple answer, since there is no unique way of measuring the degree of seasonality of a series. There are measures which say in effect how strong is the seasonal variation identified by a given adjustment method, or equivalently how much of the total variation is removed by a given adjustment method, and hence are strongly dependent on the method chosen. No measure is completely independent of adjustment method, though it may be found that some measures are little affected when alternative methods are used.

5.2 In the absence of any absolute measure it is sensible to look at comparative measures. Given a series, say M3, and a method of measuring degree of seasonality, one can ask two questions:

- a. Which other series have a similar degree of seasonality according to this measure, and what is done about seasonally adjusting them?

- b. Taking a wide range of other series ranked in order of degree of seasonality according to this measure, where does our chosen series (M3) fit in this ranking?

To the extent that the answers to these questions are independent of the chosen measure of seasonality one can have confidence that the measurement of seasonality is objective and meaningful.

5.3 The analyses that have been carried out to produce the comparative measures for M3 have all been based on the US Census Bureau X-11 procedure. Seasonal adjustments using X-11 were carried out for M3 and for each of its four major components. From each adjustment two measures were selected, the F-test for stable seasonality and the percentage of variation attributable to seasonality. These two measures are not measuring exactly the same thing; the first indicates how much variation can be accounted for by a fixed seasonal pattern, while the second shows the effect of the possibly mobile seasonal fitted by X-11.

5.4 To provide the background to answer the second question above, a group of 185 other series was taken for comparison. To simplify the analysis all these series were components of the index of production for which the necessary X-11 adjustments were already available. There is no meaningful definition of what constitutes a representative sample of series for comparison, but it can be noted that the 185 series cover a range from 12% seasonality, with an F-value just above the border of significance, to 98% seasonality. No selection process was applied other than the selection of their source, and it seems reasonable to regard them as typical of series which are regularly published or used in seasonally adjusted form.

5.5 The plot at Figure 1 shows the scatter of the measures of seasonality for the 185 series, with the points for M3 and its components superimposed. It can be noted immediately that the monetary points lie close to the curve describing the general pattern of the comparison series, though M3 and three of the components lie a little above the central curve. This latter fact may not be significant, but to the extent that it is it indicates a tendency for the monetary series to have more mobile seasonality than the majority of the comparison series.

5.6 Looking at the ranking of the monetary series, it is found that about 3% of the comparison series are less seasonal than M3, while about 30% are less seasonal than non-interest-bearing sight deposits and 70% are less seasonal than notes and coin. The remaining two components, time deposits and interest-bearing sight deposits, have about 1% of the comparison series below them in the ranking.

5.7 These results quantify what is already known in qualitative terms, namely that the strongest seasonality lies with the "narrow money" components, while the "broad" components and aggregate M3 are quite low in the spectrum of seasonality. However, it should be emphasised that the spectrum of comparison series consists of series which are all considered seasonal and are routinely seasonally adjusted. Thus, in answer to the first question above, for M3 and for each of its components it is possible to find at least one series with a comparable degree of seasonality which is used in seasonally adjusted form. Even for the least seasonal components seasonality accounts for more than a third of the month-to-month variation.

6. Alternative Methods of Seasonal Adjustment

6.1 The second part of the terms of reference required the Working Party to consider different available methods of seasonal adjustment from various angles. In its discussions the Working Party identified a number of possible variations on the existing procedure. None of these could be described as a completely different method of adjustment, and this would not be expected, since all approaches to seasonal adjustment have a great deal in common.

6.2 The variations identified, with comments on the benefits and problems they might produce, are as follows:

- a. Replace the stochastic adjustment methods used by the Bank of England with a more widely used method, such as the US Census Bureau X-11 method. The Bank's methods are used only at the Bank, and there could be presentational problems in describing their use; it is easier to refer to Census X-11, which is a de facto international standard. However, there is no reason to expect any systematic difference in the results of the adjustment. The SADJMO method

has a great deal in common with X-11, and with appropriate parameter settings the two could be made to produce very similar results. The signal extraction method has a very different basis, but in practice the results do not seem to be very different. Although on certain theoretical arguments signal extraction is preferable to moving average methods, it is rarely used because of the difficulty of fitting satisfactory ARIMA models to financial series.

- b. Change the division of components between those which are adjusted stochastically and those which are adjusted deterministically. The concept of deterministic adjustment is an unfamiliar one outside the monetary field, the procedure having been devised to deal with problems such as sudden administrative changes in seasonal patterns of tax collection. Apart from the presentational problems there are practical problems in applying the method to current data because it may be necessary to forecast the total payment of a particular tax over a year in order to spread it uniformly over the months. Errors in these forecasts will lead to revisions when actuals become available. The alternative of using stochastic adjustment will also involve forecasts, at least implicitly, and will also lead to revisions; since stochastic methods are based on moving averages the revisions will be spread over several years, whereas with deterministic adjustment the revision will normally be complete as soon as actuals have replaced forecasts. When there are sudden changes in seasonal pattern the deterministic adjustment will always cope better.
- c. Remove the requirement that the seasonally adjusted flow of funds matrix shall balance. The balancing adjustments made to the seasonally adjusted components may themselves be a source of instability; a revision made to one component could spread throughout the matrix because of the balancing. However, interpreting the movements of an unbalanced matrix would be much more difficult.
- d. Use "current updating" in place of projected seasonal factors wherever possible. For a stochastic adjustment procedure, current updating means that the seasonal factors are re-calculated each month using all data up to and including the current month's unadjusted figure. It has been shown that this will reduce the future revisions of the initial seasonally adjusted value. In addition, for series with multiplicative seasonality it would remove the need to project the trend. For deterministic adjustment the concept of current updating is different, since the new monthly value may convey no information about the evolution of the seasonal pattern. However, the forecasts underlying

deterministic adjustment can sometimes be updated in the light of new information between monthly runs, and this will ensure that the adjustment uses all available information. The complication introduced by current updating is its effect on balancing; if all stochastic adjustment factors are updated monthly it is necessary to re-balance the matrix for each month, which could lead to an unacceptable increase in workload.

- e. Change the frequency of publication of revisions. At present a figure once published is not revised until the next annual update. This introduces some constraints on the possibility of taking on board new information. It may also mean that revisions are delayed and saved up to give a substantial change at the annual update, when they could be allowed to influence the results as soon as information is available, so spreading the revision.

6.3 It will be evident that there are interactions between the possibilities introduced by these variations in method. For instance, current updating is easier if there is no need to balance, while the effective use of current updating may require the publication of revisions more often than once a year. However, it is convenient to consider them separately.

7. Sources and Magnitudes of Revisions

7.1 One factor which the Terms of Reference require the Working Party to consider in evaluating alternative methods is the stability of the resulting adjustments. This is mentioned last in the Terms of Reference, but it was clear from the preliminary discussions that it is a factor of considerable concern to users, and it is therefore considered first here.

7.2 The only way to guarantee that there will be no revisions to seasonally adjusted figures is to adopt a procedure which bases the final adjustment of each figure only on information available at the time the figure is first published. Such a procedure may be called one-sided, and will clearly give inadequate results. The revision can be minimised by making the initial estimate, which must necessarily be one-sided, as close as possible to the final form. At the minimum this means that all available information should be used by the initial estimate, which implies current updating. Further improvements can be made by constructing the initial estimate from a combination of the eventual two-sided procedure and a forecasting model of the unadjusted series; this is the basis of the Bank's signal extraction method.

7.3 Empirical studies have shown that the use of current updating gives the biggest reduction in revisions compared with standard methods, while the use of forecasting gives a modest further improvement. Other experiments have shown that different stochastic methods do not differ appreciably in the amount of revision when they are used in a consistent way.

7.4 Apart from the updating of stochastic adjustments, other sources of revision have been identified:

- a. Updating of deterministic adjustments when forecasts are replaced by actuals.
- b. Changes of adjustment methodology, such as:
 - i. Change from stochastic to deterministic adjustment.
 - ii. Change of stochastic adjustment method.
 - iii. Change of balancing procedure.
- c. Revisions to the unadjusted data (though these are seldom of much significance).

7.5 Some investigations of the magnitudes of revisions from different sources have been carried out by the Bank and the CSO. An analysis of the revisions in the 1985 update of M3 seasonals showed that, for the most recent period where the seasonals were being updated for the first time, the largest single source of change was a modification of the length-of-month adjustment, mainly due to the introduction of an adjustment for gilt-edged interest. The next largest source was the updating of stochastic adjustment factors, together with some changes to the choice of stochastic methods. The third largest source was updating of deterministic seasonals due to replacement of forecasts by actuals. Fourth came a modification to the method of allocating balancing discrepancies, while the remainder was due to the normal process of updating the balancing.

7.6 The same analysis gave more limited information about the revisions in the period before the most recent year. Because worksheets used for routine checking had not been preserved by the Bank it was not possible to give a complete breakdown of these revisions.

What was clear, however, was that the relative importance of revisions to deterministic seasonals declined as earlier periods were examined; the second update produced much smaller changes to deterministic seasonals than the first, and after the second update there were no further changes.

7.7 The Bank carried out simulations to show the effect of replacing deterministic adjustment by stochastic adjustment. The simulations could not be made entirely realistic because many of the details of the former banking month system are now impossible to reconstruct. However, as far as possible the comparisons were made between systems which were identical apart from this one methodological change. Three conclusions were reached:

- a. The average revisions over the historical part of the series showed little difference between deterministic and stochastic adjustment.
- b. The part of the series adjusted using projected factors showed smaller revisions with deterministic adjustment than with stochastic, though this must be qualified by the fact that in some cases the contemporaneous forecasts needed for deterministic adjustment were no longer available and were replaced by actuals.
- c. When an abrupt change in a seasonal pattern occurs, such as the change in collection dates of PRT in 1980, the deterministic adjustment rapidly accommodates the change, while stochastic adjustment shows a distortion of seasonal patterns affecting figures on each side of the change; this distortion is not removed by later updating.

7.8 The Bank also investigated the effect of using current updating on the components which are adjusted deterministically. For bank interest the forecasts are in fact updated monthly in the light of information on changing interest rates; the only revision in the actuals will be because of later information on the size of balances on which interest is paid or charged. For PRT the forecasts have not been updated. There have been discussions with the Inland Revenue to see how far forecasts of PRT can be updated in the light of new information on oil prices and production, and whether the updated forecasts would allow better initial adjustments. For either component it is clear that effective current updating requires the relaxation of the rule that a published adjustment must not be changed until the next annual update. With this proviso the use of current updating of deterministic adjustment is clearly beneficial.

7.9 The CSO investigated whether some characteristics of the monetary series might make their seasonal patterns so unstable that seasonal adjustment is not worth while. A method proposed by the Research Section of the US Census Bureau was adapted for this case; essentially, this involved examining the size of the revision on update of a standard stochastic method. This analysis was applied to M3 and to its four major components, and also to a few other series selected to have the same degree of seasonality as M3. The following conclusions were reached:

- a. The revisions to all the monetary series were much higher, in relation to the level of the series, than for the non-monetary series selected for comparison. This was equally true for the highly seasonal notes and coin, at one end of the scale, and for the just significantly seasonal time deposits at the other.
- b. For all the series studied, monetary and non-monetary, the revisions to seasonal factors were roughly proportional to the degree of irregularity of the series. All estimates of stochastic seasonality will of necessity include some contribution from the irregular components of the series; the instability of the estimated seasonal factors arises more from this source than from any instability of the underlying seasonality of the series.

7.10 The Bank also enumerated the changes in methodology in recent years which have led to revisions. As mentioned in 7.5 above, in some periods methodology changes have been the largest source of revisions. The Working Party felt that the Bank could adopt more stringent rules on changes in methodology, weighing the benefit of a better adjustment against the disadvantage of a revision to published figures, and investigate ways of smoothing in any change which was decided on.

8. Consistency Among Seasonally Adjusted Series

8.1 The main requirement for consistency among seasonally adjusted series is that the flow of funds matrix, which is balanced before seasonal adjustment, should still be balanced after adjustment. The Working Party considered this requirement from three points of view:

- a. Could any method of adjustment be found which would guarantee that the adjusted matrix would be balanced without any special balancing adjustment?

- b. If this requirement were relaxed, would there be any significant simplification of the adjustment process?
- c. Would an unbalanced seasonally adjusted matrix be acceptable?

8.2 On the first point, balancing can only be guaranteed if very unrealistic restrictions are placed on the stochastic methods used. The restriction is that all adjustments must be made by the same additive method, with no adjustment for extreme values. This is not an option that seems acceptable on technical grounds, whatever adjustment method is chosen. The only other way is to adjust, at the lowest component level, all but one of the components in each row or column of the matrix, and then define the seasonality of the remaining component to ensure balance. In some parts of the system this is now done, but it cannot be applied throughout.

8.3 Several members of the Working Party expressed a firm view that movements in an unbalanced matrix would be difficult to interpret, and that for this reason the requirement of balance should be maintained.

8.4 The balancing requirement certainly imposes an extra workload on the Bank, though the method now used makes it less onerous. Clearly, this workload would be increased if monthly current updating were introduced.

9. Resource Costs

9.1 The Terms of Reference require the Working Party to take into account "any significant differences in resource costs between one method and another". Since the seasonal adjustment is now deeply embedded in a largely automatic system for handling the complete monetary data it is difficult to isolate the resource costs associated with any method, and particularly the changes in costs associated with a hypothetical change of method. However, the Bank have tried to judge which of the possible changes discussed above would produce significant changes of resource cost. The quantification of these costs is very doubtful; only the relative ordering can be asserted with any confidence. The costs referred to here are running costs; any change would also incur transitional costs, which have not been considered.

9.2 There is little doubt that the most expensive of the changes considered would be a general move to current updating for all components, whether stochastic or deterministic. This would require the monthly re-running of stochastic adjustments, monthly updating of forecasts for deterministic adjustments, and the establishment of a system to re-balance the matrix each month. The Bank question whether it is in fact feasible to introduce such a change. They cannot yet see how exactly the procedure could work, and hence cannot give any estimate of the cost; they can only say that it would be very expensive. The major part of this cost would come from the stochastic updating and re-balancing; deterministic updating alone would be much less expensive.

9.3 The second largest change in cost terms would be the abandonment of balancing. With the present system the cost is largely computer time, though the results are subject to scrutiny to check that the method is operating reasonably. The machine time savings would be less than with earlier, more complex, methods of balancing; exact costs are not available, but they would be unlikely to exceed £1000 a year.

9.4 Replacement of deterministic by stochastic adjustment could produce changes either way. In computing terms deterministic adjustment is much simpler than stochastic, but the forecasts may involve greater human effort. The structure of the system might become simpler if some deterministic components became stochastic, since they could be absorbed in larger aggregates. However, it is unlikely that any such change would have a significant effect on costs.

9.5 Replacement of one stochastic method by another is unlikely to have a significant effect on costs. The signal extraction method is known to be more expensive than the moving average methods, both in machine time and in human costs, but it is in any case little used. Replacement of one moving average method by another (eg SADJMO by Census X-11) would have a negligible effect on costs.

10. Criteria for choosing between deterministic and stochastic adjustment

10.1 The Working Party recognised that the choice of deterministic or stochastic adjustment for a given component could have an effect on the properties of the adjusted series, and decided that as far as possible specific criteria for the choice should be laid down. Stochastic adjustment is regarded as the norm, the change to deterministic being made only when it has clear benefits. Three criteria were proposed, with the rule that a component must satisfy all three to justify deterministic adjustment:

- a. The pattern of within-year variation must change from year to year in a way which could not be captured satisfactorily by a moving average procedure. This would include the case where the dates of the seasonal peaks change (eg due to changes in tax collection dates) and the case where the sizes of the peaks change rapidly (eg the changes in PRT payments due to large changes in the price of oil). A single large step change could qualify, as could a series of changes which together constituted a pattern too mobile to be tracked by a moving average.
- b. The changes in within-year variation must be predictable with sufficient accuracy. Clearly perfect accuracy is not achievable, but the revisions due to errors in the predictions must be less than the revisions which would occur with a stochastic adjustment.
- c. The within-year variation of the component must be large enough, in relation to the seasonality of the aggregate, to make the effect of the change significant when viewed against the inherent uncertainty of estimating the aggregate seasonal. The Working Party did not agree on a quantified criterion, though it was suggested that the variation of the component should perhaps be 10% or even 25% of the aggregate seasonality to qualify. An alternative would be to relate the change in the adjustment of the component to the uncertainty of the aggregate seasonal, which, as shown by the studies mentioned in paragraph 7.9, is proportional to the irregularity of the aggregate series.

10.2 It is also necessary to have criteria for deciding whether a component which is adjusted deterministically can revert to stochastic adjustment. There will be a presumption that deterministic adjustment, once introduced, will be retained for at least five years. In exceptional circumstances, for instance if the disruptions which led to its introduction are much less severe than expected, the decision may be reversed within five years. After five years the decision should be reviewed annually. The criteria for reversion to stochastic seasonality are:

- a. The pattern of within-year variation has become stable enough to allow the use of a stochastic adjustment procedure, taking account of the minimum length of data required by the procedure.

- b. No disruptions of the pattern, of a kind which might justify a return to deterministic adjustment, are foreseen.

10.3 The Working Party considered whether the criteria in paragraph 10.2 suggested that either bank interest or PRT could now be changed to stochastic adjustment. The view was that bank interest is a candidate, particularly because bank interest payments are usually made in specified calendar months and hence show a more stable pattern in the calendar month system now in use. The pattern of PRT flows is still affected by volatility in the oil market, so that it should probably continue to be adjusted deterministically.

11. Current Updating

11.1 The Working Party had considered current updating from the points of view of cost, benefits and practicality. The considerations involved were different for the cases of deterministic and stochastic adjustment.

11.2 Current updating of deterministic adjustment depends on the availability of updated forecasts of the profile of the series during the current adjustment period. Where such forecasts exist they can be used to produce improved adjustments for the remainder of the period; if the revision of figures already published is allowed, the adjustments produced can be even closer to the final values. The production of updated deterministic adjustments is unlikely to be difficult or expensive.

11.3 Current updating of stochastic adjustments means re-running the stochastic adjustment procedure each month as new figures are included in the series. It has been shown in other studies that this is likely to reduce eventual revisions by about 15%. In itself this procedure will only impose additional costs for computer time, but it will cause further problems because of the effect of revisions on the balancing of the matrix. It is not clear how these problems can be resolved, or at what cost. The desirability of stochastic current updating is of wider interest in official statistics, and the issue should be reviewed in that context before conclusions are drawn for the monetary aggregates.

12. Conclusions and Recommendations

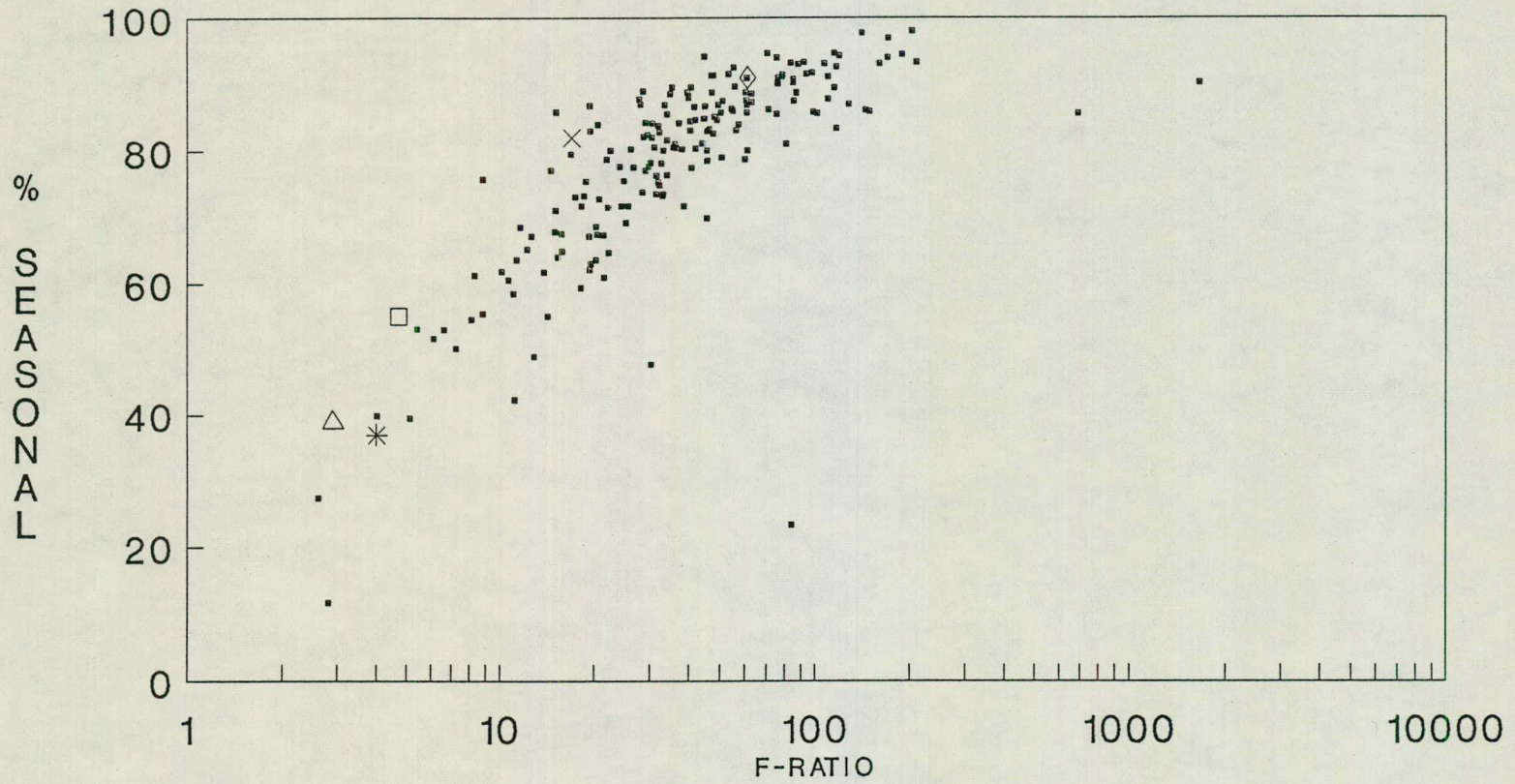
12.1 The Working Party reached the following conclusions:

- a. The broader monetary aggregates display less seasonality than many other typical economic series. Nevertheless, they have a seasonal component comparable in strength with that in other series which are published in adjusted form.
- b. External users of the data feel that they would need adjustments to cope with the seasonality. If no official series were produced, users would have to invent their own. The outcome would be confusing and inefficient.
- c. Revisions to the seasonal factors for the monetary aggregates have been much greater than for non-monetary series, compared to the respective levels of the series. Nevertheless, the observed instability of the seasonal adjustments is no larger, in proportion to the irregularity of the aggregates, than for other non-monetary data. There is no evidence that the revisions are due to any technical deficiency of the Bank's methods.
- d. Nevertheless, some courses are open to the Bank which might reduce revisions to seasonal factors. One is to use current updating, which would be expensive to operate globally but on the basis of other studies might be expected to reduce revisions by about 15%. Current updating of deterministic adjustments only would be less expensive but still worth while. A second is to minimise changes to methodology.
- e. The choice between stochastic and deterministic adjustments should be reviewed regularly. There is now a good case for changing bank interest adjustment to stochastic.
- f. The Bank should continue to ensure that the seasonally adjusted flow of funds matrix is balanced.
- g. Apart from the question of current updating, none of the issues discussed has any significant resource cost implications.

12.2 The Working Party makes the following recommendations:

- a. The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix.
- b. The Bank should review the choice of components for deterministic adjustment, with a presumption that bank interest is no longer a candidate for this method. The choice should be reviewed regularly.
- c. The Bank should minimise changes in methodology. This means that the potentially beneficial effects of any proposed change need to be weighed carefully against the disruption which users are liable to suffer in consequence. Before making any major change, the Bank should consult with the CSO and the Treasury to ascertain the balance of advantage.
- d. The Bank should use current updating of deterministic adjustments wherever feasible. The restriction on changing previously published seasonal adjustments should be relaxed where this will improve the effectiveness of current updating.
- e. The CSO should review the policy on updating seasonal adjustments, considering in particular the practicability of using current updating for stochastic adjustment. The Bank and the CSO should discuss the applicability of this review to the monetary aggregates.

FIGURE 1: SPECTRUM OF SEASONALITY
(MONETARY AND NON-MONETARY SERIES)



□	M3	•	NON-MONETARY	*	TIME DEPOSITS
△	IBSD	×	NIBSD	◇	NOTES & COIN

METHODS OF SEASONAL ADJUSTMENT USED BY THE BANK OF ENGLAND

The methods of seasonal adjustment used by the Bank are described in the attached appendices. Appendix 1 gives a broad overview with Appendices 2 and 3 giving, respectively, extra detail on balancing to enforce the flow of funds constraints and on handling deterministic seasonals (element 2 below).

The methods can best be explained by describing seven elements into which a statistical series may be decomposed and how they relate to the objectives of seasonal adjustment. The seven elements consist of:-

- 1 Trend
- 2 Deterministic seasonal terms
- 3 Other calendar effects
- 4 Stochastic seasonal terms
- 5 Identifiable outliers
- 6 Random unspecified outliers
- 7 Noise

Only elements 2, 3 and 4 require to be removed in order to produce a seasonally adjusted series. Examples of deterministic influences, which are important in many monetary series, are the periodic interest charging and crediting by banks, and many recurrent (though not necessarily regular) government transactions. The influence of movable feasts like Easter, is an example of 'other calendar effects'. 'Stochastic seasonal terms' cover the effects of seasonal patterns of behaviour in a wide variety of economic activities, eg in the financing of the agricultural harvest, or in consumer spending.

Quite apart from random noise, of which there is a great deal in financial data and which it is not the objective of seasonal adjustment to remove, unadjusted series will be affected by various specific but non-recurring transactions (identifiable outliers - 5 above). Privatisations have provided recent examples. Removing their effects from the time series does not fall within the objectives of seasonal adjustment. But it remains important that the technique of adjustment should enable these transactions to be separated out so that they do not contribute, falsely, to the estimates of seasonal variation that are applied to the current and to future years.

APPENDIX I**THE SEASONAL ADJUSTMENT OF MONEY**
(and of its components and counterparts)

This paper outlines the construction of quarterly and monthly seasonal adjustments for M3, bank lending, etc. Subject to modifications arising from lack of long runs of calendar month data, this approach was used in 1986 to construct calendar monthly/quarterly adjustments. The approach used by the Bank rests on the requirement to produce seasonal adjustments satisfying the accounting constraints of the flow of funds matrix which results in the 'balancing' described below and in Appendix 2: and on the decomposition of time series as described in the main paper. By way of a footnote to that paper's description of the decomposition, it should be observed that 'Deterministic seasonal term' is intended to embrace any seasonal regressors independent of other elements of a series. Such regressors could in principle be stochastic processes themselves.

This approach requires in logic at least the simultaneous estimation of the elements of each series and possibly of the cross-linkages established by deterministic seasonal terms and other calendar effects. In the past even the former has been precluded by lack of appropriate software, so the practice has been to undertake the decomposition sequentially.

Sectoral components form the basis of this approach

The seasonal adjustments applied to M3 are built up of adjustments applied to the following components:

Notes and coins held by the private sector	
Sight deposits	"
Time deposits	"

These adjustments are themselves further sub-divided amongst the personal, industrial and company, and other (ie non-bank) financial sectors. This division has two purposes. It is firstly aimed at assisting short-term financial forecasting and historical analysis. (The overall purpose of seasonally adjusting M3 and other financial data has been dealt with elsewhere.)

Secondly, it is aimed at improving the efficiency with which the seasonal patterns are estimated. In the case of the various series for changes in levels of private sector deposits, it is supposed that the data overwhelmingly represent bilateral transactions between banks and their customers. Thus the figure for the banking sector represents an aggregate of several separately identifiable series. These series will tend to have different seasonal patterns, especially as between the various sectors. These different patterns are to a large degree generated by the crediting or debiting of interest (which reflects a sector's use of different types of deposit or lending facility) and by the tax system which applies different taxes to companies and persons and which requires their payment at different times. (A more detailed schedule of the most important taxes and their seasonal patterns is in Appendix 5 which also describes their seasonal adjustment.)

Prior Adjustment

The first step is to remove items 2, 3 and 5. Identifiable outliers are removed either by estimating these directly from other data or by regressing the series on a range of harmonics together with a dummy at the relevant point in time. Such outliers have been estimated inter alia in August 1984 for the 28th Issue National Savings Certificates, in November 1984 for the sale of British Telecom and look likely to be the appropriate procedure for the impact of the sales of British Gas and the TSB.

Also removed at this stage are calendar effects not always associated with seasonality - these may not add to zero over a year. There are many fewer such adjustments necessary now given the recent switch to calendar month reporting but remaining examples in the context of money are the impact of Easter and the day of the week effect on notes and coins.

Deterministic seasonal patterns, or seasonal patterns with a single identifiable exogeneous source, are estimated or reported separately. Examples of these are interest payments and payments of PRT by oil companies operating in the North Sea.

At this stage, the opportunity is also taken of removing unnecessary noise and/or of making the seasonal pattern more stable by combining the series with another. The clearest example of this is the seasonal adjustment of bank lending to industrial and commercial companies and of the Issue Department's transaction in commercial bills as a single aggregate. In this way the arbitrary variation between the two as a source of company finance is removed and only returns when a detailed sectoral and instrumental breakdown of bank lending is needed.

Stochastic seasonality

After prior adjustment, one or other of the seasonal adjustment programs available to the Bank is applied to the series. At present, either a moving average seasonal adjustment program¹ (SAJDOU) or one based on minimum signal extraction² is employed. X-II is not used, neither its original form nor the X-II ARIMA version. Comparative studies between X-11 and SADJOU³ did not give clear dominance to either program but the more rigid filters employed in SADJOU were thought by J P Burman to produce more robust seasonals less prone to revision. (Methods based on signal extraction were not available when the FRB adopted X-II ARIMA.)

The advent of model based seasonal adjustment has made it easier in principal to estimate the stochastic seasonal terms simultaneously with the effects 2, 3 & 5 above. This approach has been employed on Supply Expenditure and Schedule E Income Tax (PAYE) but it has proved extremely difficult to identify appropriate noise models for the main deposits series so the moving average program has been

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- 1 'Moving Seasonal Adjustment of Economic Time Series' by J P Burman JRSS (A) Vol 128 pt 4 pp 534-558.
 - 2 'Seasonal adjustment by signal extraction' by J P Burman JRSS (A) Vol 143 No 3 pp 321-337.
 - 3 'A comparative study of nine alternative methods of seasonal adjustment' by Fase, Koning & Volgenant from Nedelands Bank.

used. (In the case of notes and coin where the data arise in daily and weekly form, the software is not available for the model based approach. Seasonal adjustment of this data is done by linear regression using harmonics to describe the seasonal pattern. See the Quarterly Bulletin for September 1978.) In choosing whether to adjust deposits data as levels - requiring a multiplicative model - or flows, where an additive model could be used, we have been influenced by the desire to keep the aggregate of these seasonals as close to seasonals estimated for, eq, aggregate time deposits. Given that for data since the mid-1970s the case for a multiplicative approach is not overwhelming, we have used an additive model on flows. The adoption of a multiplicative model on levels would only have created the presentational problem that the component seasonals would not have summed to those on the aggregates - had anyone calculated the latter. In this case we would have leaned more heavily on the earlier aggregation argument when constructing the seasonals for the total deposits series. (During the estimation phase we did in fact compare the relative performances of the aggregate and disaggregate approaches.)

Balancing

Although the stochastic seasonals are now estimated in a way which ensures that those on bank deposits and lending add up across the sectors, this is not true for all instruments and markets (represented as rows in the flow of funds matrix) nor for all financial flows within an individual sector (represented as columns in the flow of funds matrix). Most importantly, seasonals on changes in the banking sector's balance sheet do not do so.

The general reason for this is that seasonal adjustment is not in general a linear process across series. This non-linearity arises where the process attempts to remove outliers and to fit changing seasonal patterns. Where several series are aggregated the overall estimate of their aggregate seasonal pattern will not be the aggregate of the separate estimates.

In the context of the banking sector, it is the banks' take up of central government debt which is most prone to aggregation problems. It clearly reflects all payments to and from the central

government which pass through the banking sector and are not reflected pro tanto in changes in the non-bank private sector's holdings of such debt. Unlike bank deposits etc, there is no further sectoral breakdown which will assist in the separation of diverse patterns but the individual taxes and expenditures generating the various seasonal patterns can be tackled directly in the context of a disaggregated CGBR.

In order then to secure a set of seasonals reasonably consistent over deposits and lending in the banking sector, these are balanced in the context of the equation of money and its counterparts. The equation is roughly as follows:

Money =

bank lending +
 public sector borrowing -
 sales of public sector debt to the private sector +
 banks' external transaction (net) +
 public sector's external financing transactions.

The approach used is to construct seasonal adjustments for the terms in this equation and then to distribute the residual sum of these amongst the various terms. Of the terms other than money and bank lending, the CGBR is the most important generator of seasonal patterns. It is broken down into categories of expenditure and revenue in a way designed to isolate the strongest of these patterns. A separate account of this process is attached as Appendix 5.

The precise mechanism for distributing the residual is set out in the Appendix 2 on balancing.

Implementation in 1986

When seasonal adjustment of calendar month data was attempted in 1986, monthly data were only incompletely available for the banking series but well-founded quarterly data were available going back for many years. It was necessary, therefore, to adopt a special strategy for constructing the monthly seasonals on money. This, or a similar process, it was intended should be employed until reasonable runs of monthly data had become available.

In broad terms, where reliable monthly data were available these were used to achieve the decomposition described in the main paper for individual series. From this, quarterly seasonal adjustments were constructed by simple aggregation of the relevant months. This was done for the CGBR, National Savings and LABR over the last few years. Otherwise, the long runs of quarterly data were used to achieve the decomposition at the quarterly frequency. In this way a set of quarterly seasonal adjustments which only partially satisfied the appropriate accounting identities was built up. The various series were then balanced - see below and Appendix 2 - to produce a set of adjustments satisfying the constraints.

Using data constructed from the subset of banks reporting at end-calendar months for the period since 1982, these series were then interpolated to a monthly frequency.

Interpolating to monthly frequency

In the case of the various banking and other series for which only a short run of incomplete monthly data is available, monthly seasonals were produced by interpolating quarterly balanced seasonals. This was done by minimising a least squares target function based on the difference between interpolated values and a monthly guide series. The latter was constructed directly from the monthly data by removing firstly obvious outliers from the monthly data, then deterministic patterns such as interest debiting /crediting and a trend where necessary. The guide series was then based on the separate monthly means of the resulting series.

Final assembly

The balancing process produces a set of seasonals corresponding to component number 4 of the division. To these are finally added the separately estimated seasonals corresponding to number 2. A discussion of these seasonals is in the Appendix 3. It should be pointed out that these seasonals are constructed to satisfy the constraints of the flow of funds matrix.

APPENDIX 2

Balancing

- 1) Money, its components and counterparts are drawn from the flow of funds matrix (Fin Stats Table 1.1 and BEOB Table 19) and should be seen in that context. Each row of the matrix corresponds to a financial instrument, eg Bank deposits or Treasury Bills, and each column to transactions by a single sector in the whole range of financial assets and liabilities. Accordingly, the data satisfy two classes of constraint corresponding to market clearing and bilateral transactions, and to the requirement that changes in balance sheets sum to zero. In other words the cells in each row sum to zero as do those in each column.
- 2) In producing balanced seasonal adjustments the Bank is making sure that these accounting constraints also hold for the seasonally adjusted data. Conventional seasonal adjustment procedures tackle each series in isolation and are therefore unable to do this. The current procedure relies heavily on the identification of structural features in the data and bears a strong resemblance to the construction of large scale economic models. There is no body of statistical literature that deals with this problem so that technical justification rests on analogy with conventional multivariate analysis. The fact that users of the data want series 'to add up' both before and after seasonal adjustment is no justification in itself.
- 3) The need for balancing arises because, even if a number of time series such as bank deposits of various sectors are adjusted with the same program using the same parameter settings, the desire to take account of outliers in the data and to capture changing seasonality will result in a failure of the seasonals to add up across the sectors. This effect is likely to be compounded where one or other of the series satisfying a constraint exhibits behaviour which suggests a

different approach to seasonal adjustment be adopted (eg a combination of series demanding additive and multiplicative seasonal adjustment). Naturally, these remarks also apply to series corresponding to changes in a given sector's financial assets and liabilities.

- 4) Until 1983, the Bank's approach to this problem was to adjust each series of the flow of funds matrix and then to spread the resulting row and column residual sums in a single weighted minimisation procedure. Although this procedure was intuitively attractive, in that each cell received a weight reflecting its seasonality and variability, its application had unfortunate consequences for £M3, inter alia. It was therefore decided to 'steer the balancing' with a view to producing the smoothest result possible for the components and counterparts to £M3. This was the method described in the BEOB June 1983. Such steering relied on adjusting the relative weights used in the procedure and was a most indirect way of targetting balancing. The global nature of this approach meant that residual row or column series were spread in ways that bore no direct relationship to their initial generation.
- 5) A new approach has been adopted in preparing the quarterly seasonal adjustments for £M3 and its counterparts in the run up to constructing calendar month adjustments. Although the overall criterion remains maximum smoothness for £M3 etc., the balancing has been done in a way designed to capture the structure of the data. It is now built into the seasonal adjustment procedure at various stages so that any distinction between "balanced" and "unbalanced" seasonals is entirely lost by the time calendar month adjustments are reached.
- 6) In applying this procedure, the first step for each row of the flow of funds matrix, any cell of which appears amongst the components and counterparts to £M3, was to adjust each sector separately as seemed appropriate; ie banking data was handled in disaggregated form. In the cases of bank deposits and lending, sectoral flows represent bilateral transactions between the banking and other sectors respectively. The

relevant accounting constraints thus make the banking sector into an aggregate of the others; the seasonal element in aggregate banking data is built up from seasonal patterns in other sectors' financing. The next step, therefore, was to apply the non-banking sector seasonal components to the banking sector data and test for residual seasonality etc. The justification for such an approach is that it reflects the structural features of the data and therefore leads to a more efficient estimation of seasonals. More concretely, the point is that series such as total bank lending will have lumped together rather disparate sectoral seasonal patterns best estimated separately.

- 7) Where marketable debt is involved, as in the financing of the LABR, this procedure is less obviously applicable. The residual sector, banks in the previous paragraph, is not thus selectable a priori. Various choices were examined in each case; for local authority debt the other financial institutions sector emerged as the residual.
- 8) When this stage has been reached, the partially balanced seasonals applied to public sector transactions other than bank lending to the central government will produce a first estimate of a seasonal for this series. On the other hand, the seasonals applied to banking sector transactions other than bank lending to the central government will do the same. The difference between these two requires to be spread amongst the components and counterparts to £M3.
- 9) The calendar monthly/quarterly CGBR has been seasonally adjusted with careful reference to the administratively determined seasonal patterns of many tax and some expenditure headings. Its seasonal components have thus captured much more precisely year-to-year changes in the size of these and are much more easily forecast where changes are made. The components of money, on the other hand, are aggregates of the transaction of many individuals and seasonally adjusted in the first place as stochastic time series. The resulting seasonal components will thus tend to react slowly or not at

all to changes in the CGBR's seasonal pattern. This will introduce an element of bias when the CGBR adopts a new pattern.

- 10) There is thus a clear sense in which this final residual between public sector and banking sector transactions (referred to in paragraph 8 above) corresponds to regressors omitted in the first round determination of the seasonals on money, etc.
- 11) The last step is thus to compute what proportions of this residual applied to components and counterparts of money will produce the smoothest seasonally adjusted series. This is done by regressing changes in the (partially) seasonally adjusted series against changes in the residual; exactly equivalent to minimising the root mean square of first differences of the seasonally adjusted series. Although in principle these proportions should be determined simultaneously with a cross-equation constraint, this was not done. Rather, the separate estimates were rounded and a sensitivity analysis undertaken to find the tolerances for the adjustments necessary to make the proportions add to 1.

APPENDIX 3

DETERMINISTIC SEASONAL TERMS

- 1) These are extra elements of seasonality better determined by multivariate regression than time series modelling or moving average procedures. As noted in the main text, this does not prevent the regressions themselves following some stochastic process.
- 2) Where a series is the aggregate of two or more disparate processes it is clearly more efficient to take account of this than to expect a conventional seasonal adjustment program to disentangle them. This is especially the case where there are firmly held a priori grounds for supposing that one of the components is the result of some separate well determined process external to the series.
- 3) A striking example of this is the crediting of interest to deposit accounts. The timing of this process is well determined and the extent is given to us by the banks. It arises from the administrative procedures of the banks rather than from the economic behaviour of depositors. In this case any attempt to ignore this extra information by simply applying a conventional procedure to the series in toto is likely to lead to some spreading of the timing (and especially any abrupt changes in timing) and mis-estimation of the rate of interest credits as a result of their interaction with other seasonal elements of the series. There is an analogy here with omitted variable bias in multivariate analysis.
- 4) PRT is another example where a crude approach would result in biased estimates. The timing is clear but subject to official variation; the rate is a function of the price of oil and varies in a way not typical of more broadly based taxes (eg MCT); and the tax's financing pattern reflects the

international and cash rich nature of the oil companies. Given all this, it was decided to seasonally adjust PRT receipts year by year as a component of the CGBR seasonals and to offset these seasonals within the flow of funds matrix according to information gleaned from the oil companies about how they financed PRT payments. It might be argued that best practice demands a simultaneous estimate of the seasonal effects of PRT right across the relevant sub-matrix of sectors and financial instruments. This could, however, be true of other aspects of seasonality whose effects extended beyond such a sub-matrix (which could of course include bank deposits). The corollary is a single simultaneous pass over the whole flow of funds matrix. As in the context of economic model building, this is simply not feasible.

Bank of England



FROM: A C S ALLAN
 DATE: 3 November 1988

1 done
2 pr

MR GRICE

cc PS/Economic Secretary
 Sir P Middleton
 Sir T Burns
 Sir G Littler
 Mr Scholar
 Mr Odling-Smee
 Mr Peretz
 Mr Sedgwick
 Mr Gieve
 Mr Mowl
 Mr O'Donnell
 Miss O'Mara
 Mr Bush
 Mr Brooks
 Mrs Ryding
 Ms Wright

PRESENTATION OF MONETARY STATISTICS FOLLOWING THE HIBBERT
 COMMITTEE REPORT

The Chancellor was grateful for your minute of 1 November. With some misgivings, he agrees with the compromise favoured by Sir P Middleton - ie Version BB. He is content for you to aim for the Bank to issue a Press Notice on 29 November, with the full money numbers for October.

ACSA
 A C S ALLAN

SECRET AND PERSONAL

FROM: J W GRICE
DATE: 4 November 1988

- 1. SIR PETER MIDDLETON
- 2. CHANCELLOR OF THE EXCHEQUER

- cc
- Chief Secretary
 - Financial Secretary
 - Economic Secretary
 - Sir T Burns
 - Sir G Littler
 - Mr Lankester
 - Mr Monck
 - Mr Scholar
 - Mr H P Evans
 - Mrs Lomax
 - Mr Odling-Smee
 - Mr Peretz o/r
 - Mr Sedgwick
 - Mr Gieve
 - Mr Hibberd
 - Miss O'Mara
 - Mr Riley
 - Mr Brooks
 - Mrs Ryding
 - Ms Chaplin
 - Mr Tyrie
 - Mr Call
 - Mr Cassell - Washington
- File: MAMC F1

NOTES
M
(M.A. 100-6pk)

MONTHLY MONETARY ASSESSMENT: NOVEMBER 1988

This note records the discussion at Sir Peter Middleton's monthly meeting on monetary conditions on 2 November. Attached is the usual Monthly Assessment.

Sir Peter Middleton's Meeting

2. Invited to open the discussion, Mr Scholar noted that in earlier discussion, we had identified the housing market and M0 as key leading indicators of a slowdown in demand:

a) the housing market was clearly slowing. September mortgage commitments were down again after August's steep fall. They seemed likely to decline again in October after the second mortgage rate rise. There would be increasing

anticipation of further effects in the New Year when monthly repayment annual review schemes bite. One point which came to light after the Assessment was completed was that annual reviews would bite particularly hard on endowment mortgages. They would be surcharged to accord with MIRAS rules by between $\frac{3}{4}$ and over $1\frac{1}{4}$ per cent to make up for interest underpaid in 1988;

b) house price increases were decelerating. The Halifax index for October grew by only $1\frac{1}{2}$ per cent, after six months of steady increases averaging $3\frac{1}{2}$ per cent a month, though seasonal factors may be partly involved. Turnover is low, especially in the South-east. Halifax claim mortgage demand is at its lowest level since October 1983;

c) M0 may be starting to respond to the raised interest rates, though it was still early to tell, especially given the postal strike distortion. But correcting for that, the level of notes and coin had scarcely changed between end August and end October and the 12 month growth rate had stabilised at $7\frac{1}{2}$ per cent. With further interest rate effects to come, it was reasonable to expect M0 to begin to return to its target range.

3. The survey evidence of weakening consumer confidence reported in the Assessment also suggested the economy may be coming off the boil. But otherwise the available indicators suggested strong growth and accelerating inflation. Broad money and bank lending had resumed the rapid growth of the summer.

4. As to the policy response, we had succeeded for more than two months now in keeping interest and exchange rates steady. We would be doing well to maintain this for another two months. But the evidence of the last month added weight to the conclusion that we should try to do so.

5. Changing the usual order of the meeting, Sir Peter Middleton suggested Sir Terence Burns might like to put Mr Scholar's remarks in the context of the Autumn Forecast. Sir Terence argued:

SECRET AND PERSONAL

(i) fundamental assessment of the state of the economy was still very difficult. The slowdown in tax receipts in the last few weeks may be suggestive of less buoyancy. But other indicators looked strong. Manufacturing production, on revised figures, had grown by 16 per cent in two years. Investment was vigorous;

(ii) after revisions had taken place, GDP growth in 1988 could be as much as 5 per cent. It would be remarkable given the strength of activity if stockbuilding were not much higher than the current figures show;

(iii) in the longer term, there must be a probability of a deceleration in demand. But it remained to be seen whether it would be sufficiently marked for the economy to return smoothly to a sustainable path. The labour market looked worryingly tight but settlements had not so far accelerated alarmingly;

(iv) on this occasion, we were relying more than in the past on high interest rates to break the burst of demand. But there were also grounds for thinking interest rates would be more effective now because of the greater personal debt outstanding, especially mortgages;

(v) overall, the economy was in the balance and it may be not until January or February that it looks any clearer. To this extent, the Autumn Forecast did not add a great deal to the Assessment.

6. Mr George agreed that we were still in a situation of wait-and-see. But the recent indicators - retail sales and the trade figures had been surprisingly encouraging, even suspiciously so. The direction of the next change in the economy's growth rate seemed clear but not the magnitude of the deceleration. So he agreed forecasts for the moment told us little.

7. Sir Peter Middleton suggested that, notwithstanding the difficult forecasting environment, it would be helpful to discuss the issues it raised about how quickly inflation should or could be expected to fall. The following points were made in the discussion:

a) the forecast profile for M0 embodied a fairly sharp deceleration in M0's monthly growth rate, as the interest rate effects built up from August. There were signs that the deceleration was starting to occur but the trend needed to be confirmed. If the slower growth did not occur, that would be a strong warning sign;

b) the economy had followed a classic business cycle pattern. Buoyant consumer spending had induced a sharper rise in capital spending. Investment was making a substantial contribution to growth in 1988;

c) it was easy to accept that investment would subside to a more normal level if consumer spending eased. It was more questionable how far consumption would moderate. The housing market was critical. Even if house prices stopped rising, households had enormous housing wealth and, with freer access to credit, much of this could be liquified. On the other hand, the undoubted fall-off in turnover would reduce opportunities for equity withdrawal and spending on consumer durables. Stickier house prices would also restrain confidence;

d) it was probably neither possible nor sensible to aim for a sharp reduction in inflation in present circumstances. Whilst output growth needed to be reduced to maintain downward pressure on inflation, demand needed to fall further still to correct the current account deficit. So far, the current account had acted as a valuable safety valve for inflationary pressure. But it would act against us, for a time, as the current account improves - figuratively as the steam were sucked back through the safety valve;

e) the world situation looked favourable on the inflation front. But, for the present, the exchange rate may not represent a very good forward indicator. Exchange markets were looking at the same indicators as the authorities themselves.

Conclusion

8. Summing up, Sir Peter Middleton said the meeting had concluded that we should not be seeking a further tightening of policy on present evidence. That was its recommendation. But we could not rule out that we would need to do more, as events unfolded. Accordingly, the meeting felt that any pressure for lower interest rates should be resisted and that we should be prepared to move quickly on any signs of weakening in the policy stance.

JWG

J W GRICE

cc: Governor)
 Deputy Governor)
 Mr George)
 Mr Flemming) Bank of England
 Mr Coleby)
 Mr Plenderleith)

Professor Griffiths - No 10

MONTHLY MONETARY ASSESSMENT: OCTOBER 1988**Summary Assessment**

A bit more evidence that demand is starting to slow down: lower retail sales; weaker consumer confidence; more stories of the housing market freezing up. But it is still a case of waiting and seeing. Producers look confident and output remains strong.

Main Points

Money GDP growth is now expected to be around 11 per cent in 1988-89 (June forecast 10 per cent). RPI inflation excluding mortgage interest payments is now expected to reach 5½ per cent in the first quarter of next year. The rise in the GDP deflator could be 6¼ per cent in 1988-89, only falling slightly next year. (paras 17, 26).

MO's 12 month rate of growth was about 7½ per cent in October, the same as in August and in September, after correcting for known postal strike effects. While MO growth should slow down, it will still be outside its target range in March 1989. (Paras 32-34, Table 26).

Sterling's effective exchange rate has risen by around 1 per cent since the last Assessment (5 October). The oil adjusted ERI has changed by less than this as oil prices have risen. Day to day fluctuations in oil prices have been relatively large. (Para 31).

M4 growth rose to 18½ per cent in August (July: 17½ per cent). The increase in bank lending to companies was erratically low in August and recovered strongly in September. The growth of building society lending fell back as expected. (Paras 35, 40-44).

Consumer confidence has fallen, though remained fairly robust. Business optimism, as measured by the CBI Survey remains strong. (Paras 11, 13)

House prices increased by 34.4 per cent in the year to October according to the Halifax index (September: 34 per cent). Anecdotal evidence continues to suggest the sharp slowdown in house price inflation in London and the South East is spreading to other areas. Turnover has dropped dramatically since August. (Paras 22-25, Table 10).

ANNEX The EC/GALLUP Consumer Confidence Indicator.

MG2 Division

4 November 1988

Monetary developments since last month's report

Latest outturns available at time of:

	April Report	September Report	October Report
Monetary aggregates (12 month % growth)	(Mar)	(August)	(September)
M0 (sa)	5.8	7.6	8.4*
M3	20.9	20.0	22.6
M4	16.8	17.3	18.6
M5	16.7	16.5	17.9
Bank lending	25.2	27.9	27.9
Bank & building society lending	20.8	24.1	24.2
Interest rates (%)	28 March	5 October	3 November
3 month interbank	8.4	12.0	12.1
20 year gilt-edged (par yield)	9.3	9.4	9.2
Yield gap	- 0.9	2.6	2.2
UK real 3 month interbank	4.3	5.8	5.4
Equity dividend yield (all share)	4.2	4.4	4.4
IG yield (2001) assuming 5% inflation	3.8	3.9	3.5
3 month UK interest differential with			
Germany	5.0	6.9	7.3
US	1.2	3.5	3.5
World basket	2.1	4.6	4.8(est)
Exchange rate			
\$/£	1.85	1.70	1.78
Yen/£	231	225	221
DM/£	3.13	3.16	3.16
ERI	77.9	75.8	76.6
Oil adjusted ERI**	109.3	111.6	111.3
Asset prices			
FT-A Index (% pa)	-11.1	-21.8	+16.4
FT-A Level (July 1987 peak: 1239)	925	947	960
Halifax house index (% pa)***	20.3	30.7	34.0

* October : 7.6 (not yet published)

** The oil adjusted ERI shows whether the joint effect of oil price and exchange rate changes has been counter-inflationary or otherwise, relative to the base period Jan 1983-Nov 1985, on the assumption that the inflationary effect of a 4 per cent rise in oil prices is exactly offset by a 1 per cent rise in the exchange rate.

*** 12 month growth rates shown are for March, August and September. October 34.4 per cent (see table 10).

A. External Developments

1. Latest figures confirm that growth in the major countries has moderated somewhat from the rapid rate of the second half of 1987 and the first quarter of 1988.
2. The G7 12-month rate of inflation has edged up very slightly, to 3.2 per cent in August. But inflationary pressures arising from commodity prices have eased. On 25 October, the economist all-items commodity price index, which excludes oil, was 10 per cent lower (in SDRs) than its June peak, though still 24 per cent higher than a year before. Oil prices have fluctuated between \$13 and \$15 per barrel in recent weeks: on average so far in October, they have been about a third lower than a year earlier.
3. Short term interest rates have been fairly stable over the past two and a half months (though French rates have recently risen). Any increase in US rates remains unlikely before the election. There are no strong grounds either for expecting European or Japanese rates to change much, except perhaps in France - where interest rates may have to rise further to defend the franc.
4. The dollar drifted lower in generally quiet trading as central bank intervention in late September was seen as indicating resistance to a higher dollar and bearish sentiment reasserted itself. The dollar eased from 29 September to open on 6 October at DM 1.86½ and Y 133½. It moved lower as weaker than expected employment figures for August and a lower oil price led to some easing of inflationary worries, and August US trade figures, which showed a worse than expected deficit of \$12.2 billion, led to renewed concern about the US trade deficit. The dollar steadied as Bank of Japan requests for prices led the markets to believe that a further fall in the dollar would be resisted, but fell further after the Q3 GNP figures. The Fed bought \$550 million against yen and the Bank of Japan \$800 million at around Y 125 in late October and early November. The dollar closed at DM1.7752 and Y 124.32 on 3 November (4¾ per cent and 6½ per cent down since

6 October). The markets' stance is predicated on a Bush victory in the Presidential election.

B. Activity and Inflation

5. Recent indicators of activity and inflation are summarised in table 6. Evidence which has become available since the last Assessment shows output continuing to grow rapidly and underlying inflation edging upwards. Anecdotal evidence from the housing market, and further data on consumer confidence and retail demand, are consistent with some easing in the pace of demand growth but it is too soon to be sure that this represents a change of trend.

6. The autumn internal forecast shows growth GDP of 4 per cent in 1988 with domestic demand growing by 6 per cent. Both are expected to decelerate sharply in 1989. RPI inflation is expected to rise to 6½ per cent by the fourth quarter of 1988 and peak at 7½ per cent in mid 1989 before falling back to 6 per cent by the end of the year.

Money GDP: Latest estimate from CSO

7. The CSO estimates that the average measure of GDP at constant factor cost is likely to have been about 3 per cent higher in the third quarter of 1988 than a year earlier. This compares with an increase of 4 per cent in the year to the second quarter of 1988, with the decline in the annual growth rate in the third quarter reflecting the quarterly pattern of GDP(A) last year as much as this year. The output based measure GDP(0), which is usually the most reliable indicator of short term change, showed a growth of 1 per cent between the first and second quarters of 1988 and is likely to show a further 1 per cent between the second and third quarters.

8. In the light of this data the CSO estimate the current underlying rates of growth of real GDP to be the range 3 to 5 per cent. The implied market price deflator of GDP is likely to be about 6½ per cent higher in the third quarter of 1988 compared with a year earlier with around two thirds of this increase

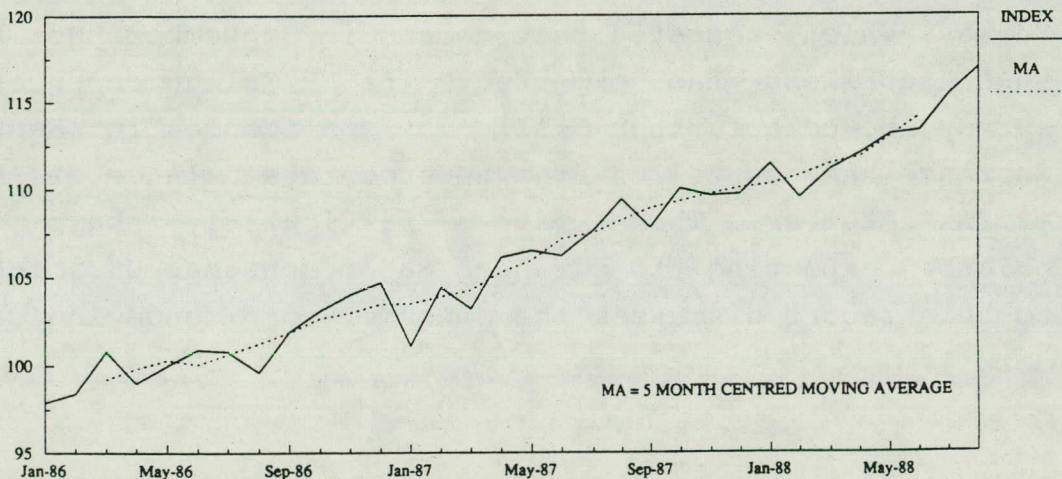
occurring between the first and third quarters of this year. The underlying rate of growth of the market price deflator is probably in the range 6 to 8 per cent. This indicates an underlying rate of growth in money GDP in the range 10 to 12 per cent.

Activity and demand

9. The average measure of GDP rose by $4\frac{1}{4}$ per cent between the first halves of 1987 and 1988, and growth in 1988 as a whole is now forecast at just over 4 per cent. The growth of the expenditure measure is probably being understated in the official statistics. If, as we expect, expenditure is eventually revised up, growth in the average measure could be even faster.

10. The output measure of GDP has been rising particularly rapidly in recent quarters, with growth of 6 per cent between the first halves of 1987 and 1988. Manufacturing output rose further in July and August, and in the three months to August was 7 per cent higher than a year earlier. Construction output paused in the second quarter but figures for housing starts and completions in the third quarter suggest renewed growth. Private sector starts in July and August were 11 per cent higher (at a monthly rate) than in the second quarter and 28 per cent higher than in the third quarter of 1987. In the same period private sector completions were 28 per cent higher than in the second quarter.

Chart: Index of manufacturing output



11. The October CBI quarterly trends enquiry, conducted between 23 September and 12 October, shows further rises in business confidence and in export optimism, but there is a hint that manufacturing output growth may be moderating. The balance of firms expecting higher output over the next four months fell from 31 per cent in September to 24 per cent in October. Investment intentions remain strong. But the CBI believe there are signs that capacity constraints are becoming a more significant problem: the proportion of firms working below capacity, although unchanged, remained at an all time low, and the proportion expecting to be constrained by plant capacity shortages rose towards its 1973 peak.

12. Despite probable under - recording of expenditure, domestic demand is expected to grow by 6 per cent in 1988, the same as the recorded growth between the first halves of 1987 and 1988. Consumer' expenditure, which grew only slightly in the second quarter (according to current estimates), rose by over 2 per cent in the third quarter, reflecting growth of retail sales and new car registrations. New car registrations in August - the peak month - were 17 per cent higher than a year earlier.

13. There are a few more signs that higher interest rates may be starting to slow down the growth of demand but it is too soon to be confident that they do not simply reflect erratic monthly fluctuations. Retail sales fell back by 1 per cent in September from the high level of the previous two months (when sales may have been boosted by the effect of tax rebates). This was supported by evidence from the September CBI/FT Distributive Trade Survey, which suggested that demand in September had been weaker than retailers had expected. The EC/Gallup consumer confidence survey showed a further fall in confidence in September - the increase has now fallen from a percentage balance of +9 in June to -2 in September. There was a particularly sharp dip in the balance expecting to purchase major consumer durables. An annex to this report discusses the consumer confidence indicator in more detail.

14. The September trade figures showed a current account deficit of £560 million, the lowest monthly deficit since October 1987. Export volumes rose 13½ per cent while import volumes increased by less than one per cent. However, the improvement in the visible balance between August and September mainly reflects large movements in erratic items such as precious stones and aircraft. There may also be problems with the seasonal adjustment. In addition, the postal strike disrupted the flow of export documents. To allow time for the backlog of post to clear, Customs and Excise held open their account for some documents for up to two days after the normal closing date. Customs estimate that this action may have resulted in an upward distortion to exports of £150 million in September. Notwithstanding these caveats, the performance of exports in recent months is encouraging. Excluding oil and erratics, export volumes in 1988Q3 were up 5 per cent on the previous quarter and up 6 per cent on a year earlier. But there is no sign yet though of a slower import growth. Excluding oil and erratics, import volumes in 1988Q3 were up 7½ per cent on the previous quarter and up 15 per cent on a year earlier.

15. Seasonally adjusted adult unemployment fell by 6,000 in September, but there was some over-recording of unemployment as a result of the postal strike, which led to delay in removing some claimants from the count when they found work. The average monthly fall over the past six months is 40,000.

16. The workforce in employment rose by only 42,000 in the second quarter. This follows a large rise in the first quarter and may be no more than an erratic quarterly fluctuation. However, much of the slowdown in growth was concentrated in service sector employment in the South East. It is possible, therefore, that it reflects labour market tightness and the resulting difficulty in finding people to fill certain vacancies.

Inflation

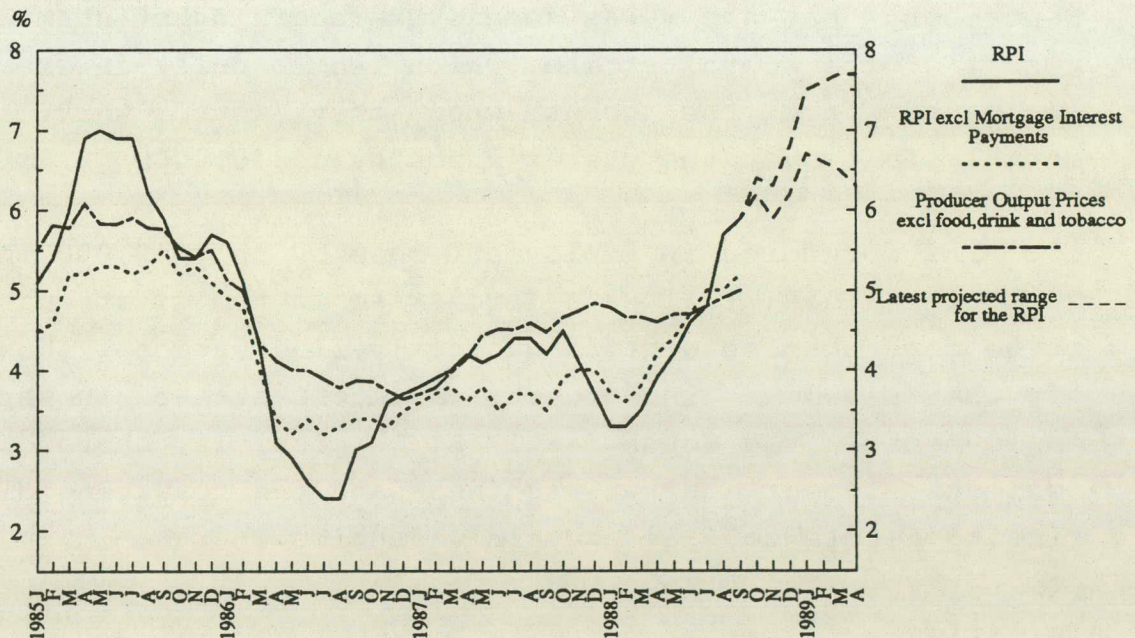
17. RPI inflation has risen in every month since February and reached 5.9 per cent in September. It now is at its highest level

since September 1985. The steep increase in inflation in August to 5.7 per cent was due to higher mortgage interest rates, but the rise in September is undistorted by this factor - excluding mortgage interest payments (MIPs), the RPI increased by 5.2 per cent in the year to September from 5.0 per cent in August. Total RPI inflation will increase again in October, following the rise in mortgage interest rates which will add around $\frac{1}{2}$ per cent to the RPI. RPI inflation may reach about 7 per cent by early 1989, but this reflects mainly the effect of higher mortgage rates. Excluding mortgage interest rates, RPI inflation should increase only slightly to about $5\frac{1}{2}$ per cent in the first quarter 1989.

18. Producer output price inflation (excluding food, drink and tobacco) rose to 5.0 per cent in September. Inflation on this measure has been in the range $4\frac{1}{2}$ to 5 per cent for over a year. Producer input price inflation (also excluding FDT) was unchanged at 3.8 per cent in September.

19. The GDP deflator is expected to rise by $6\frac{1}{2}$ per cent in 1988-89, slowing to 6 per cent in 1989-90.

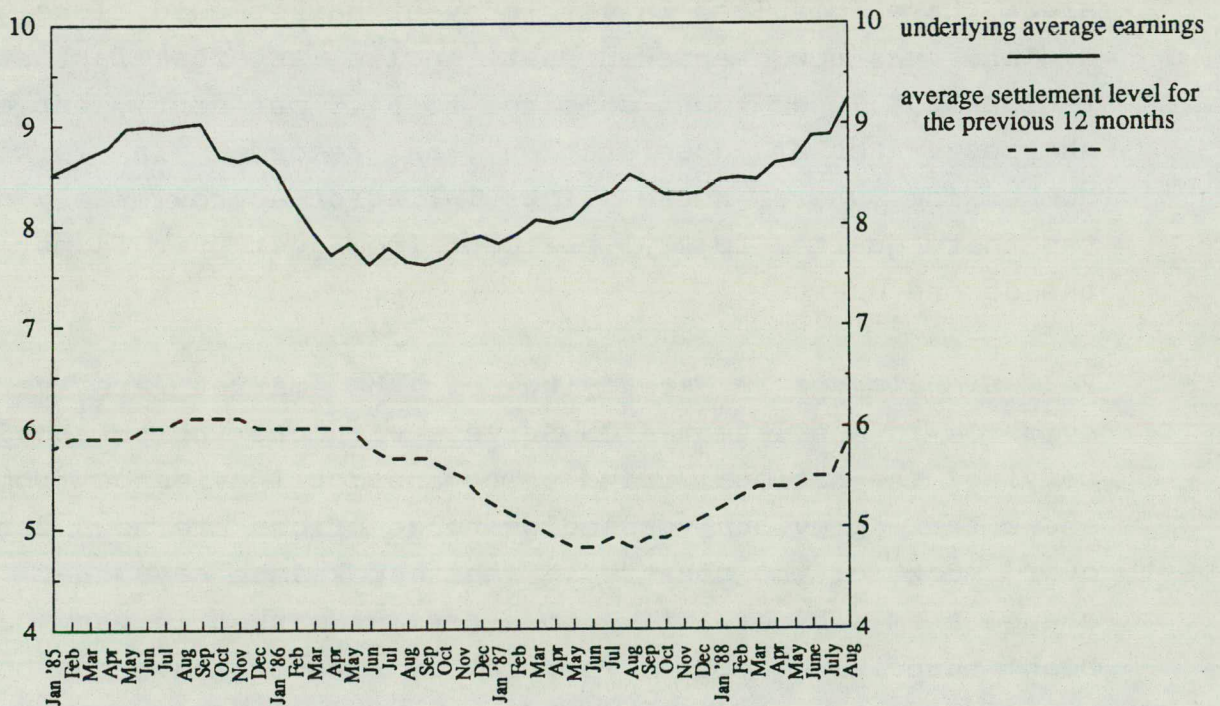
Chart: Retail and producer price inflation



20. In the private sector wage settlements rose in the pay round that has just ended. It now looks as if the average level of

private sector settlements was 5½ per cent, up from 5¼ per cent in 1986/87. The rise in the manufacturing sector was slightly greater - up ¾ per cent to 5½ per cent. The underlying growth of average earnings rose by another ¼ per cent to 9¼ per cent in August (the highest increase since July 1982). Underlying earnings growth in manufacturing also rose to 9¼ per cent. The rise in the underlying rate is probably largely due to performance related factors, so that much of the recent increase in earnings is self financing. Earnings drift has remained at a high level, even though the contribution to earnings from overtime has tended to fall in recent months. This reflects a levelling out of overtime hours, following very strong growth during 1987. Overtime may now be close to a peak. If so, the rate of earnings growth may well start to fall towards the end of the year. The static overtime picture, together with a continuing fall in employment, demonstrates that firms are responding to strong demand growth with further improvements in productivity.

Chart: Settlements and earnings in manufacturing



21. The continued strong growth in productivity is largely offsetting the effect on unit wage costs of increases in manufacturing earnings. In the three months ending in August

manufacturing productivity was 7.5 per cent higher than a year earlier.

22. House prices as measured by the Halifax index rose nationally by 34 per cent over the year to September, compared with 30.7 per cent in the year to August (table 10). The monthly increases, except for July, have remained fairly level at about 3 to 3½ per cent since the end of the first quarter of the year. The DoE monthly indices, by contrast, show some evidence of a slow down in the most recent two or three months (chart 4).

23. Once again, there are sharp regional differences with regions that led with the highest price increases now slowing down. Much of the steam has gone out of the market in London and the rest of the South East, whereas, by contrast, the 'ripple effect' which operated in the second quarter has strengthened in the third quarter. To a limited extent in the Midlands, but certainly further north, the continued revival of the local economies, relatively cheap house prices and the ripple from higher priced areas have resulted in very buoyant market conditions. The West Midlands has now overtaken East Anglia as the fastest growing region (54.7 per cent compared to 54.5 per cent), but one of the sharpest rates of acceleration was recorded in Yorkshire and Humberside where house prices inflation approximately doubled in the third quarter to 28.1 per cent from just over 14 per cent in the second quarter.

24. Signals of a steadying of the market are very much in evidence in the latest RICS Surveys with the north showing up as defying the national trend. The anecdotal evidence from the RICS shows that "previously speeding house prices are now decelerating over much of the country". Their spokesman says that "the rapid change from a hyper-active to a dormant market in many areas has been surprising..... The brakes, however, have now been firmly applied and the picture has dramatically altered in a very short period of time. It will only be a matter of time before the symptoms are felt by those in the North."

25. The anecdotal references to a dormant market in the RICS survey probably refer as much, if not more, to turnover as to prices. Actual data on turnover is limited, but what is available suggests a sharp fall in the past couple of months. The Halifax say that "the number of buyers has fallen compared with earlier in the summer, and is now 20 per cent down on September 1987". With turnover down, prices on a nation-wide basis look likely to slow in the near future, although some regions may continue to buck this trend for a while. But the rather low month-on-month price increases recorded over the October-December period last year (table 10) mean that the 12-month inflation rate for the Halifax index is likely to stay at, or above, its current level of 34 per cent for the remainder of this year.

Projections of money GDP

26. The autumn forecast showed an 11 per cent rise in money GDP in 1988-89, compared with 7½ per cent growth in the FSBR forecast. Real GDP growth is likely to be nearly 4 per cent, and the GDP deflator is forecast to rise by 6½ per cent, compared with the FSBR forecast of 4½ per cent. The GDP deflator is growing more rapidly than other measures of inflation. This is partly because it includes buoyant prices like the investment deflator and the implicit deflator on government services (largely earnings). Growth of money GDP is expected to slow to 8½ per cent in 1988-89, with growth in the GDP deflator falling to 6 per cent - both well above the growth rates in the MTFS.

C. Public Sector Finances and the Fiscal Stance

27. Table 8 gives the main indicators of the fiscal stance. The PSBR in September 1988 was £1.0 billion. Privatisation proceeds were £0.1 billion from the remaining payments from the second call on BP, bringing privatisation proceeds for the first six months of 1988-89 to £4.9 billion, compared to the Budget forecast of £5 billion for the year as a whole. In the first six months of 1988-89, the PSDR was £3.7 billion, £4.9 billion higher than forecast in the Budget profile. The CGBR(0) is £3.9 billion below profile - due to both higher than expected receipts and lower than

expected expenditure. Income tax and VAT account for most of the extra receipts. The undershoot on expenditure is partly accounted for by lower social security spending and lower payments to the EC. The LABR is £1.0 billion below profile which may reflect higher capital receipts than expected at Budget time due to council house sales. The PCBR is close to profile. Excluding privatisation proceeds the PSBR in the first six months of the financial year is £1.2 billion, £4.7 billion lower than in the same period of last year.

28.. The PSDR for 1988-89 as a whole is now expected to be £10½ billion or a little higher, lower than the internal Autumn forecast figure of £12 billion. The downward revision largely reflects lower than expected Inland Revenue receipts and National Insurance contributions in recent weeks. Although October is the second largest month for corporation tax, the source of the Inland Revenue shortfall appears to lie elsewhere - probably income tax. This could reflect some unanticipated slowdown in wages and salaries, but equally it could just be the result of an error in our earlier expectations of tax receipts for given wages and salaries. The PSDR excluding privatisation proceeds is expected to be £6 billion less than the PSDR.

29. Excluding privatisation proceeds the internal Autumn forecast shows that the PSDR as a percentage of GDP in 1988-89 is likely to be over 1 1/2 points higher than the Budget forecast, which indicates considerable fiscal tightening. Most but not all of this arises automatically from the upward revision to the forecast of money GDP growth.

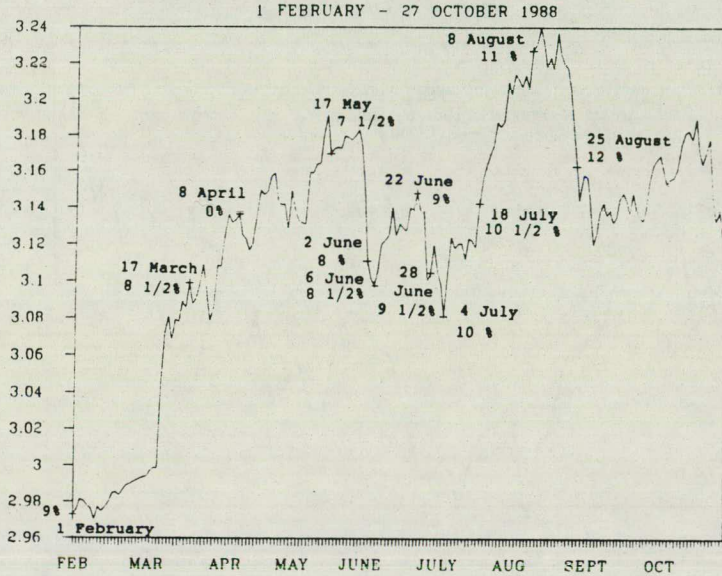
D. Exchange Rate

30. At the time of the last Assessment, sterling stood at ERI 75.8, \$1.70 and DM3.16. Since then it has appreciated against the dollar to \$1.77½ while remaining unchanged against the Deutschemark; its effective rate is 1.0 per cent higher at 76.6, reflecting the weakness of the dollar. Earlier in the month sterling had reached ERI 76.9 (14 October), but the pound fell sharply after the Mansion House Speech. It improved again

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following the publication of better than expected trade figures for September on 27 October. During the period the Bank has intervened in both directions, and bought over \$250 million overall.

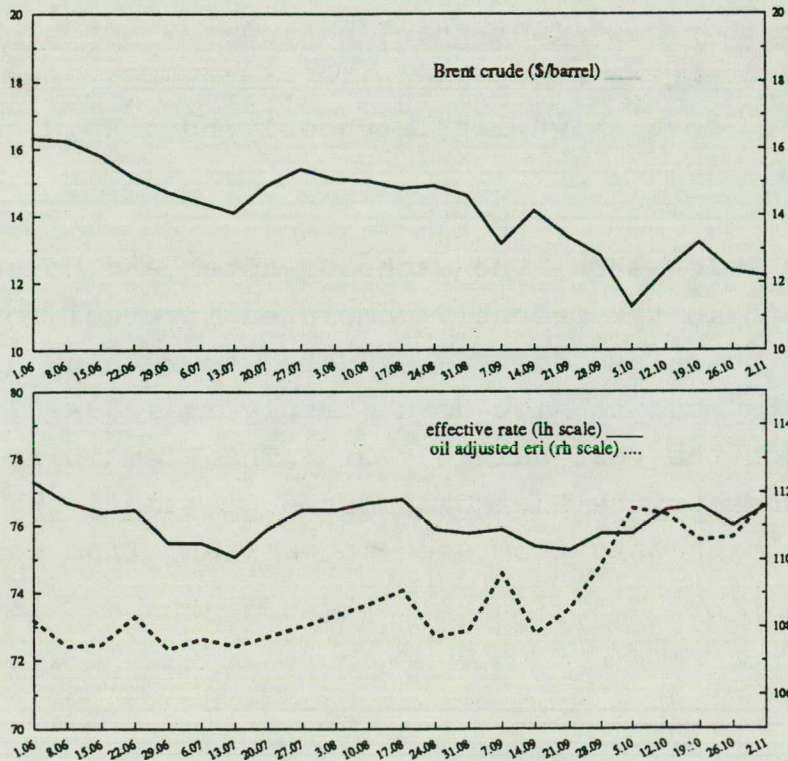
Chart: The £/DM exchange rate



The DM/ rate is at about the same level as in mid-April to mid-May, when base rates were 8%.

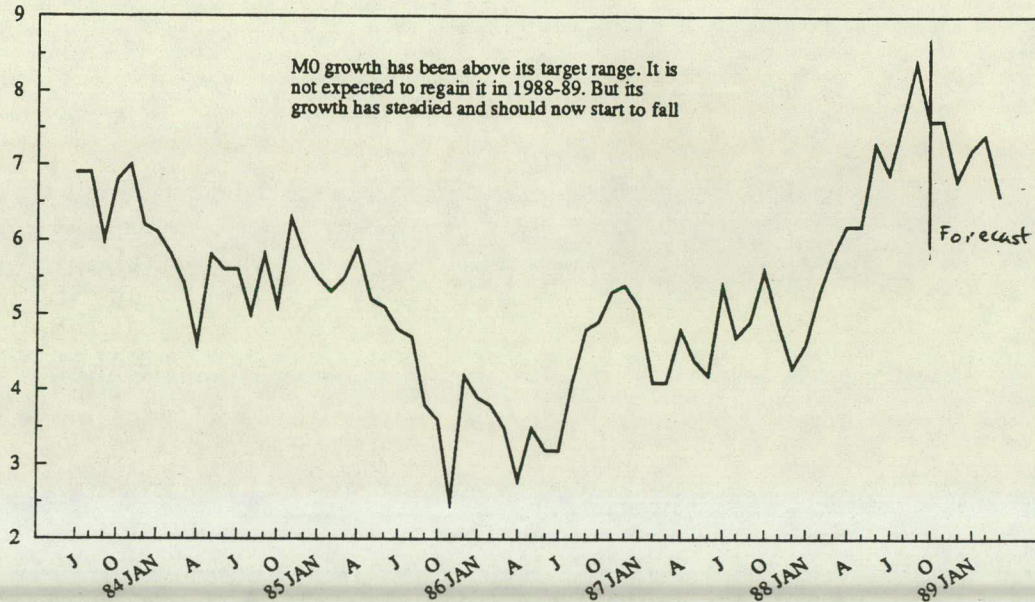
31. The sterling index has risen to 76.6 from 75.8 at the time of the last Assessment. Over the same period oil prices have risen by over 100 cents, leaving the oil adjusted ERI little changed at 111.3. A more broadly based view of external pressures on inflation is given by UK import prices which have risen by 0.3 per cent over the last month, and only by 1.2 per cent over the past year.

Chart: The oil adjusted exchange rate



E. Domestic Monetary and Financial Market DevelopmentNarrow Money

Chart: 12 month growth of MO

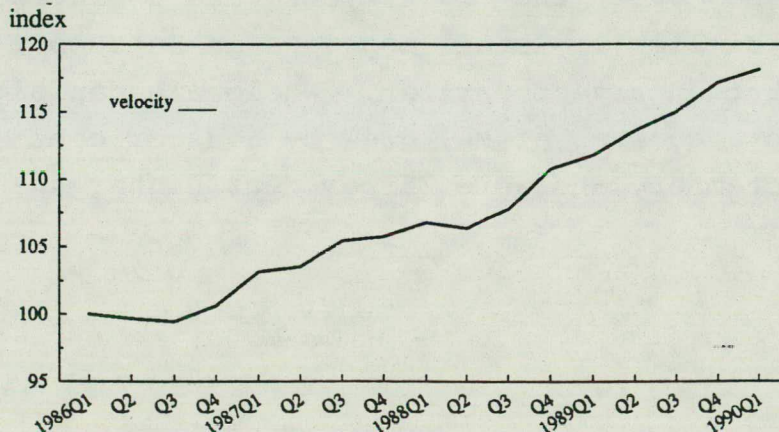
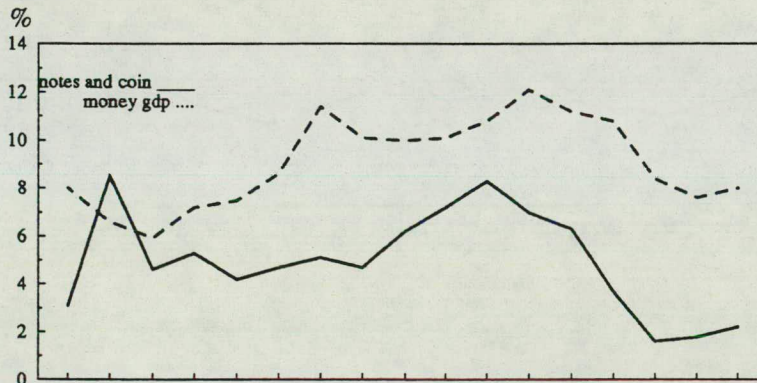


32. We estimate that the increase in MO in the 12 months to October was 7.6 per cent on a seasonally adjusted basis, the same in August and about the same as in September after correction for the known distortions to the Post Office's cash holdings during the postal strike. September's MO growth may have been upwardly distorted by a greater use of notes and coin by the general public. It is impossible to estimate the size of such an effect, but if it was at all significant, it would mean that underlying MO growth in September was lower than in August. Notes and coin have increased by 7.8 per cent (seasonally adjusted) over the last 12 months, but have shown little underlying change since the end of August (table 17).

33. The chart below shows the paths of notes and coin growth and money GDP growth in the recently completed internal forecast. The growth rate of notes and coin is expected to remain high in the rest of 1988-89, but to slow down sharply in 1989-90. (Notes and coin account for the vast bulk of MO. The remaining component, bankers' balances at the Bank of England, is small and constant on average, though its path from week to week and from month to month

is often very erratic.) Velocity (here defined as the ratio of money GDP to notes and coin) is shown in the lower panel. It is expected to increase by 1½ per cent per quarter over the forecast period starting in the third quarter of this year, having increased by only 1 per cent per quarter since the end of 1986. This is an important feature of the projections because if this acceleration does not occur, then - other things being equal - M0 will not return to its target course so quickly. This projected acceleration is particularly marked in the second half of 1988, as interest rate rises bite on notes and coin sooner than on money GDP, but even between 1989Q1 and 1990Q1 velocity growth is still projected to grow at 1.4 per cent per quarter with no further change in interest rates after August 1988. On the other hand, to some extent the forecast acceleration in velocity is more apparent than real given the probable under recording of money GDP in 1987 and 1988, which will have artificially depressed recorded velocity.

Chart : M0 growth and velocity
 upper panel: Notes and coin and money GDP
 lower panel: Notes and coin velocity

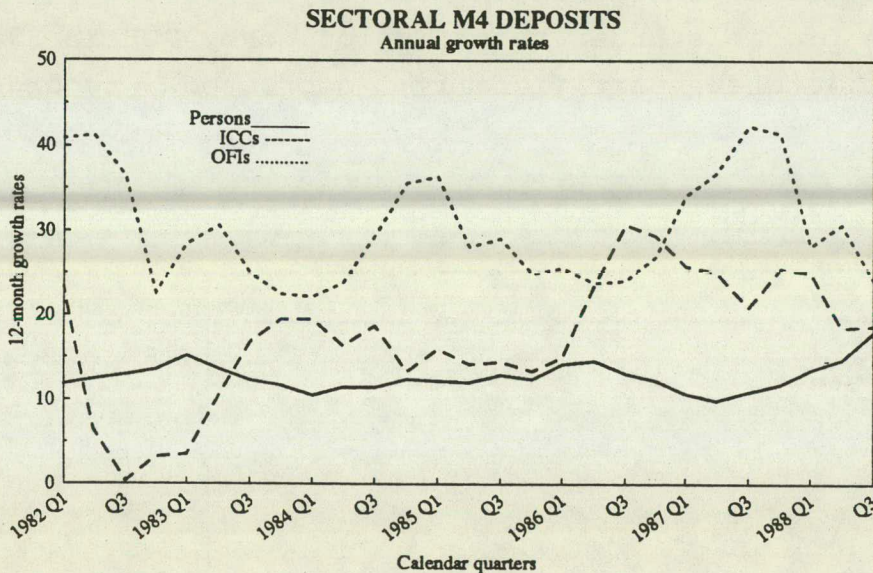


34. Our monthly forecast of M0, consistent with the quarterly forecast shown above, is set out in table 26 and the chart before paragraph 32. M0 will remain outside its target range this year.

Broad Money

35. As expected the 12 month increase in M4 rose in September - to 18.6 per cent - after the fall between July and August. M4 increased by 2.2 per cent (seasonally adjusted) in September, one of the highest one month changes over the last year (table 15).

Chart: Sectoral M4



Persons' liquidity has accelerated post-crash; OFIs' liquidity growth has fallen back to more normal levels after a Big-Bang related surge in 1986-87. ICCs' liquidity growth has slowed recently, reflecting the effects of the crash on corporate finance.

36. Total retail deposits in M4 increased by £4.2 billion (1½ per cent) on a seasonally adjusted basis, the largest one month increase over the last year - and a little greater than in June (£4.0 billion). Retail deposits in September were 16½ per cent higher than a year earlier. Wholesale deposits, which account for around a quarter of M4, grew by 3.3 per cent (seasonally adjusted) in September, and were 25 per cent higher than a year earlier.

Banks' and Building Societies Retail Inflows

37. Most of the increase in retail deposits of £4.2 billion (seasonally adjusted) flowed to banks rather than building societies. Banks retail deposits increased by £3.1 billion. To a large extent this reflected heavy flows into interest bearing deposits, but even non-interest bearing sight deposits rose £850 million, the largest increase since January. Building society retail deposits increased by £1.1 billion, only about half as much as in August and the lowest increase since January. The switch between building societies and banks may reflect interest rate changes, but this implies greater sensitivity of flows to relative interest rates than seems to have been the case in the past. Perhaps the more aggressive marketing of high interest accounts by banks has further narrowed the difference between banks and building societies in depositors' perceptions. Perhaps also the drying up of inflows into unit trusts since last year's stock market crash means that there is a growing pool of relatively interest sensitive money searching for the best return.

38. Building societies net retail inflows (before seasonal adjustment) were low in September, totalling only £0.6 billion (excluding interest credited) as compared with £1.1 billion in August and £1.2 billion in July. With the banks raising their rates in late August, following the 25 August base rate rise, building societies' deposit rates in September were looking uncompetitive again, as had been the case in July. A further round of interest rate increases by building societies on 1 October restored their competitive advantage versus banks on the top bands of instant access accounts, although for smaller sums - particularly in the £2000-£5000 range - the banks are still in general offering higher rates. Weekly figures show building societies' net retail inflows higher so far in October than in September, with a particularly large inflow in the first week.

Building Societies' Wholesale Funding

39. Wholesale funding was high in September at £0.8 billion - the second highest monthly figure so far this year. Eurobond funding,

at £0.6 billion, was at a new monthly high for the year. In the nine months to September, building societies Eurobond funding has amounted to £2.6 billion, out of a total of £4.3 billion of wholesale funding.

Mortgage Lending

40. Building societies' new mortgage lending fell back in September from the record August level, as had been expected following the earlier reduction in new mortgage commitments. At £2.0 billion, mortgage lending in September was back to the levels of April and May, but still well above the levels of the second half of 1987. The reduction in mortgage lending between August and September was - at around 25 per cent - very similar to the reduction in net new commitments between July and August. But, with a further fall in net commitments (of around 8 per cent) between August and September, and with an average $1\frac{1}{2}$ per cent rise in mortgage rates from 1 October likely to have some impact on mortgage demand, some further reduction in mortgage lending is likely in the coming months.

41. Although the CLSB analysis of lending is not seasonally adjusted, the rise in CLSB bank lending for house purchase in September of £1054 million was a good deal lower than in August (£1273 million), in line with the fall off in new building society lending.

Total Bank and Building Society Lending

42. Bank and building society lending increased by £7.7 billion (seasonally adjusted) in September, faster than in August (£5.9 billion) and faster than the average increase in the previous ten months, but below the high increases in June and July. With new building society lending lower than in August, the higher increase in total lending reflected higher new bank lending of £5.9 billion (seasonally adjusted) which was relatively subdued in August (£3.1 billion). Most of the increase bank lending was accounted for by the CLSB banks.

43. The CLSB sectoral analysis is not seasonally adjusted and so is difficult to interpret in interest charging months, of which September is one. Lending to the personal sector accounted for £1.7 billion out of a total increase in CLSB lending of £4.8 billion. New personal sector lending was similar to the increases in July and August despite the inclusion of interest. Apart from lending for house purchase (discussed above, para 41), CLSB banks lent £0.6 billion to the personal sector for other purposes. This is in line with such lending in previous recent interest charging months. Credit card credit rose by only £70 million. New lending to the personal sector other than for house purchase was lower than in last September.

44. CLSB lending to other sectors was around £3 billion, higher than in August. In contrast to August when several sectors were repaying bank debt, all sectors except manufacturing increased their borrowing, at least partly as a consequence of interest charging. Lending to manufacturers was flat, despite interest charging, thanks to repayments by the food, drink and tobacco industries.

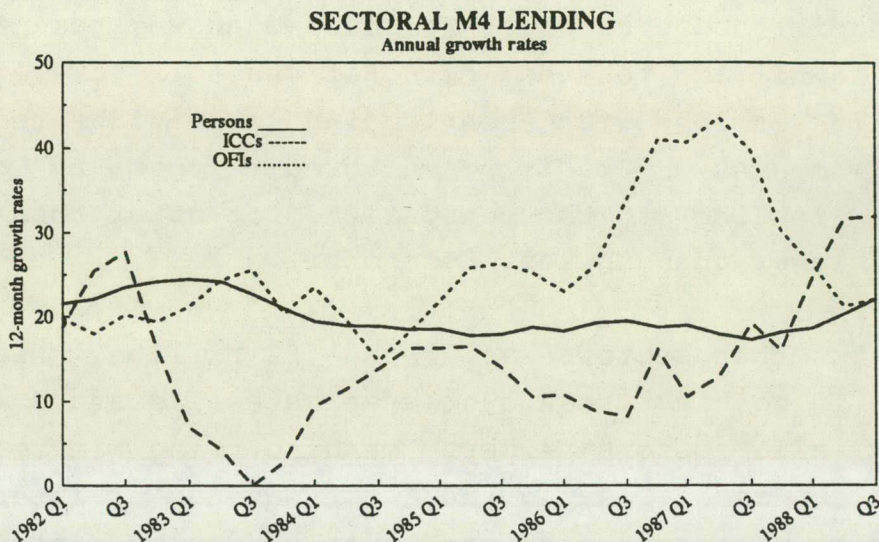
Sectoral lending in the third quarter

45. The quarterly analysis of lending by sector is now available for the third quarter. Personal sector borrowing increased by 6 per cent (5.9 per cent in the second quarter), with the four quarter growth rate increasing from 20.3 per cent to 22.1 per cent. Mortgage lending has risen by 21.1 per cent over the past year, inflated in the third quarter by Budget effects. Consumption borrowing rose by 6.2 per cent in Q3, partly reflecting expenditures associated with house purchase. Also within the personal sector, lending to unincorporated business slowed slightly, although the yearly rate increased from 24.0 per cent to 28.2 per cent.

46. The increase in industrial and commercial companies' sterling borrowing was the lowest for a year, but the annual growth rate continued to rise, reflecting last year's profile. Borrowing by property companies increased 58 per cent over the year to August;

over the same period there was £2.3 billion of lending to the food, drink and tobacco industries, much of which can be related to takeover activity.

Chart: Sectoral M4 counterpart



ICCs' borrowing has grown sharply post-crash; OFIs' borrowing (and deposits) have fallen back post Big Bang. Persons' borrowing, fairly stable in the 80s, has accelerated recently reflecting higher mortgage borrowing.

47. ~~Financial institutions' sterling borrowing~~ continued its downward trend with a subdued increase of 5.3 per cent. Much of this increase was leading to finance subsidiaries, notably mortgage companies, whilst securities dealers' borrowing appears to be falling off.

48. Most of the sharp rise of £3.2 billion in foreign currency borrowing was accounted for by ICCS, with OFI borrowing also rising by £0.6 billion after a series of large falls.

49. Personal sector M4 deposits rose sharply (5.0 per cent), taking the four quarter growth rate from 14.7 per cent to a record 18.0 per cent. ICC's sterling deposits also rose rapidly, showing a 10 per cent increase over the quarter (similar to Q3 1987). In contrast, financial institutions' deposits rose slowly, reversing the trend of consistently large rises over the previous year.

Funding

50. The PSBR was underfunded by £1.0 billion in September, taking the cumulative overfund for 1988-89 to date to just £0.4 billion. The PSBR (net of other public debt sales) was £½ billion. Sales of gilts to the private sector were £430 million out of total CG debt sales of £477 million. But these sales were offset by a fall in the external finance of the public sector mainly reflecting a decline in foreign holdings of gilts.

Broad Money Forecast

51. M4 is expected to rise by around £5½ billion in October (£6½ billion after seasonal adjustment), taking the 12 month increase to 18½ per cent, a little below the increase of 18½ per cent in the year to September. The forecast is consistent with the view that there will be some further slowdown in the increase in building society lending from £2 billion (seasonally adjusted) in September to around £1.8 billion. Total M4 lending could be around its average level of the last six months - lower than in September, but higher than in August. The twelve month increase in lending will nevertheless probably rise, reflecting the small increase in lending in October last year, and could turn out around 26 per cent.

Interest Rates and Capital Markets

52. Market turnover in October was much the same as in recent months, and markets were not much affected by the publication of economic statistics - the outturns being much as anticipated - apart from the retail sales and trade figures for September which were interpreted as good news. Money market interest rates, which closed at 11.7 per cent for one month and 12 months on 29 September, now stand at 12.0 per cent for both one month and 12 months.

53. The stock of money market assistance fell to £7.2 billion at the end of September, from £0.8 billion in August (table 30). It is projected to fall to about £5.3 billion in October, partly

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reflecting gilts maturities of £1.9 billion, before falling further to £4.4 billion in November.

54. Gilts ended September with the index at 87.97 and 5, 10, and 20 year par yields at 10.1, 9.9, and 9.4 per cent respectively. The index climbed steadily for most of October, but the pressures on sterling, and market reaction to the Mansion House Speech saw the index fall by almost half a point from its peak before recovering to its previous peak on the announcement of the trade figures. All sectors of the market have improved. The index currently stands at 88.89, with par yields at 10.0, 9.6, and 9.2 per cent, leaving the slope of the yield curve more downward sloping.

55. Real yields on index-linked stock began the month at 3.9 per cent for medium dated and 3.8 per cent for the longest dated stocks, but have fallen during the month to 3.6 and 3.5 respectively. Break-even inflation rates for index-linked Treasury 1990 and 2006 are currently 6.7 and 5.8 per cent, compared with 5.8 and 5.6 per cent at the beginning of the month. The equity dividend yield (based on the all-share index) remains unchanged at 4.4, from the end of last month.

56. Equity prices increased in September and since the last Assessment the FT-Actuaries All Share index has increased to 960 from 947. With last year's crash removed from the comparison, the index is now 16½ per cent higher than a year ago, albeit 22 per cent below its July 1987 peak.

57. Unit trusts had a good month in September by recent standards, with net investment of £385 million - easily the highest monthly figure since last year's stock market crash. However some of this reflects an increase in the level of investment of life companies' own funds. At an annual rate, net investment in the third quarter was only at 1985 levels. Net investment in the year to September was £1½ billion, compared with nearly £7½ billion in the corresponding period a year earlier.

58. Sterling commercial paper outstanding increased by £65 million in September to £3,752 million. The increase was much

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lower than in July (£177 million) and August (£161 million). ICCs sterling commercial paper outstanding increased by £90 million in September to £2913 million. This followed a very small increase in August, a month in which commercial borrowing was generally rather low.

59. Domestic bond issues in September amounted to about £220 million - fairly high by recent standards but accounted for by only two individual issues, one of which was for £200 million. In October bond issues totalled £655 million, with £479 million accounted for by Grand Metropolitan. The fixed rate Eurosterling sector has remained quiet with only one issue for £75 million in September and one for £100 million in October. Continuing the pattern of recent months, the FRN sector was the most active in September, with four issues which totalled £595 million, roughly equal to the average monthly issue so far this year. One of the FRN issues was for a building society, the rest were mortgage related securities. In October £720 million was issued - all mortgage related.

60. Foreign currency borrowing by UK borrowers on the international bond market increased from £315 million in August to £379 million in September. Borrowing by ICCs was £95 million in September, lower than in August (£175 million). The outlook is for a recovery in ICCs' foreign currency borrowing in October to August's level. Total foreign currency borrowing is expected to be around £225 million.

THE EC/GALLUP CONSUMER CONFIDENCE INDICATOR

1. The EC/Gallup indicator is published regularly by the Commission. It is based on a survey of consumers' opinion in the UK by Gallup. When the survey was started in 1973 it was carried out 3 times a year; since September 1984 it has been monthly. The EC indicator itself is the average balance of the five separate questions set out in title A1. The balances of the individual questions are calculated by taking half the balance of those replying 'a little better' over those replying 'a little worse' and adding this to the balance of those replying 'a lot better' over those replying 'a lot worse'. The overall balances are thus similar to the familiar CBI balances, allowing for the fact that the Gallup questions have five possible answers, while the CBI questions have only three.

The Quarterly Data

2. We have interpolated a quarterly series from the available data and this is compared with the growth of consumers' expenditure in Chart A1. Both series have been smoothed by taking moving averages. Before 1979 the indicator leads consumers expenditure by one or two quarters. Between 1979 and 1981, the indicator looks more nearly coincident with expenditure growth. The indicator increased sharply in early 1982, foreshadowing the rapid growth of consumption later in the year. The subsequent slow down in consumption growth in mid 1983 and its later recovery in mid-1984 were also anticipated by the indicator. Finally the levelling off of consumption growth in early 1988 was preceded by the levelling off of the indicator.

3. It is interesting to note that the rise in consumption growth in the second half of 1987 looks rather small in relation to the sharp growth of the indicator earlier in the year. This could reflect the suspected underestimation of consumers expenditure in 1987 and 1988. (As is well known the expenditure measure of GDP shows implausibly slow growth over the last year or so. This is generally believed to reflect under recording of expenditure items

including consumers' expenditure which accounts for about half of GDP).

The Monthly Data

4. Charts A2.1 and A2.3 compare the monthly data, available since late 1984, with the monthly data for retail sales. The monthly series are, of course, more erratic. Nevertheless, they support the view that the indicator is closely related to changes in expenditure. Chart A2.1 shows that between May 1985 and February 1987, nearly every change in retail sales was preceded by a change in the same direction of the confidence indicator a month earlier. The indicator rose more steeply in the middle of 1987 than retail sales, and fell erratically from July 1987 while retail sales continued to increase albeit at a slower rate. But the earlier pattern seems to have re-emerged with the sharp increase in retail sales between June and July, the subsequent slow down in August and fall in September predicted one or two months in advance by the indicator. The sharp fall in the indicator in the last two months could thus suggest further falls in retail sales in October and November.

5. Chart A2.2 compares the indicator with the 3 month percentage increase in retail sales. It tells much the same story as chart A2.1.

6. While we do not yet have enough experience of the indicator to draw precise conclusions, its recent behaviour does suggest a relationship with the subsequent performance of retail sales and consumers' expenditure. There is a good chance that the recent sharp decline in the indicator presages a significant slow down in retail sales. Nevertheless, despite its recent fall, the indicator remains at a higher level than any time between September 1984 and January 1987.

TABLE A1 CONSUMER CONFIDENCE INDICATOR

Q1 How do you think the general economic situation in this country has changed over the last 12 months?

Q2 How do you think the general economic situation in this country will develop over the next 12 months?

Q3 How does the financial situation of your household now compare with what it was 12 months ago?

Q4 How do you think the financial situation of your household will change over the next 12 months?

Q5 Do you think that there is an advantage for people to make major purchases (furniture, washing machines, TV set, etc) at the present time?

Permitted replies

Q1-Q4 a lot better, a little better, same, a little worse, a lot worse.

Q4 Yes - now is the right time.
Neither right nor wrong time.
No - it is the wrong time.

'Don't know' is allowed for all questions.

CHART A1: CONSUMER CONFIDENCE AND CONSUMER SPENDING
(3 quarter moving average)

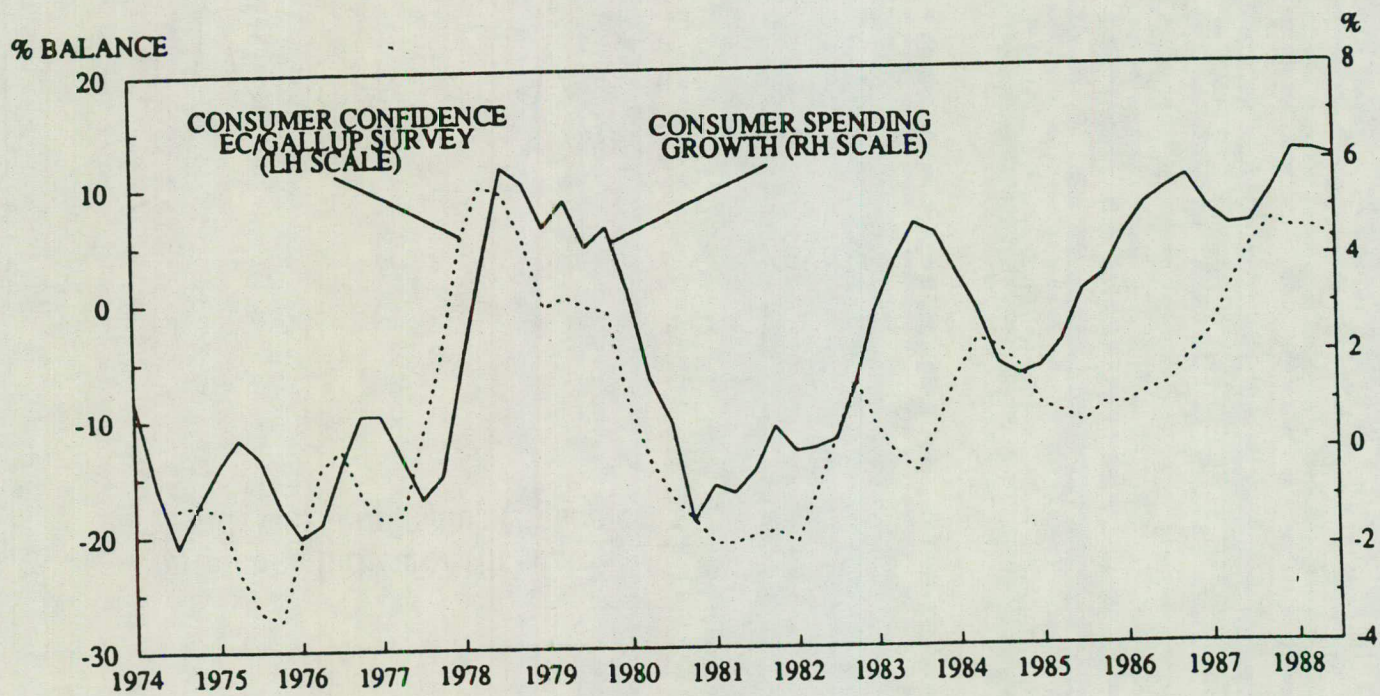


Chart A2.1: indicator and retail sales

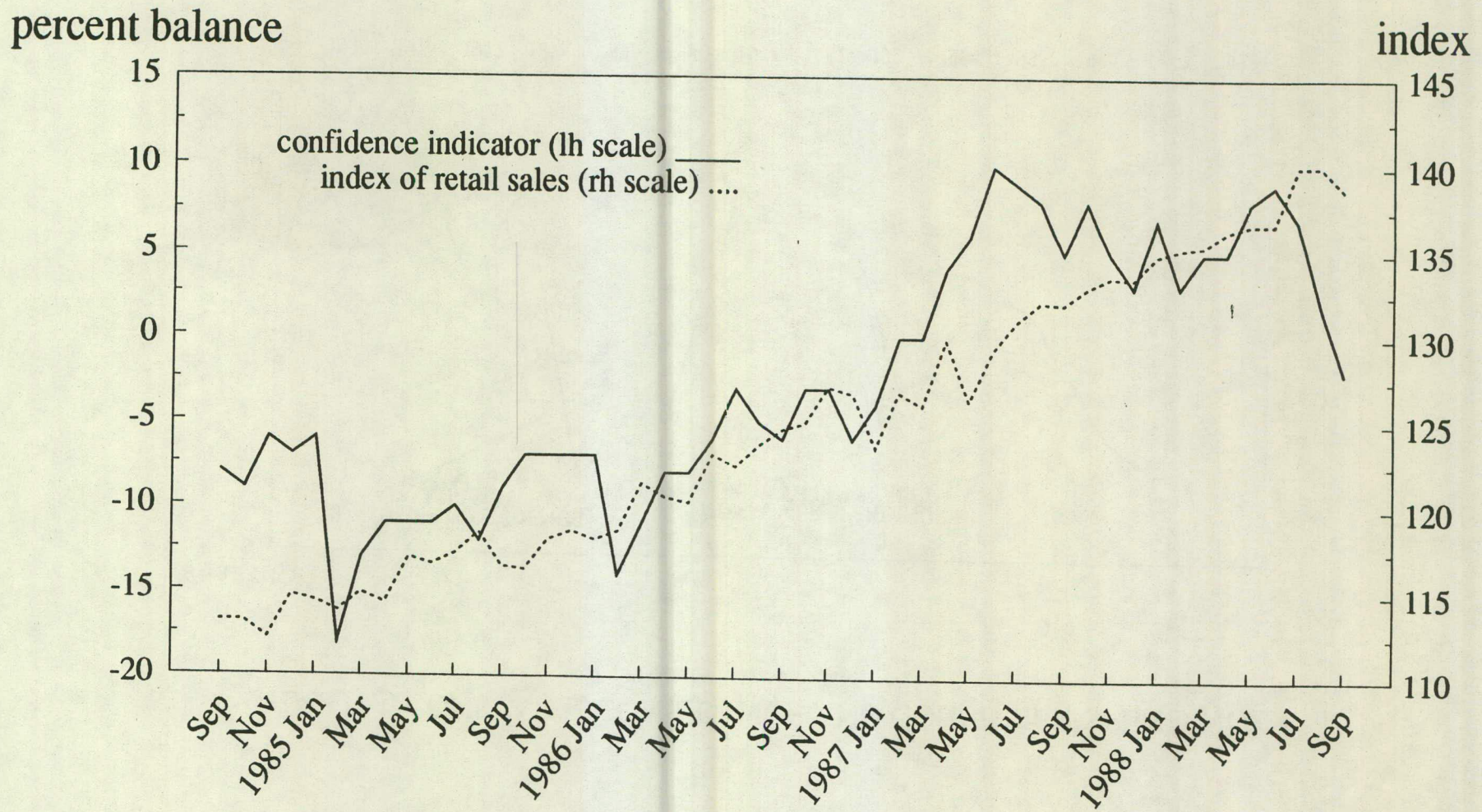
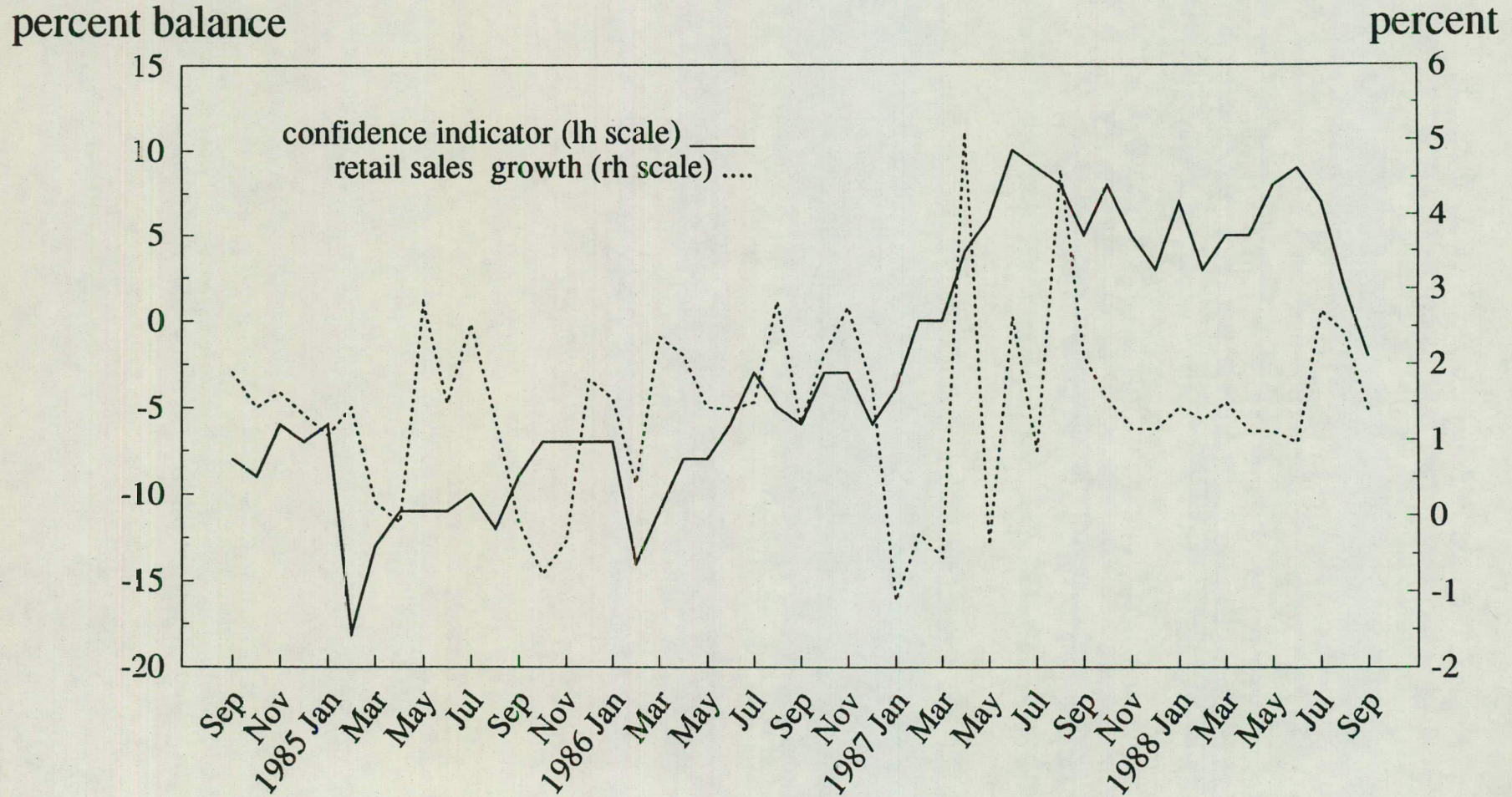


Chart A2.2: indicator and retail sales growth



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Table 1: Developments in the G7 (including UK)*

	Activity			Money supply		Costs and prices		
	Nominal GNP	Real GNP	Industrial production	M1**	M2/M3	Unit labour costs	Consumer prices	GNP deflator
1984	9.3	4.8	7.5	6.7	8.6	-0.2	4.5	4.2
1985	7.1	3.3	2.8	8.2	8.6	1.7	3.9	3.7
1986	6.2	2.7	1.1	11.0	8.3	1.4	1.9	3.4
1987	6.3	3.2	3.1	11.2	8.9	0.1	2.7	3.0
1987 Q1	5.8	2.4	1.1	13.7	9.0	0.5	1.8	3.4
Q2	5.8	2.6	2.2	12.5	9.3	0.1	2.9	3.1
Q3	6.4	3.6	3.7	10.1	8.8	-0.6	3.2	2.7
Q4	7.3	4.4	5.4	8.0	8.7	-1.4	3.4	2.8
1988 Q1	7.7	4.8	6.2	7.2	8.3	-0.8	2.9	2.8
Q2	7½+	4½+	5.7	6.7+	8.3+		2.9	3+
1987 Jul			2.9	10.9	8.9		3.0	
Aug			4.3	10.5	8.9		3.4	
Sep			4.0	9.6	8.5		3.4	
Oct			5.2	10.1	9.0		3.5	
Nov			5.7	8.4	8.7		3.5	
Dec			5.4	6.2	8.3		3.4	
1988 Jan			6.8	6.9	8.2		3.0	
Feb			6.0	7.3	8.4		2.9	
Mar			5.8	7.1	8.3		2.9	
Apr			5.8	6.9	8.3		2.9	
May			5.2	6.1	8.1		2.9	
June			6.0	7.1+	8.3+		2.9	
Jul			5.3	6.9+	8.4+		3.1	
Aug				6.3+	8.5+		3.2	

* Percentage changes on a year before.

+ Partly estimated.

** M1 figures for G5 (exclude Italy and Canada)

Table 2

GERMANY: KEY FIGURES

	INDUSTRIAL PRODUCTION* index		CONSUMER PRICES*	TRADE SURPLUS** \$bn		MONEY SUPPLY (M3)*
1984	3.0		2.4	1.7		3.3
1985	4.9		2.2	2.2		3.8
1986	1.7		- 0.2	4.5		4.2
1987	0.3		0.3	5.5		6.7
1987 J	- 1.9	105.0	- 0.8	4.8	(4.5)	6.7
F	- 0.9	106.0	- 0.5	6.1	(4.7)	7.1
M	0.0	106.0	- 0.2	4.8	(4.9)	6.6
A	- 0.9	108.0	0.1	5.3	(5.0)	7.9
M	1.9	108.0	0.2	6.0	(5.2)	8.5
J	- 0.6	107.4	0.2	4.6	(5.1)	7.4
J	- 3.3	106.4	0.7	5.6	(5.1)	6.7
A	1.9	109.0	0.8	4.9	(5.1)	6.5
S	0.9	108.0	0.4	5.8	(5.2)	5.8
O	0.9	109.0	0.9	4.8	(5.2)	5.8
N	1.9	109.0	1.0	6.1	(5.3)	5.5
D	2.8	109.0	1.0	6.8	(5.5)	5.8
1988 J	3.8	109.0	0.7	6.5	(5.6)	5.8
F	3.8	110.0	0.9	4.9	(5.4)	6.1
M	3.8	110.0	1.0	4.3	(5.5)	6.1
A	1.2	109.3	1.0	6.5	(5.5)	6.3
M	1.5	109.6	1.1	5.7	(5.6)	6.3
J	4.9	112.7	1.1	7.6	(5.8)	6.5
J	2.3	108.8	1.0	5.9	(5.8)	6.2
A	5.4	114.9	1.2			6.1
S			1.4			

* Percentage changes on a year before.

** Yearly figures are monthly averages. Monthly figures in brackets are 12 month moving averages.

TABLE 3

THREE MONTH INTEREST RATES IN THE G5 COUNTRIES*

	United States	Japan	Germany	France	UK
1983	9.1	6.7	5.8	12.5	10.1
1984	10.1	6.5	6.0	11.7	9.9
1985	8.1	6.6	5.5	10.0	12.2
1986	6.5	5.1	4.6	7.8	11.0
1987	6.9	4.2	4.0	8.2	9.7
1987 Jan	5.8	4.3	4.6	8.4	11.0
Feb	6.1	4.2	4.0	8.5	11.0
Mar	6.2	4.2	4.0	8.0	10.0
Apr	6.5	4.1	3.9	8.0	9.8
May	7.0	3.8	3.8	8.2	8.8
June	7.0	3.9	3.7	8.2	9.0
July	6.7	4.0	3.9	7.9	9.2
Aug	6.8	4.0	4.0	7.9	10.1
Sept	7.4	4.2	4.0	7.9	10.1
Oct	8.2	4.8	4.8	8.2	9.9
Nov	7.4	4.3	3.9	8.6	9.0
Dec	7.8	4.5	3.6	8.7	8.7
1988 Jan	7.0	4.4	3.4	8.3	8.9
Feb	6.6	4.3	3.4	7.6	9.2
Mar	6.7	4.4	3.4	8.0	8.8
Apr	6.9	4.2	3.4	8.1	8.3
May	7.3	4.3	3.6	7.9	8.0
June	7.6	4.4	3.9	7.4	8.7
July	7.9	4.8	5.0	7.3	10.5
Aug	8.4	4.9	5.4	7.6	11.3
Sep	8.3	5.0	5.0	8.0	12.2
Oct 26	8.5	4.6	5.1	7.9	12.1

* CD rate for US, and Japan, Interbank rates for rest.

TABLE 4

EFFECTIVE EXCHANGE RATE INDICES (1975 = 100)

	United States	Japan	Germany	France	UK	YEN/\$	DM/\$
1980	93.7	126.4	128.8	94.4	96.0	225.8	1.82
1981	105.6	142.9	119.2	84.3	94.8	219.5	2.25
1982	118.0	134.6	124.4	76.6	90.4	248.8	2.43
1983	124.8	148.4	127.1	70.0	83.2	237.4	2.55
1984	134.6	156.7	123.8	65.7	78.6	237.5	2.85
1985	140.7	160.5	123.6	66.3	78.2	238.3	2.94
1986	114.8	203.1	137.3	70.1	72.8	168.3	2.17
1987	101.2	219.6	147.6	71.8	72.7	144.7	1.80
1986 Q1	121.2	186.8	133.1	71.0	75.1	188.2	2.35
Q2	116.0	202.8	134.7	69.0	76.0	170.0	2.24
Q3	111.4	214.8	138.6	69.5	71.9	156.0	2.09
Q4	110.5	208.0	142.6	70.8	68.3	160.3	2.01
1987 Q1	104.2	210.1	147.7	71.9	70.2	153.2	1.84
Q2	101.1	222.9	146.9	71.6	72.7	142.6	1.81
Q3	102.5	218.0	146.4	71.4	72.7	147.0	1.84
Q4	97.0	227.4	149.4	72.3	75.2	134.0	1.71
1988 Q1	94.2	240.2	149.6	71.9	75.4	128.1	1.68
Q2	93.5	245.4	147.7	70.9	77.6	125.7	1.71
Q3	99.0	239.5	143.9	69.0	75.9	133.6	1.86
1987 Jan	105.5	209.4	147.5	71.8	68.9	154.6	1.86
Feb	103.9	209.3	148.4	72.3	69.0	153.4	1.82
Mar	103.3	211.7	147.1	71.8	71.9	151.5	1.84
Apr	101.0	222.7	146.6	71.6	72.3	142.9	1.81
May	100.4	225.3	147.2	71.7	73.3	140.6	1.79
Jun	101.8	220.8	146.8	71.5	72.6	144.4	1.82
Jul	103.3	213.7	146.6	71.6	72.8	150.2	1.85
Aug	103.3	218.2	146.0	71.1	72.3	147.6	1.86
Sep	100.8	222.1	146.7	71.4	73.0	143.1	1.81
Oct	100.6	221.4	147.1	71.5	73.6	143.3	1.80
Nov	96.5	228.4	150.9	72.3	75.4	135.3	1.68
Dec	93.9	232.4	150.2	73.1	75.8	123.4	1.65
1988 Jan	93.0	239.5	150.4	72.5	75.0	127.9	1.65
Feb	95.0	239.5	149.1	71.8	74.3	129.2	1.70
Mar	93.6	241.6	149.3	71.5	76.8	127.1	1.68
Apr	92.7	245.0	148.9	71.3	78.2	124.9	1.67
May	93.0	246.2	147.9	71.1	78.4	124.8	1.69
Jun	94.8	244.9	146.2	70.4	76.2	127.4	1.76
Jul	98.1	239.2	144.2	69.5	75.6	133.1	1.85
Aug	99.5	240.6	143.1	68.6	76.5	133.6	1.89
Sept	99.5	239.2	144.4	68.8	75.6	134.4	1.87
Oct 26	94.9	249.5	146.0	69.3	76.0	125.7	1.77
% Change since dollar peak (Feb 85)	- 39.6	+ 58.8	+ 24.6	+ 11.8	+ 8.3	- 51.8	- 48.4
% Change since Plaza (Sept 85)	- 32.0	+ 59.3	+ 16.3	+ 3.1	- 7.3	- 48.0	- 39.0
% Change since Louvre Accord (Feb 87)	- 8.8	+ 19.3	- 1.6	- 4.0	+ 10.0	- 18.2	- 3.2

TABLE 5.

ECONOMIST COMMODITY PRICE INDICES

1985=100

Annual	All items indices				SDR indices		
	SDR	Dollar	Sterling	Real*	Food	Nfa**	Metals
1980	104.4	133.7	74.0	115.6	96.7	106.2	118.6
1981	99.3	115.2	73.5	105.3	93.7	104.7	106.2
1982	91.8	99.9	73.4	94.3	89.3	96.0	93.8
1983	107.2	112.7	95.7	110.4	102.0	116.6	110.1
1984	110.3	111.5	107.2	113.1	112.3	111.6	106.2
1985	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1986	89.8	103.7	90.6	86.4	92.4	89.9	85.4
1987	87.4	111.5	87.1	82.2	73.0	103.3	100.6
Quarterly							
1986 Q3	84.6	100.2	86.2	81.8	85.1	85.5	83.1
Q4	84.2	100.1	89.5	80.2	82.2	91.0	82.8
1987 Q1	81.0	100.8	83.5	76.5	73.2	95.2	84.3
Q2	84.9	108.2	84.4	80.7	73.2	102.6	92.1
Q3	90.2	113.4	90.0	84.6	70.7	111.9	108.0
Q4	93.4	123.7	90.3	87.0	74.7	103.3	117.9
1988 Q1	99.8	134.6	95.9	93.9	77.6	105.5	133.4
Q2	115.5	155.7	108.8	109.1	84.0	115.1	169.1
Q3	116.4	148.8	112.4	107.4	92.9	114.0	157.9
Monthly							
August	91.4	114.2	91.8		69.6	115.0	111.7
September	90.1	114.5	89.3		70.7	111.4	107.9
October	93.5	119.3	92.3		74.2	106.8	117.0
November	91.3	121.3	88.1		74.2	101.4	113.3
December	94.8	129.1	90.5		75.6	102.1	122.4
January	97.4	132.2	94.1		78.1	102.7	126.6
February	98.2	131.2	95.6		78.0	106.5	126.7
March	103.8	140.3	98.0		76.8	107.3	157.0
April	106.4	144.9	99.1		77.3	110.5	152.8
May	113.4	153.8	105.7		80.9	114.1	168.2
June	126.7	168.4	121.6		93.9	120.8	186.4
July	119.1	152.9	115.1		96.9	117.7	157.6
August	116.9	148.9	112.5		91.0	113.5	163.1
September	113.3	144.5	109.5		90.9	110.9	152.9
Weekly							
Aug 23	118.4	149.8	114.4		90.2	111.6	171.0
30	117.8	150.1	113.8		90.8	111.4	168.1
Sep 6	116.5	148.8	112.0		93.1	112.1	159.2
13	114.9	147.2	111.2		92.1	112.1	155.4
20	112.0	142.9	108.6		89.3	110.0	152.1
27	109.6	139.2	106.3		89.0	109.3	144.8
Oct 4	110.6	141.1	106.8		90.0	110.2	145.9
11	111.8	143.9	107.5		88.4	109.4	153.2
18(prov)	112.0	146.3	107.1		88.8	107.5	154.7
% ch. on one yr	+21.7	+24.1	+17.3		+22.6	+1.6	+36.6

* In relation to prices of manufactured exports. Recent figures are estimated.

** Non-food agriculturals.

TABLE 6

RECENT INDICATORS OF ACTIVITY AND INFLATION
(per cent changes on year earlier)

	OUTPUT AND ACTIVITY				PRICES AND UNIT			LABOUR COSTS			
	MONEY GDP	GDP (0)	MANUFACTURING OUTPUT	RETAIL SALES	RPI	RPI EXCL. MORTGAGE PAYMENTS	PRODUCER OUTPUT	PRICES** INPUT	UNIT MANUFACTURING	WAGE	COSTS WHOLE ECONOMY
1985-86	9.7	1986 2.9	0.9	5.3	3.4	3.6	4.1	-10.5	4.5		5.5
1986-87	6.9	1987 4.7	5.8	5.9	4.1	3.7	4.4	5.0	0.8		4.4
1987-88	9.8										
1986 Q1	8.0	2.3	-1.5	4.4	4.3	4.6	4.8	-11.3	8.3		6.1
1986 Q2	6.6	1.9	-1.0	4.7	2.8	3.3	4.0	-13.5	6.6		6.7
1986 Q3	5.8	3.2	0.7	5.4	2.6	3.3	3.8	-11.9	3.8		4.7
1986 Q4	7.2	3.9	5.5	7.3	3.4	3.4	3.7	-5.0	-0.3		4.6
1987 Q1	7.4	3.9	3.9	5.1	3.9	3.7	3.8	-0.7	1.1		4.1
1987 Q2	8.7	4.4	6.3	5.8	4.2	3.7	4.4	5.4	-0.3		4.4
1987 Q3	11.5	5.2	7.4	6.6	4.3	3.6	4.5	10.8	0.2		4.2
1987 Q4	10.1	5.3	5.7	5.6	4.1	4.0	4.8	5.1	1.9		5.0
1988 Q1	10.0	6.3	7.6	7.8	3.4	3.7	4.7	3.6	0.5		4.7
1988 Q2	10.1	5.7	6.1	6.3	4.2	4.4	4.7	6.2	2.1		4.4
1988 Q3				5.9			4.9	4.0			
1988-1989*	10.5-11.5										
1987 MAY			6.5	5.0	4.1	3.8	4.4	4.2			
JUNE			5.3	5.0	4.2	3.5	4.5	8.1			
JULY			6.7	7.0	4.4	3.7	4.5	12.4			
AUGUST			9.8	6.8	4.4	3.5	4.6	11.5			
SEPTEMBER			5.8	5.9	4.2	3.5	4.5	8.5			
OCTOBER			6.7	6.4	4.5	3.8	4.7	7.1			
NOVEMBER			5.4	5.1	4.1	4.0	4.8	4.6			
DECEMBER			4.8	5.4	3.7	4.0	4.8	3.6			
1988 JANUARY			10.2	9.1	3.3	3.7	4.8	2.8	-2.3		
FEBRUARY			4.9	6.7	3.3	3.6	4.7	3.8	1.0		
MARCH			7.7	7.5	3.5	3.8	4.7	4.1	0.8		
APRIL			5.6	5.0	3.9	4.2	4.6	4.8	3.4		
MAY			6.2	8.3	4.2	4.4	4.7	6.3	2.3		
JUNE			6.7	5.8	4.6	4.7	4.7	7.4	0.9		
JULY			7.2	6.9	4.8	5.0	4.8	4.7	0.2		
AUGUST			6.9	6.1	5.7	5.0	4.9	3.8	1.0		
SEPTEMBER				5.1	5.9	5.2	5.0	3.8			

* Autumn preliminary view

** Excluding food drink and tobacco

Output and sales growth figures boosted by 2.5-3 per cent on account of lower economic activity during exceptionally cold January of 1987

TABLE 7 UNDERLYING RETAIL PRICE INFLATION

		% change on a year earlier		
		RPI	RPI exc mortgages	RPI exc both mortgages and petrol
1984	Q1	5.2	4.5	4.4
	Q2	5.2	4.9	5.0
	Q3	4.7	4.2	4.4
	Q4	4.8	4.1	4.1
1985	Q1	5.5	4.8	4.6
	Q2	7.0	5.3	4.9
	Q3	6.3	5.4	5.2
	Q4	5.5	5.2	5.3
1986	Q1	4.9	4.6	5.2
	Q2	2.8	3.3	4.8
	Q3	2.6	3.3	4.8
	Q4	3.4	3.4	4.5
1987	Q1	3.9	3.7	4.3
	Q2	4.2	3.6	3.6
	Q3	4.3	3.6	3.5
	Q4	4.1	4.0	4.1
1988	Q1	3.4	3.7	4.0
	Q2	4.3	4.4	4.7
	Q3	5.5	5.1	5.4
1987	July	4.4	3.7	3.6
	Aug	4.4	3.7	3.5
	Sept	4.2	3.5	3.6
	Oct	4.5	3.9	4.0
	Nov	4.1	4.0	4.2
	Dec	3.7	4.0	4.1
1988	Jan	3.3	3.7	3.9
	Feb	3.3	3.6	4.0
	March	3.5	3.8	4.2
	April	3.9	4.2	4.5
	May	4.2	4.4	4.7
	June	4.6	4.7	4.9
	July	4.8	5.0	5.3
	August	5.7	5.0	5.3
	September	5.9	5.2	5.5

TABLE 8 : INDICATORS OF FISCAL STANCE

	PSBR		PSBR EXCLUDING PRIVATISATION PROCEEDS		PSFD (1)	
	Cash	Ratio to	Cash	Ratio to	Cash	Ratio to
	£ billion	GDP (per cent)	£ billion	GDP (per cent)	£ billion	GDP (per cent)
1970-71	0.8	1.5	0.8	1.5	0.2	0.4
1971-72	1.0	1.6	1.0	1.6	0.7	1.1
1972-73	2.4	3.6	2.4	3.6	2.0	3.0
1973-74	4.3	5.8	4.3	5.8	3.5	4.6
1974-75	8.0	9.0	8.0	9.0	6.0	6.7
1975-76	10.3	9.3	10.3	9.3	8.1	7.3
1976-77	8.3	6.4	8.3	6.4	7.4	5.7
1977-78	5.3	3.5	5.9	3.9	6.6	4.4
1978-79	9.2	5.3	9.2	5.3	8.3	4.8
1979-80	9.9	4.8	10.3	5.0	8.1	3.9
1980-81	12.5	5.3	12.9	5.5	11.6	4.9
1981-82	8.6	3.3	9.1	3.5	5.5	2.1
1982-83	8.9	3.1	9.4	3.3	8.4	3.0
1983-84	9.7	3.2	10.9	3.5	11.7	3.8
1984-85*	10.1	3.1	12.2	3.7	13.4	4.1
1985-86*	5.7	1.6	8.4	2.3	7.6	2.1
1986-87	3.4	0.9	7.9	2.0	8.7	2.2
1987-88	-3.7	-0.9	1.5	0.3	1.4	0.3
Budget forecast						
1988-89	-3.2		1.8		1.4	

*If adjusted for coal strike, PSBR and PSFD ratios to GDP roughly 0.9 per cent lower in 1984-85 and 0.2 per cent lower in 1985-86.

(b) Quarterly Data

	£ billion	PSBR		PSBR excluding privatisation		PSFD	
		sa*	ua	sa*	ua	sa+	ua
		1985	Q2	1.2	2.7	2.5	3.9
	Q3	1.8	2.8	2.3	3.3	1.4	1.7
	Q4	1.4	2.0	2.0	2.5	2.2	0.5
1986	Q1	1.1	-1.9	1.6	-1.5	1.4	1.4
	Q2	2.3	2.4	3.4	3.5	2.1	3.2
	Q3	2.1	3.5	2.1	3.5	3.1	4.0
	Q4	-1.3	-1.7	0.9	0.5	1.5	0.6
1987	Q1	0.4	-0.9	1.6	0.3	2.5	2.1
	Q2	0.4	1.5	2.8	3.8	2.0	3.0
	Q3	0.0	0.5	1.6	2.0	0.4	1.6
	Q4	-2.3	-2.5	-1.2	-1.3	0.2	-2.0
1988	Q1	-1.7	-3.0	-1.7	-3.1	-0.6	1.2
	Q2	-2.2	-1.5	0.6	1.3	-0.7	-0.9

*financial year - constrained

+calendar year - constrained

Table 9: CGBR(O) April to September: Differences from Budget profile

	£ billion	percentage
Receipts		
Inland Revenue ⁽²⁾	+0.8	+2.9
Customs and Excise	+0.9	+3.8
NICs ⁽²⁾	+0.1	+0.5
Interest and dividends	+0.3	+6.1
Other receipts	+0.2	+14.0
Total receipts	+2.2	+3.1
Expenditure		
Privatisation proceeds	--	+1.0
Interest payments	+0.2	+2.0
Departmental expenditure ⁽¹⁾	-1.9	-2.8
Total expenditure	-1.7	-2.4
Net effect on CGBR(O)	-3.9	

⁽¹⁾ on a cash basis, net of certain receipts and on-lending

⁽²⁾ Difference from Budget profile understated because of the effects of the postal dispute

TABLE 10

HALIFAX STANDARDISED INDEX OF ALL HOUSE PRICES

	Index	Percentage Change On Previous Month	3 Month % Growth Annualised	Percentage Change On Previous Year
<u>Annual Data</u>				
1983	100.0			
1984	107.2			7.2
1985	117.0			9.1
1986	129.9			11.0
1987	149.9			15.4
<u>Quarterly Data</u>				
1987	Q1	140.6		14.8
	Q2	147.3		14.5
	Q3	152.6		14.7
	Q4	158.2		15.6
1988	Q1	164.9		17.3
	Q2	180.2		22.3
	Q3	198.9		30.3
<u>Monthly Data</u>				
1987	Aug	152.5	0.9	14.9
	Sept	154.0	1.0	12.9
	Oct	155.8	1.2	12.7
	Nov	159.1	2.1	18.5
	Dec	160.1	0.6	16.8
1988	Jan	159.8	-0.2	10.7
	Feb	164.3	2.8	13.7
	Mar	168.9	2.8	23.9
	Apr	174.5	3.3	42.2
	May	179.7	3.0	43.1
	June	185.5	3.2	45.5
	July	193.4	4.3	50.9
	Aug	199.3	3.1	51.3
	Sept	206.4	3.6	53.3
	Oct	209.4	1.5	37.4
				34.4

UNCLASSIFIED

TABLE 11

EXCHANGE RATES

		Exchange Rate Index*	Real Exchange Rate @	ERI/(Oil Price Adjusted ERI)†	Dollar: Sterling exchange rate	D-Mark: Sterling exchange rate	Index against EMS currencies*	US-UK Interest rate differential	Brent spot price (\$/bl)
1985	(1)	72.1	80.1	0.908	1.12	3.63	95.2	+4.1	27.7
	(2)	78.9	88.9	1.001	1.26	3.88	102.3	+4.4	27.0
	(3)	82.1	93.3	1.040	1.38	3.92	103.8	+3.6	27.4
	(4)	79.8	91.6	1.001	1.44	3.71	98.7	+3.5	28.3
1986	(1)	75.1	88.3	1.037	1.44	3.38	90.9	+4.5	17.8
	(2)	76.1	91.9	1.101	1.51	3.39	91.4	+3.2	12.8
	(3)	71.9	88.0	1.049	1.50	3.10	84.9	+3.8	12.4
	(4)	68.3	84.0	0.970	1.43	2.87	79.0	+5.1	14.8
1987	(1)	69.9	86.6	0.967	1.54	2.83	78.8	+4.3	17.9
	(2)	72.8	90.6	0.996	1.64	2.96	82.6	+2.1	18.6
	(3)	72.7	90.2	0.992	1.62	2.97	83.0	+2.8	19.0
	(4)	74.9	93.4	1.030	1.76	2.99	83.8	+1.2	18.1
1988	(1)	75.2	94.8	1.057	1.78	3.01	84.5	+2.2	15.7
	(2)	77.7	98.0	1.088	1.84	4.14	88.3	+1.0	16.2
1987	July	72.8	90.4	0.985	1.61	2.97	82.9	+2.6	19.8
	August	72.3	89.5	0.988	1.60	2.97	82.8	+3.2	18.9
	September	73.1	90.7	1.004	1.65	2.98	83.2	+2.6	18.3
	October	73.6	91.5	1.006	1.66	2.99	83.5	+1.7	18.8
	November	75.4	94.0	1.040	1.78	2.99	83.9	+1.0	17.8
	December	75.7	94.7	1.045	1.83	2.98	84.0	+0.9	17.7
1988	January	74.8	94.1	1.038	1.78	2.98	83.5	+1.8	16.7
	February	74.3	93.4	1.047	1.75	2.98	83.7	+2.6	15.6
	March	76.5	96.8	1.087	1.82	3.06	86.4	+2.1	14.8
	April	78.4	98.9	1.097	1.88	3.14	88.3	+1.2	16.4
	May	78.3	99.0	1.094	1.87	3.17	89.0	+0.5	16.5
	June	76.3	96.2	1.073	1.78	3.12	87.7	+1.3	15.8
	July	75.5	95.7	1.071	1.70	3.14	88.2	+2.4	15.0
	August	76.4	97.0	1.085	1.70	3.20	90.1	+2.8	14.8
	September	75.9	95.9	1.110	1.69	3.70	89.3	+3.3	11.9
	October 26	76.0	96.0	1.106	1.76	3.12	88.1	+3.6	12.4

† Oil price adjusted ERI of 1.0 has roughly the same inflation implications as does an ERI of 80 given an oil price of \$29 (their average values for January 1983 - November 1985). The ratio shown therefore indicates whether movements in the ERI are inflationary or otherwise, relative to the period Jan-1983 - Nov 1985, having allowed for oil prices.

* 1975=100

@Figures for latest months are tentative forecasts based on extrapolated producer price indices

UNCLASSIFIED

TABLE 12: NOMINAL AND REAL INTEREST RATES

		NOMINAL RATES				REAL RATES				
		Three month interbank	Three month Eurodollar	Base Rate	Long Rate (20 year Gilts)	Expected inflation over 12 months*	Real 3-month interbank rate	Yield on Index-linked Gilts**		
								1990	2001	2011
1985	(1)	13.0	8.9	12.9	10.9	5.7	6.9	4.4	3.5	3.2
	(2)	12.6	8.2	12.6	10.8	5.6	6.6	4.3	3.8	3.4
	(3)	11.7	8.1	11.7	10.4	5.3	6.1	4.3	3.8	3.5
	(4)	11.6	8.1	11.5	10.3	4.2	7.1	4.1	3.9	3.6
1986	(1)	12.4	7.9	12.3	10.2	3.9	8.2	4.3	4.2	3.8
	(2)	10.2	7.0	10.4	9.0	3.6	6.5	3.6	3.6	3.4
	(3)	10.0	6.2	10.0	9.7	3.4	6.5	3.7	3.9	3.5
	(4)	11.2	6.1	11.0	10.7	4.1	6.8	3.7	4.1	3.8
1987	(1)	10.6	6.3	10.8	9.6	4.3	6.0	3.0	3.7	3.5
	(2)	9.2	7.1	9.4	9.0	3.8	5.2	2.4	3.8	3.6
	(3)	9.9	7.1	9.7	9.8	3.7	6.0	2.6	4.2	3.9
	(4)	9.2	7.8	9.0	9.5	4.0	4.7	2.4	4.1	3.8
1988	(1)	9.0	6.9	8.7	9.4	4.1	4.8	2.2	4.0	4.0
	(2)	8.4	7.4	8.0	9.2	4.0	4.5	2.0	3.8	3.8
1987	August	10.2	7.0	10.0	10.0	3.9	6.1	2.6	4.3	4.0
	September	10.1	7.5	10.0	10.0	4.0	5.9	3.1	4.2	4.0
	October	10.0	8.3	9.5	9.8	4.2	5.6	3.1	4.5	4.3
	November	8.9	7.4	9.0	9.2	3.8	4.9	1.9	4.0	3.3
1988	December	8.7	7.8	8.5	9.5	3.9	4.6	2.3	3.9	3.9
	January	8.9	7.1	8.5	9.6	4.1	4.6	2.3	4.2	4.1
	February	9.3	6.7	9.0	9.4	4.2	4.9	2.2	4.0	3.9
	March	8.9	6.8	8.5	9.1	3.9	4.8	2.2	3.9	3.9
	April	8.4	7.2	8.0	9.1	3.9	4.3	1.7	3.8	3.8
	May	7.9	7.4	7.5	9.3	3.9	4.5	2.0	3.7	3.8
	June	9.0	7.7	8.5	9.3	4.2	4.6	2.3	3.8	3.9
	July	10.6	8.2	10.1	9.5	5.2	5.3	2.5	3.9	4.0
	August	11.4	8.6	11.1	9.4	5.6	5.5	2.9	3.9	3.9
	September	11.9	8.6	12.0	9.4	5.9	5.7	3.1	4.0	4.0
October 26	12.2	8.6	12.0	9.3	6.4	5.5	2.4	3.6	3.7	

* Unweighted average of forecasts by Phillips and Drew, National Institute, LBS, James Capel, Oxford Economic Forecasting and Goldman Sachs; the expected rate of inflation for a given month is the change in the price level between six months earlier and six months ahead. This is assumed to approximate roughly to average inflation expectations over the three months immediately ahead.

** Average of yields calculated for each Friday of month and quarterly for last Friday in each month. Assumes inflation averages 5 per cent per annum to redemption.

TABLE 13 CURRENT ACCOUNT

percentage change on previous year				
	Export Volume less oil and erratics	Import Volume less oil and erratics	Terms* of Trade(AVT) 1980=100	Current balance fmn
1982	0.8	8.7	0.0	4685
1983	-0.6	10.3	-0.6	3831
1984	8.6	10.8	-1.1	2022
1985	6.8	4.0	1.6	3338
1986	2.3	6.0	-0.6	-198
1987	6.7	8.5	1.0	-2504
1987 Q1	9.4	3.1	-1.8	846
Q2	5.5	8.8	0.7	-354
Q3	8.7	11.5	1.4	-1103
Q4	3.7	10.0	3.1	-1893
1988 Q1	0.5	13.7	3.1	-2888
Q2	5.7	14.0	1.7	-2933
Q3	5.9	14.5	3.2	-4024**
1987 Dec	3.3	11.0	3.0	-776
1988 Jan	7.4	17.8	3.0	-1023
Feb	-8.3	11.6	3.3	-1166
March	3.1	11.8	3.1	-654
April	6.1	17.9	3.4	-702
May	5.3	8.7	1.1	-1177
June	5.7	16.0	0.9	-1035
July	6.0	24.4	3.0	-2151**
August	4.2	5.8	4.3	-1313**
September	7.6	13.8	2.3	-560**

* Excluding oil and erratics.

**Includes invisibles projection from July 1988.

TABLE 14

CONFIDENTIAL

KEY MONETARY INDICATORS

1987	<u>Sept</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan88</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>
<u>MONETARY AGGREGATES</u>													
12-month % change (u/a)													
M0	5.2	5.5	4.9	4.2	4.8	5.3	6.4	5.9	5.7	7.7	7.0	7.8	8.1
M3	19.7	22.5	21.5	22.9	22.5	20.6	20.9	19.4	18.6	20.3	20.6	20.0	22.6
M4	15.0	15.8	15.3	16.3	16.6	16.1	16.8	16.0	16.1	16.8	17.5	17.3	18.6
M5	14.4	15.3	14.7	15.9	16.3	15.7	16.6	15.7	15.5	16.2	16.8	16.5	17.9
<u>STERLING LENDING</u>													
12-month % change (u/a)													
Banks	23.6	22.9	22.5	22.8	24.7	24.3	25.2	26.9	27.0	27.6	27.8	27.9	27.9
Banks & Building Societies	20.0	19.3	19.0	18.8	20.1	19.9	20.8	21.9	22.2	22.8	23.5	24.1	24.2
<u>OVER(-)/UNDER(+) FUNDING</u>													
Financial year to date: mn	1561	2670	121	1721	-5193	-6649	-1292	-1484	-1072	-449	-581	-1388	-428
<u>MONEY MARKET ASSISTANCE</u>													
Level Outstanding: mn	5421	5403	7073	7221	12507	13425	9673	10074	9572	8877	8141	7975	7189
<u>INTEREST RATES</u>													
3-Month Interbank	10.1	10.0	8.9	8.7	8.9	9.3	8.9	8.4	7.9	9.0	10.6	11.4	11.9
20-Year Par Yield	10.0	9.8	9.2	9.5	9.6	9.4	9.1	9.1	9.3	9.3	9.4	9.4	9.2
<u>EFFECTIVE EXCHANGE RATE</u>													
	73.1	73.6	75.4	75.7	74.8	74.3	76.5	78.4	78.3	76.3	75.5	76.4	75.9

TABLE 15

S E C R E T (Until Publication)

£ million

GROWTH RATES OF MONETARY AGGREGATES

		1987	OCT	NOV	DEC 1988	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT
M0 -	Monthly change	sa	99	49	139	-46	-18	133	139	77	185	141	160	254	-16
	Monthly % change	nsa	-0.2	0.3	7.0	-6.0	-1.0	1.8	1.7	0.1	1.2	2.2	0.8	0.4	-6.1 -0.6
	Monthly % change	sa	0.6	0.3	0.9	-0.3	-0.1	0.8	0.9	0.5	1.1	0.9	1.0	1.5	-0.1
	6-month annualised % change	sa	7.3	7.0	8.5	5.3	4.5	4.6	5.1	5.5	6.0	8.5	10.9	12.4	10.2
	Annual % change	sa	5.6	4.9	4.3	4.6	5.3	5.8	6.2	6.2	7.3	6.9	7.6	8.4	7.6
M3 -	Monthly change	nsa	5799	1187	2579	-2027	688	8623	1464	2575	5085	5796	1549	6402	
	Monthly % change	nsa	3.3	0.7	1.4	-1.1	0.4	4.7	0.8	1.3	2.6	2.9	0.7	3.1	
	Monthly % change	sa	3.7	-0.1	1.4	0.6	0.5	3.0	1.6	0.6	2.4	2.7	0.8	3.2	
	6-month annualised % change	sa	25.6	21.9	21.7	17.9	15.9	19.5	14.8	16.4	18.8	23.9	24.8	25.4	
	Annual % change	nsa	22.5	21.5	22.9	22.5	20.6	20.9	19.4	18.6	20.3	20.6	20.0	22.6	
M4 -	Monthly change	nsa	5468	1504	4892	434	1375	9658	2017	4250	6800	8082	2416	7452	
	Monthly % change	nsa	1.9	0.5	1.6	0.1	0.5	3.2	0.6	1.3	2.1	2.5	0.7	2.2	
	Monthly % change	sa	2.3	0.3	1.3	0.3	1.0	2.2	1.1	0.9	1.9	2.2	1.2	2.2	
	6-month annualised % change	sa	18.9	17.3	16.8	14.0	13.3	15.5	12.9	14.4	15.8	20.2	20.6	20.7	
	Annual % change	nsa	15.8	15.2	16.3	16.6	16.0	16.8	16.0	16.1	16.8	17.5	17.3	18.6	
M5 -	Monthly change	nsa	5601	1458	5201	120	1103	10601	1546	4247	6724	8260	2392	7636	
	Monthly % change	nsa	1.8	0.5	1.7	0.0	0.3	3.3	0.5	1.3	2.0	2.4	0.7	2.2	
	Monthly % change	sa	2.2	0.3	1.3	0.4	0.9	2.2	0.8	0.9	1.8	2.1	1.1	2.2	
	6-month annualised % change	sa	18.9	16.7	16.3	13.7	12.9	15.4	12.3	13.9	15.1	19.0	19.5	19.4	
	Annual % change	nsa	15.3	14.7	15.9	16.3	15.6	16.6	15.7	15.5	16.2	16.8	16.5	17.9	
NIBM1 -	Monthly change	nsa	288	440	390	-1383	861	2152	4	1147	503	134	-276	1219	
	Monthly % change	nsa	0.7	1.0	0.9	-3.1	2.0	4.8	0.0	2.5	1.1	0.3	-0.6	2.5	
	Monthly % change	sa	3.7	-2.4	-0.2	3.7	1.4	1.2	-0.1	1.2	-0.1	0.9	-0.1	2.4	
	6-month annualised % change	sa	24.7	14.0	4.2	11.5	14.1	15.5	7.3	15.3	15.5	9.4	6.0	8.6	
	Annual % change	nsa	11.6	10.2	10.2	11.8	12.6	15.2	13.8	13.4	10.8	10.8	10.5	12.5	
M1 -	Monthly change	nsa	2969	456	-258	-967	-264	5158	1083	2447	1539	615	-659	3245	
	Monthly % change	nsa	3.3	0.5	-0.3	-1.1	-0.3	5.7	1.1	2.5	1.5	0.6	-0.6	3.2	
	Monthly % change	sa	5.0	-1.1	-1.0	2.3	-0.4	3.6	1.2	2.0	0.8	1.0	-0.4	3.0	
	6-month annualised % change	sa	36.4	24.9	15.6	17.9	13.4	17.9	9.6	16.5	20.8	17.6	17.7	16.3	
	Annual % change	nsa	24.9	21.9	23.0	21.9	21.0	21.0	21.2	19.9	18.6	17.9	15.7	17.3	

TABLE 16

 REAL PERCENTAGE GROWTH RATES OF MONETARY AGGREGATES

	RPI less Mortgage Element	Weekly Averaged M0	M3	M4	M5	
FINANCIAL YEARS (12 month % changes to calendar March)						
1981-82	9.8	-6.5	4.2	3.7	3.0	
1982-83	5.9	-0.6	5.4	7.9	8.0	
1983-84	4.6	0.8	3.3	6.8	6.1	
1984-85	5.2	0.3	6.0	8.2	8.2	
1985-86	4.0	-0.5	12.2	10.1	9.1	
1986-87	3.8	0.3	14.8	9.9	9.3	
1987-88	3.8	1.9	16.5	12.5	12.3	
12 MONTH % CHANGES (ua except M0)						
1987	SEPTEMBER	3.5	1.4	15.7	11.1	10.5
	OCTOBER	3.9	1.6	17.9	11.5	11.0
	NOVEMBER	4.0	0.9	16.8	10.8	10.3
	DECEMBER	4.0	0.3	18.2	11.8	11.4
1988	JANUARY	3.7	0.9	18.1	12.4	12.2
	FEBRUARY	3.6	1.6	16.4	12.0	11.6
	MARCH	3.8	1.9	16.5	12.5	12.3
	APRIL	4.2	1.9	14.6	11.3	11.0
	MAY	4.4	1.7	13.6	11.2	10.6
	JUNE	4.7	2.5	14.9	11.6	11.0
	JULY	5.0	1.8	14.9	11.9	11.2
	AUGUST	5.0	2.5	14.3	11.7	11.0
	SEPTEMBER	5.2	3.0	16.5	12.7	12.1

TABLE 17

CONFIDENTIAL (Until Publication)

M0 : THE WIDE MONETARY BASE

Monthly data	Level £ million		(Change in brackets)				Percentage change on previous month		6 month % growth annualised		Percentage change on previous year				
	Notes and Coin (nsa)	Coin (sa)	Bankers' Deposits	M0 (nsa)	M0 (sa)	Notes(sa) and Coin	M0 (sa)	Notes & Coin (sa)	M0 (sa)	Notes and Coin (nsa)	Coin (sa)	M0 (nsa)	M0 (sa)		
1988 January	15458	15620	(-41)	181	15638	15801	(-45)	-0.3	-0.3	6.1	5.3	4.7	4.5	4.8	4.6
February	15353	15659	(39)	124	15477	15783	(-18)	0.2	-0.1	5.3	4.5	5.7	5.7	5.3	5.3
March	15588	15753	(94)	162	15750	15916	(133)	0.6	0.8	5.0	4.6	6.9	6.4	6.4	5.8
April	15797	15826	(73)	229	16026	16055	(139)	0.5	0.9	4.8	5.1	5.8	6.1	5.9	6.2
May	15870	15954	(128)	178	16048	16132	(77)	0.8	0.5	5.6	5.5	6.0	6.5	5.7	6.2
June	16073	16143	(189)	174	16247	16317	(185)	1.2	1.1	6.3	6.0	7.5	7.1	7.7	7.3
July	16411	16271	(128)	188	16599	16459	(142)	0.8	0.9	8.5	8.5	7.5	7.3	7.0	6.9
August	16576	16461	(190)	156	16732	16617	(158)	1.2	1.0	10.5	10.8	8.1	7.9	7.8	7.6
September	16629	16707	(246)	164	16793	16871	(254)	1.5	1.5	12.5	12.4	8.3	8.7	8.1	8.4
October (4/4) a	16505	16669	(-38)	186	16691	16855	(-16)	-0.2	-0.1	10.9	10.2	7.9	7.8	7.7	7.6
Weekly data	Level £ million		(Change in brackets)				Percentage change on previous week								
	Notes(sa) and Coin	Bankers' Deposits	M0 (sa)					M0 (sa)							
September															
7th	16664	(67)	153	16817	(98)		0.6								
14th	16756	(92)	147	16903	(86)		0.5								
21st	16733	(-23)	135	16868	(-35)		-0.2								
28th	16675	(-58)	220	16895	(27)		0.2								
October															
5th	16679	(4)	56	16735	(-160)		-0.9								
12th	16663	(-16)	169	16832	(97)		0.6								
19th	16657	(-6)	286	16943	(111)		0.7								
26th	16677	(20)	231	16908	(-35)		-0.2								

BUILDING SOCIETY BALANCE SHEET FLOWS

Unadjusted # million

	Total Flow	Net Mortgage Advances & Unsecured Lending	A S S E T S		L I A B I L I T I E S				
			Liquid Assets	Fixed Assets	Retail principal	Interest credited	Wholesale funds	Other (eg reserves)	
1985 *	1497	1226	244 (18.0)	27	621	497	205	174	
1986 *	1626	1628	-25 (16.4)	23	549	508	524	45	
1987 *	1650	1268	339 (16.9)	43	630	570	194	256	
1986 Q3*	1788	1930	-163 (15.7)	21	54	402	1144	188	
Q4*	2097	1594	480 (16.4)	23	933	647	448	69	
1987 Q1*	1406	1170	158 (16.1)	78	458	523	111	314	
Q2*	1592	1282	290 (16.2)	20	615	457	108	412	
Q3*	1547	1288	215 (16.1)	44	409	516	337	285	
Q4*	2063	1390	692 (16.9)	-19	1038	785	222	18	
1988 Q1*	1870	1686	10 (16.5)	174	1027	626	113	104	
Q2*	3176	2205	925 (17.0)	46	1349	407	697	716	
Q3*	2636	2506	116 (16.4)	14	986	554	620	476	
July	2986	2716	88 (16.7)	182	1238	734	549	462	
August	2615	2768	-93 (16.4)	-59	1132	116	457	910	
September	2306	2034	354 (16.4)	-82	588	811	855	55	
Forecast									
1988 October	2992	1764	1108 (16.7)	120	1373	734	300	585	

* Monthly averages

Figures in () are end period liquidity ratio, unadjusted

THE COMPONENTS OF M3

BANK DEPOSITS					
	NOTES AND COINS	RETAIL		WHOLESALE	M3
		NIB	IB		
% CHANGES					

Financial years ¹ (ua)					
1984-85	5.2	6.5	7.7	19.1	11.5
1985-86	3.7	4.5	16.8	26.1	16.7
1986-87	2.2	16.9	17.5	25.8	19.1
1987-88	13.7	15.6	12.4	29.2	20.9
Over 12 months (ua)					
1987					
OCTOBER	4.9	14.7	12.9	35.3	22.5
NOVEMBER	1.5	14.3	13.5	33.5	21.5
DECEMBER	6.4	11.9	10.7	38.5	22.9
1988					
JANUARY	6.0	14.5	11.1	35.8	22.5
FEBRUARY	3.4	16.9	10.9	31.1	20.6
MARCH	15.0	15.3	12.4	28.9	20.9
APRIL	9.5	15.7	12.3	26.5	19.4
MAY	5.6	16.9	11.9	25.2	18.6
JUNE	10.8	10.7	15.6	28.3	20.3
JULY	9.0	11.6	17.1	27.9	20.6
AUGUST	4.9	13.0	18.0	26.1	20.0
SEPTEMBER	13.2	12.2	21.9	28.1	22.6
Over 6 months (sa)					
1988					
APRIL	6.6	7.5	11.7	20.4	14.8
MAY	7.9	18.4	9.5	20.8	16.4
JUNE	5.9	19.7	22.5	18.5	18.8
JULY	8.4	9.8	24.7	31.1	23.9
AUGUST	5.7	6.2	29.0	32.6	24.8
SEPTEMBER	6.0	9.9	32.4	30.3	25.4
CHANGES MILLION					

Monthly average ¹ (sa)					
1984-85	42	56	238	683	1017
1985-86	17	90	161	556	1565
1986-87	4	359	538	1255	2157
1988					
MARCH	281	256	1335	3701	5573
APRIL	-87	53	351	2815	3132
MAY	-47	606	131	527	1217
JUNE	94	-154	2251	2540	4731
JULY	392	29	1515	3567	5503
AUGUST	-257	206	1032	744	1725
SEPTEMBER	309	851	2270	3322	6752

1 March on March

TABLE 20

THE COMPONENTS OF M4 AND M5

	BUILDING SOCIETIES				M4	MONEY MARKET INSTRUMENTS	M5
	M3	RETAIL ¹	WHOLESALE	HOLDINGS OF M3			
% CHANGES							
Financial years³ (ua)							
1984-85	11.5	15.1				13.8	13.8
1985-86	16.7	15.3		94	-0.1	13.5	14.5
1986-87	19.1	10.8		50	-15.6	13.5	12.9
1987-88	20.9	13.6		39.5	16.8	12.7	16.6
Over 12 months (ua)							
1987 OCTOBER	22.5	13.6	29.0	58.3	15.8	5.7	15.3
NOVEMBER	21.5	13.9	6.9	66.0	15.2	5.2	14.7
DECEMBER	22.9	11.2	16.7	63.2	16.3	8.0	15.9
1988 JANUARY	22.5	12.4	29.3	57.0	16.6	11.0	16.3
FEBRUARY	20.6	13.2	32.3	47.8	16.0	7.7	15.6
MARCH	20.9	13.6	40.3	39.5	16.8	12.7	16.6
APRIL	19.4	13.6	32.6	41.2	16.0	9.1	15.7
MAY	18.6	13.9	36.2	34.6	16.1	4.5	15.5
JUNE	20.3	13.6	44.9	45.5	16.8	3.3	16.2
JULY	20.6	15.0	30.8	40.3	17.5	3.6	16.8
AUGUST	20.0	16.0	20.9	38.3	17.3	2.8	16.5
SEPTEMBER	22.6	18.0	0.3	42.1	18.6	3.6	17.9
Over 6 months (sa)							
1988 APRIL	14.8	15.4	0.5	47.8	12.9	0.4	12.3
MAY	16.4	14.5	0.2	39.1	14.4	3.1	13.9
JUNE	18.8	15.5	0.4	43.3	15.8	0.5	15.1
JULY	23.9	16.1	0.3	26.4	20.2	-1.9	19.0
AUGUST	24.8	17.0	0.3	32.7	20.6	-0.4	19.5
SEPTEMBER	25.4	15.6	0.0	26.7	20.7	-4.3	19.4
CHANGES MILLION							

Monthly average³ (sa)							
1984-85	984	1034	42	-28	139	2221	2090
1985-86	1565	1207	50	-362	-118	2480	2557
1986-87	2157	938	17	-372	51	2791	2975
1987-88							
Over 1 month (sa)							
1988 APRIL	3132	1615	-110	-1161	3476	-788	2688
MAY	1217	1731	214	-238	2924	238	3162
JUNE	4731	1914	75	-673	6047	55	6102
JULY	5503	1585	58	-39	7107	9	7116
AUGUST	1725	2211	-200	143	3879	-56	3823
SEPTEMBER	6752	1086	-11	-204	7623	197	7820

¹ Net in flow including Term shares and SAYE.

² Treasury bills, bank bills, LA temporary debt, CID's and some national savings accounts.
³ March on March.

TABLE

RETAIL DEPOSITS

	BANKS	BUILDING ¹ SOCIETIES	NATIONAL SAVINGS ²	TOTAL
% CHANGES				
----- Financial years ³ (ua)				
1984-85	7.1	15.1	11.9	12.0
1985-86	11.6	15.3	7.5	12.9
1986-87	17.2	10.8	10.8	12.7
1987-88	13.6	13.0	6.1	11.2
Over 12 months (ua)				
1987 OCTOBER	13.6	10.2	8.2	10.9
NOVEMBER	13.9	11.1	7.4	11.3
DECEMBER	11.2	11.6	7.2	10.5
1988 JANUARY	12.4	12.1	6.8	10.9
FEBRUARY	13.2	12.6	6.4	11.1
MARCH	13.6	13.0	6.1	11.2
APRIL	13.6	13.6	5.9	11.4
MAY	13.9	14.2	5.5	11.7
JUNE	13.6	14.4	5.1	11.6
JULY	15.0	15.0	5.0	12.2
AUGUST	16.0	15.3	4.7	12.6
SEPTEMBER	18.0	15.7	4.3	13.5
Over 6 months (sa)				
1988 APRIL	10	15.4	6.1	12
MAY	12.9	14.5	6.3	12.5
JUNE	21.4	15.5	6.1	15
JULY	18.7	16.1	5.3	16.3
AUGUST	19.5	17.0	4.6	15.9
SEPTEMBER	23.2	15.6	3.4	15.8
CHANGES MILLION				
----- Monthly average ³ (sa)				
1984-85	42	1034	683	1759
1985-86	255	1207	1093	2555
1986-87	871	938	266	2075
1987-88				
Over 1 month (sa)				
1988 APRIL	404	1615	165	2184
MAY	737	1731	67	2535
JUNE	2097	1914	160	4171
JULY	1544	1585	175	3304
AUGUST	1238	2211	-23	3426
SEPTEMBER	3121	1086	-46	4161

NOTES

- 1 Total retail funds, including terms shares and SAYE.
> Total inflows.
3 March on March.

TABLE 22

BREAKDOWN OF BANK LENDING BY INSTRUMENT

	ADVANCES	COMMERCIAL BILLS	MEMO ITEM: BILL LEAK	INVESTMENTS ¹	OTHER ²	TOTAL (u/a)	TOTAL (s/a)	
<u>Monthly Average³</u>								
1983/84	979	n/a	n/a	n/a	n/a	1075	1075	
1984/85	1150	n/a	n/a	n/a	n/a	1378	1378	
1985/86	1490	n/a	n/a	n/a	n/a	1747	1747	
1986/87	2045	n/a	n/a	n/a	n/a	2537	2537	
1987/88	3145	-129	(36)	130	75	3221	3195	
<u>Monthly Changes</u>								
1987	August	2791	-1544	(115)	119	-232	1134	2633
	September	5378	12	(-150)	-19	148	5519	4329
	October	2734	-489	(278)	139	581	2965	2924
	November	2578	819	(-497)	235	-327	3305	3278
	December	3433	1545	(-150)	120	371	5469	5001
	January	2597	2482	(-310)	-195	215	5099	5596
	February	2323	397	(-99)	-35	-225	2460	2555
	March	5739	-509	(445)	286	351	5867	4752
	April	4987	-499	(-366)	-50	-133	4305	6014
1988	May	2905	118	(535)	-31	127	3119	3136
	June	8118	-1515	(235)	377	302	7282	6202
	July	5459	1007	(32)	267	-509	6224	6452
	August	3085	-1178	(-80)	-273	12	1646	3149
	September	7321	-726	(99)	86	463	7144	5911

¹Investment by banks in private sector.

²Market loans, shipbuilding repos, CD's and time deposits of building societies and commercial paper.

FUNDING : FINANCIAL YEAR 1988/89

31/10/88

£ million

FORECAST	OUTTURN	RESIDUAL
-----	-----	-----
Financial	April -	Oct 88
Year 88/89	Sept 88	- Mar 89

PSBR AND FUNDING TARGET

1 PSBR excl asset sales	-5800	1192	-6992
2 Asset sales (sales-)	-6000	-4937	-1063
	-----	-----	-----
3 PSBR	-11800	-3745	-8055 #

FINANCED BY:

4 OPS debt sales to M4ps (sales-)	1000	294	706
5 National Savings (sales-)	-1900	-625	-1275 * -213
6 CTDs sales to M4ps (sales-)	750	-114	864
7 Treasury bills etc M4ps (sales-)	0	271	-271
8 Intervention (reserves inc+)	0	1626	-1626
9 Public sector externals excl intervention and gilts (inc-)	0	156	-156
	-----	-----	-----
10 NET GILT SALES TO M4PS & OVERSEAS NEEDED FOR FULL FUND (sales+)	-11950	-2137	
11 Adjustment for 1987/88 underfund	400		
12 OVER(-)/UNDER(+) FUNDING	-400	-428	28

GILT SALES:

13 Net purchases by M4ps and overseas (purchases+)	-11550	-1709	-9841
14 Net purchases by banks/b socs & other public sector (purchases+)	-1200	-1203	3
15 Maturities	8300	3707	4593
	-----	-----	-----
16 GROSS OFFICIAL SALES	-4450	795	-5245
17 Monthly average gross gilt sales	-371	133	-874

* average per month
Relationship between lines:

3 = 1 + 2
10 = 3+4+5+6+7+8+9
12 = 10 + 11 - 13
16 = 13 + 14 + 15

consistent with internal Autumn forecast

Table 24:- BORROWING BY PRIVATE SECTOR EXCLUDING BUILDING SOCIETIES (million)

BANK/BUILDING SOC. STERLING BORROWING				OTHER STERLING BORROWING				ALL BORROWING				
	Banks	B Soc	TOTAL	Sterling Commercial Paper(*)	Ordinary Shares (*)	Pref & Euro- Bonds (*)	Euro- Sterl (**)	TOTAL	Sterling	Foreign Currency	TOTAL	
Change in Quarter												
1984	Q1	5141	3007	8148		163	44	117	324	8472	1102	9574
	Q2	2781	4076	6857		429	75	30	534	7391	808	8199
	Q3	3285	4087	7372		288	59	298	645	8017	1047	9064
	Q4	4535	3402	7937		249	73	410	732	8669	1948	10617
1985	Q1	7093	3189	10282		924	170	235	1329	11611	3225	14836
	Q2	4158	3748	7906		1092	327	230	1649	9555	1382	10937
	Q3	4148	3561	7709		873	274	193	1340	9049	-806	8243
	Q4	4294	4235	8529		525	89	445	1059	9588	939	10527
1986	Q1	7157	3967	11124	0	471	209	750	1430	12554	2362	14916
	Q2	5189	5220	10409	0	1369	344	605	2318	12727	1575	14302
	Q3	4877	5738	10615	23	1431	290	448	2192	12807	3688	16495
	Q4	10138	4782	14920	68	2338	-52	281	2635	17555	623	18178
1987	Q1	7147	3619	10766	416	1553	-782	1546	2733	13499	7142	20641
	Q2	8692	4240	12932	597	2259	352	990	4252	17184	4733	21917
	Q3	6452	2587	9039	259	5950	732	931	7872	16911	-1152	15759
	Q4	11739	3926	15665	-167	3735	423	591	4582	20247	-178	20069
1988	Q1	13426	4980	18406	909	370	-115	1600	2764	21170	1819	22989
	Q2	14706	7462	22168	579	996	331	1948	3854	26022	1024	27046
	Q3	15014	7414	22428	166	1057	642	1093	2958	25386	3158	28544
Average per quarter												
1984		3936	3643	7579	0	282	63	214	559	8137	1226	9364
1985		4923	3683	8607	0	854	215	276	1344	9951	1185	11136
1986		6840	4927	11767	23	1402	198	521	2144	13911	2062	15973
1987		8508	3593	12101	276	3374	181	1015	4846	16960	2636	19597
1988		14382	6619	21001	551	808	286	1547	3192	24193	2000	26193
Change in Month												
1987	SEPT	5519	1318	6837	158	2020	160	310	2648	9485	36	9521
	OCTOBER	2965	1510	4475	122	2535	195	256	3108	7583	3421	11004
	NOVEMBER	3305	1441	4746	-43	975	55	335	1322	6068	-1528	4540
	DECEMBER	5469	975	6444	-246	225	173	0	152	6596	-2069	4527
	JANUARY	5099	1473	6572	379	48	41	625	1093	7665	727	8392
	FEBRUARY	2460	1396	3856	339	219	123	590	1271	5127	-969	4158
1988	MARCH	5867	2111	7978	191	103	-279	385	400	8378	2061	10439
	APRIL	4305	2050	6355	146	235	13	450	844	7199	-2428	4771
	MAY	3119	2495	5614	431	528	150	780	1889	7503	1391	8894
	JUNE	7282	2917	10199	2	233	168	718	1121	11320	2671	13991
	JULY	6224	2739	8963	68	296	202	183	749	9712	-144	9568
	AUGUST	1646	2663	4309	8	313	241	315	877	5186	-325	4861
	SEPT	7144	2012	9156	90	448	247	595	1380	10536	3627	14163
	OCTOBER					1124	405	720				

* UK ICC's only

** Announced issues by UK ICCs and OFIs

** Gross issues announced by UK ICC's and OFI's

Table 25:- FINANCE OF U.K. INDUSTRIAL AND COMMERCIAL COMPANIES AND BUILDING SOCIETIES (million)

s)	BANK BORROWING				OTHER BORROWING					ALL BORROWING		
	Sterling		Foreign	TOTAL	Sterling Commercial Paper	Ordinary Shares	Pref & Bonds	Euro-Sterling(*)		TOTAL	TOTAL (o/w ICC	
	ICC's	BSOC's	Currency					ICC's	BSOC's			
Change in Quarter												
1984												
Q1	2905	-86	-895	1924		163	44	25	0	232	2156	2242
Q2	559	-56	-193	310		429	75	0	0	504	814	870
Q3	1219	533	-74	1678		288	59	100	0	447	2125	1592
Q4	2312	408	1433	4153		249	73	210	0	532	4685	4277
1985												
Q1	3386	6	-352	3040		924	170	235	0	1329	4369	4363
Q2	747	248	207	1202		1092	327	230	0	1649	2851	2603
Q3	229	161	1371	1761		873	274	130	600	1877	3638	2877
Q4	847	860	1377	3084		525	89	200	475	1289	4373	3038
1986												
Q1	3722	363	108	4193	0	471	209	350	935	1965	6158	4860
Q2	-414	461	108	155	0	1369	344	325	1075	3113	3268	1732
Q3	-40	1856	1128	2944	23	1431	290	231	1575	3550	6494	3063
Q4	5188	404	-21	5571	68	2338	-52	281	2632	5267	10838	7802
1987												
Q1	11134	355	2008	13497	416	1553	-782	1231	290	2708	16205	15560
Q2	631	-516	762	877	597	2259	352	655	50	3913	4790	5256
Q3	3645	397	-80	3962	259	5950	732	570	100	7611	12382	11885
Q4	4284	832	630	5746	-167	3735	423	105	0	4096	9842	9010
1988												
Q1	7008	257	2048	9313	909	370	-115	915	625	2704	12017	11135
Q2	4979	453	2106	7538	579	996	331	1000	1030	3936	11474	9991
Q3	5274	114	2434	7822	166	1057	642	643	635	3143	10965	10216
Average per quarter												
1984	1749	200	68	2016	0	282	63	84	0	429	2445	2245
1985	1302	319	651	2272	0	854	215	199	269	1536	3808	3220
1986	2114	771	331	3216	23	1402	198	297	1554	3474	6690	4364
1987	4924	267	830	6021	276	3374	181	640	147	4619	10639	10226
1988	5754	275	2196	8224	551	808	286	853	763	3261	11485	10447

Change in Month

1987	SEPTEMBER	158	2020	160	210	100	2648
	OCTOBER	122	2535	195	45	0	2897
	NOVEMBER	-43	975	55	60	0	1047
	DECEMBER	-246	225	173	0	0	152
	JANUARY	379	48	41	450	50	968
	FEBRUARY	339	219	123	355	150	1186
1988	MARCH	191	103	-279	110	425	550
	APRIL	146	235	13	150	150	694
	MAY	431	528	150	530	275	1914
	JUNE	2	233	168	320	605	1328
	JULY	68	296	202	48	360	974
	AUGUST	8	313	188	0	200	709
	SEPTEMBER	90	448	252	595	75	1460
	OCTOBER		1124	306	720	100	

* Gross Issues announced by U.K. ICC's and Building Societies

NOTE: Bank borrowing figures include monetary sector holdings of 'Other Borrowing' instruments, giving rise to some double counting in the 'All Borrowing' figures.

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TABLE 26

M0 FORECAST, 1988-89

Note: Forecast assumes unchanged base rates from
 ---- current levels (12 per cent)

	Levels (£ million)		6 month a.r. (%)		seasonally adjusted 12 month % growth rates	
	Notes & Coin	M0	Notes & Coin	M0	Notes & Coin	M0
	-----		-----		-----	
Actual -----						
1987-88 *	15371	15553			5.0	4.9
1988-89						
April	15826	16055	4.8	5.1	6.1	6.2
May	15954	16132	5.6	5.5	6.5	6.2
June	16143	16317	6.3	6.0	7.1	7.3
July	16271	16459	8.5	8.5	7.3	6.9
August	16461	16617	10.5	10.8	7.9	7.6
September	16707	16871	12.5	12.4	8.7	8.4
Forecast -----						
October	16669	16855	10.9	10.2	7.8	7.6
November	16700	16892	9.6	9.6	7.6	7.5
December	16728	16920	7.4	7.5	6.8	6.8
January	16746	16938	5.9	5.9	7.2	7.2
February	16760	16952	3.7	4.1	7.0	7.4
March	16773	16965	0.8	1.1	6.5	6.6
1988-89 *	16478	16664			7.2	7.1

* average of 12 months

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TABLE 27 : BROAD AGGREGATES COUNTERPARTS AND FORECAST million

OUTTURN: SEPTEMBER 1988	M3	M4
PSER	976	976
LA and PC debt sales to NEPS (-)	51	-202
CG debt sales to NEPS (-)		
o/w Gilts	-528	-432
Treasury bills etc.	219	205
National Savings	14	13
CID's	-98	-263
Public sector external & fc finance	662	662
OVER(-)/UNDER(+) FUNDING	1296	959
Sterling lending to NEPS : nsa	7144	8923
(sa)	(5911	7696)
Banks'/B Socs' externals	-547	-928
Banks'/B Socs' NNDLs	-1478	-1489
TOTAL M3/M4	6415	7465
Monthly % growth nsa	3.1	2.2
sa	3.2	2.3
Annual % growth nsa	22.6	18.6
sa	22.4	18.1
 FORECAST: OCTOBER 1988		
PSER	-2475	-2475
LA and PC debt sales to NEPS (-)	300	250
CG debt sales to NEPS (-)		
o/w Gilts	1925	1825
Treasury bills, Other	-200	-200
National Savings	-200	-200
CID's	75	75
Public sector external & fc finance	825	825
OVER(-)/UNDER(+) FUNDING	250	100
Sterling lending to NEPS : nsa	5825	7550
(sa)	(5750	7450)
Banks'/B Socs' externals & NNDLs	-1475	-2125
TOTAL M3/M4	4600	5500
Monthly % growth nsa	2.1	1.6
sa	2.5	1.9
Annual % growth nsa	21.2	18.3
sa	21.0	17.6
BUILDING SOCIETIES: Retail inflows		2175
Wholesale inflows from NENBSPS		0
Holdings of M3 (-)		-1275

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Table 28

Broad Money forecast

	OUTTURN 1988 SEPTEMBER		FORECAST	OCTOBER
	M3	M4	M3	M4
(i) Underlying increase	6416	7446	4500	6200
(ii) Total Increase	6416	7446	4600	5500
Monthly % change	3.1	2.2	2.1	1.6
Annual % change	22.6	18.6	21.2	18.3
Annual % change expected at 1988 Budget time	20.2	16.4	20.1	16.6

TABLE 29 : MONEY MARKET ASSISTANCE

million

	Outturn	Forecast		
	SEP	OCT	NOV	DEC
A. <u>Money market influences</u>				
(i) GFR (+) excl bank deposits (+)	1281	-2113	582	-888
(ii) Reserves etc (+)	-42	1250	166	113
(iii) Notes and coin (-)	-205	568	-258	-1173
(iv) National Savings (-)	-37	-188	-135	-189
(v) CTDs (-)	82	125	50	75
(vi) Gilts (-)	-9	2265	500	600
(vii) Other Exchequer items etc	-60	0	0	0
A. TOTAL MONEY MARKET INFLUENCES (Market surplus + / shortage -)	<u>1010</u>	<u>1907</u>	<u>905</u>	<u>-1462</u>
B. <u>Money market operations</u>				
(i) Commercial bills (purchase +):				
Issue Department - outright	-820			
- repos	0			
Banking Department	165			
(ii) LA bills (purchase +)				
Issue Department	-150			
Banking Department	-13			
(iii) Treasury bills (purchase +)	-15			
(iv) Market advances	32			
(v) Treasury bill Repos	0			
(vi) Export Credit/Shipbuilding Repo	0			
(vii) Gilt Repos	0			
B. TOTAL MONEY MARKET OPERATIONS	<u>-801</u>	<u>-1907</u>	<u>-905</u>	<u>1462</u>
C. Change in bankers balances = A + B	209			
D. TOTAL ASSISTANCE OUTSTANDING	7189	5282	4377	5839
of which commercial bills				

SECRET

TABLE 30

GOVERNMENT SHARE SALES TIMING

1988/89

BSC I 2 December

1989/90

BP III 27 April

BSC II (26 September)

GILT REDEMPTIONS UP TO END FINANCIAL YEAR 1989/90

			amount outstanding (£ millions)
Financial year 1988/89			
(1988 October 25)	Treasury	9 1/2	2,050
1989 February	Treasury	11 1/2	2,250
Financial year 1989/90			
Total amount outstanding = £ 12,440 millions			
(11 redemptions)			

MONTHLY MONETARY REPORT : CHARTS

- I Exchange Rate Short Term
- II UK/US interest rate differential
- III Broad money growth
- IV Real M0 growth
- V FSBR budget profile M0
- VI FSBR budget profile M4
- VII Bank and Building Society Lending
- VIII Sterling Bond Issues
- IX Money market assistance
- X Nominal Interest Rates
- XI Yield Curve
- XII Real Yields
- XIII House prices 1
- XIV House prices 2

CHART I: EXCHANGE RATES

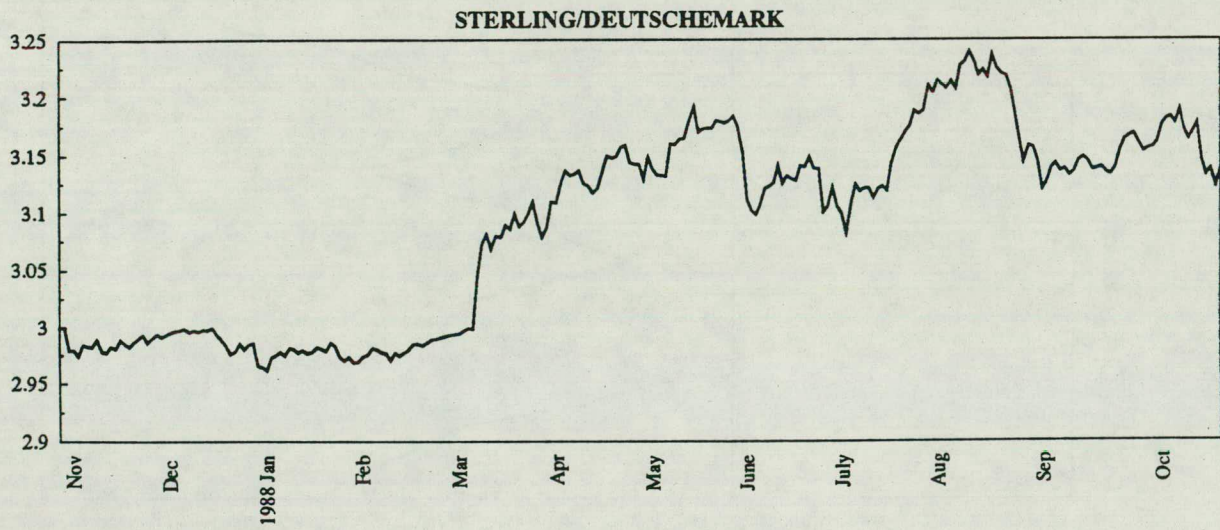
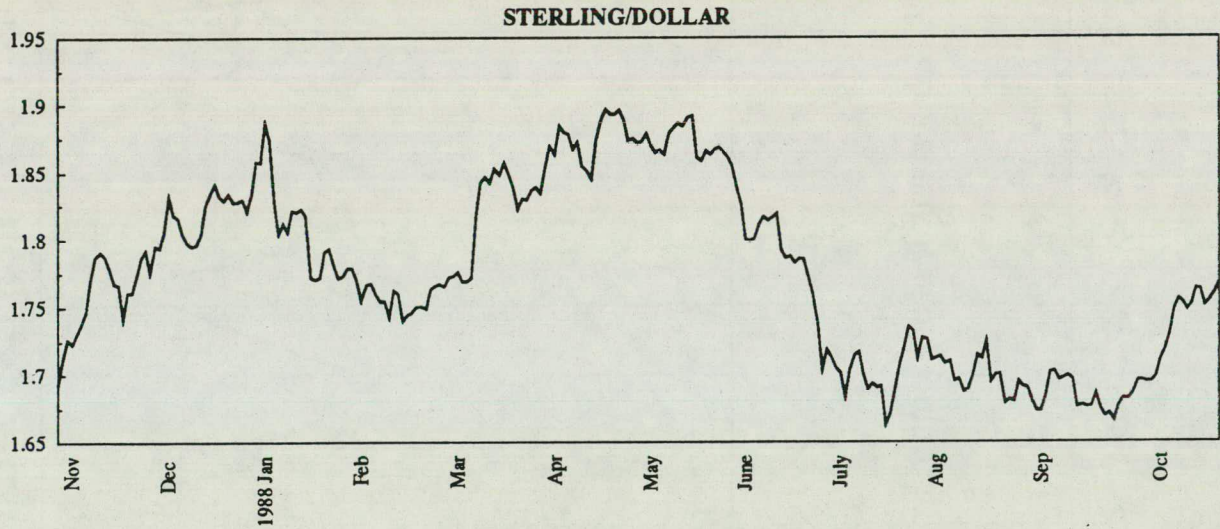
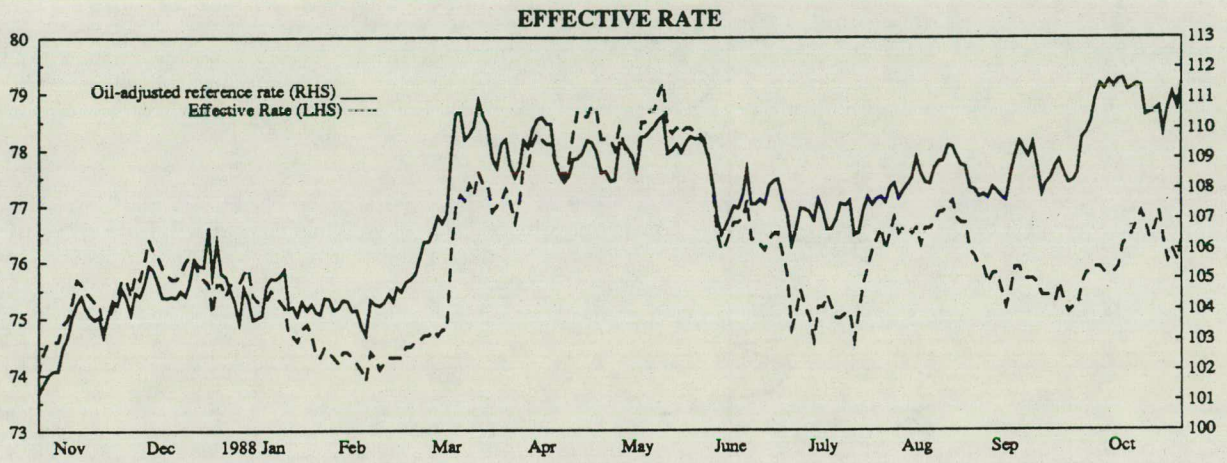


CHART II: UK/US INTEREST DIFFERENCE

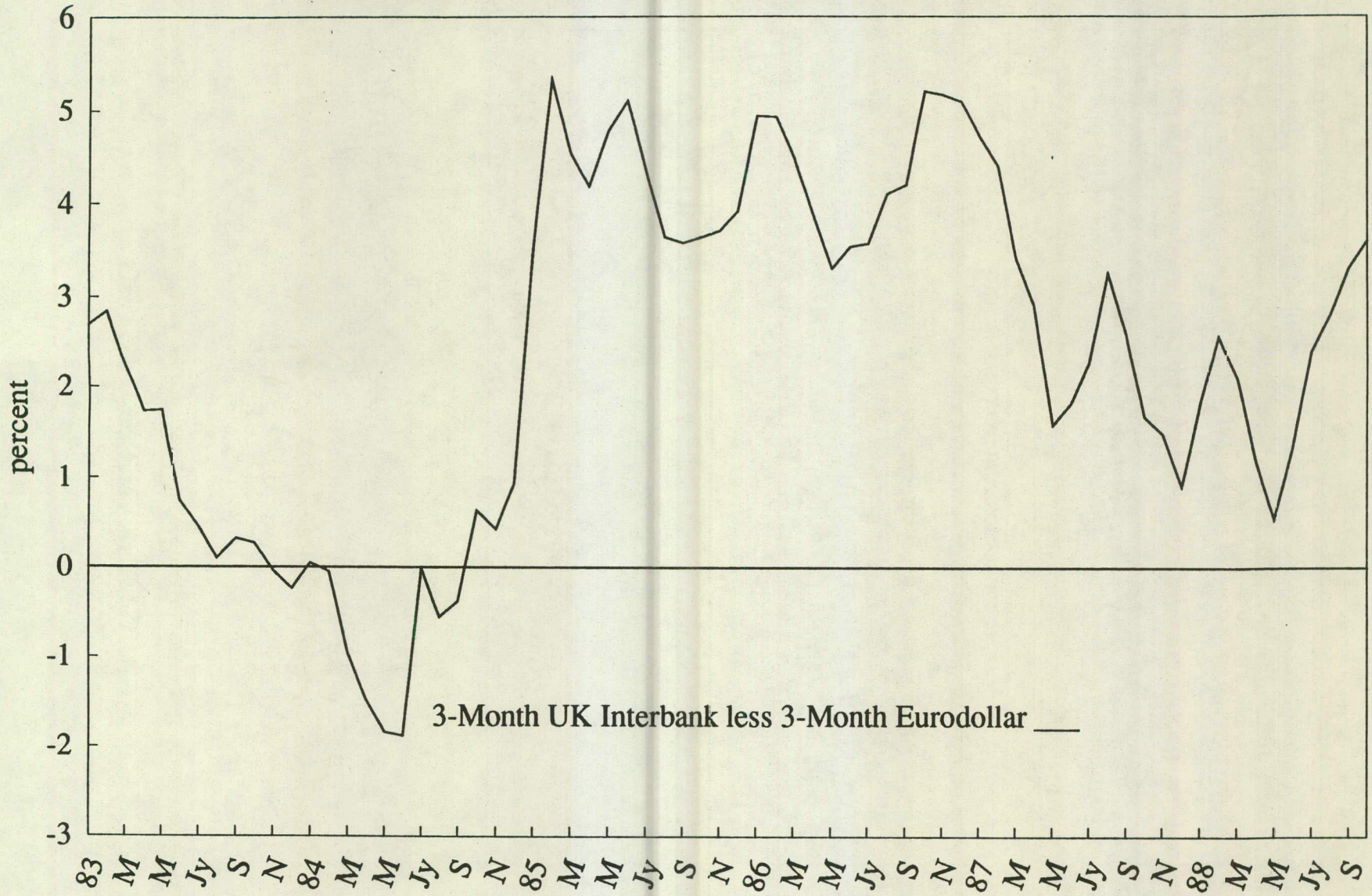


CHART III: BROAD MONEY

Annual percentage growth (ua)

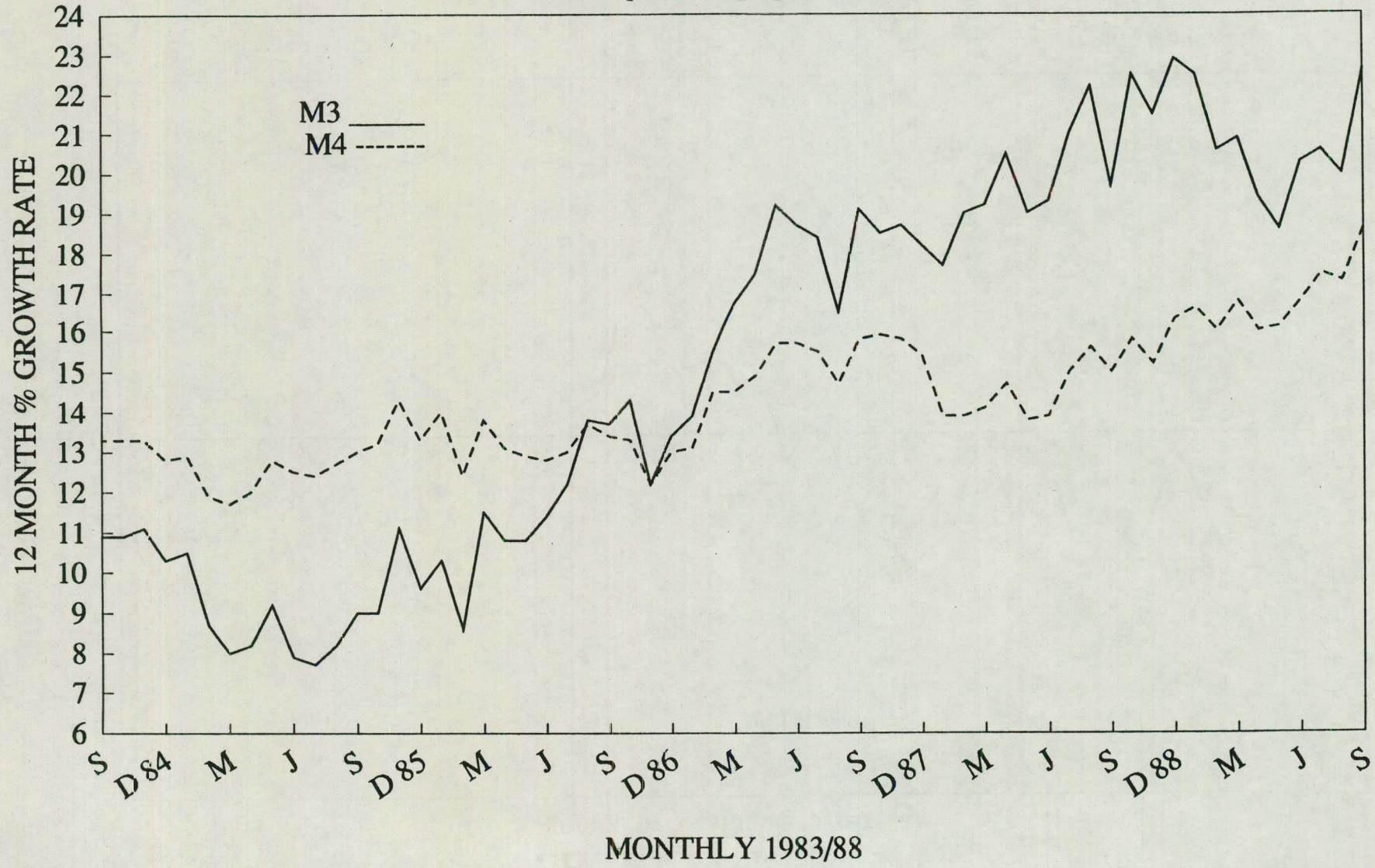
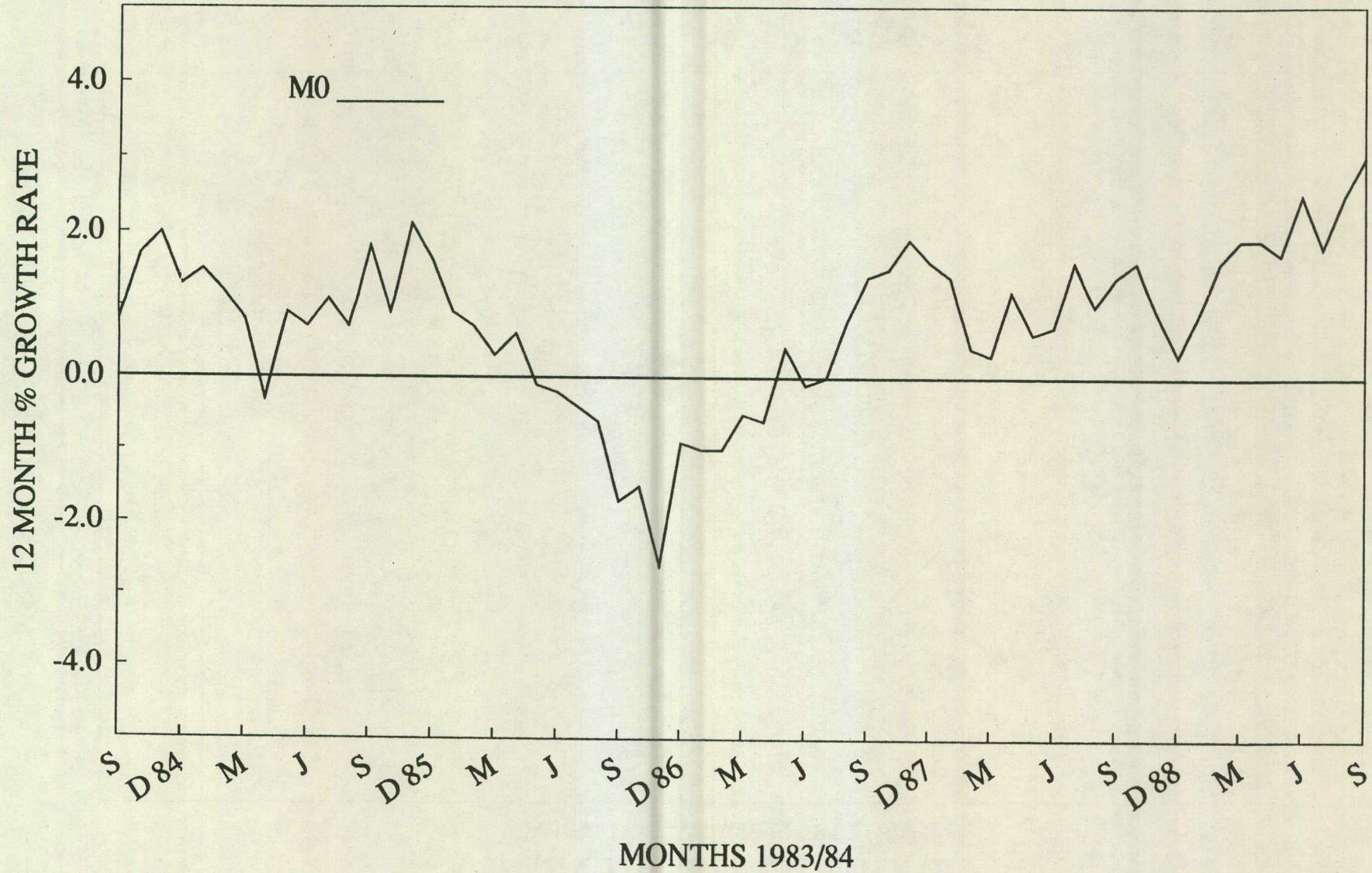
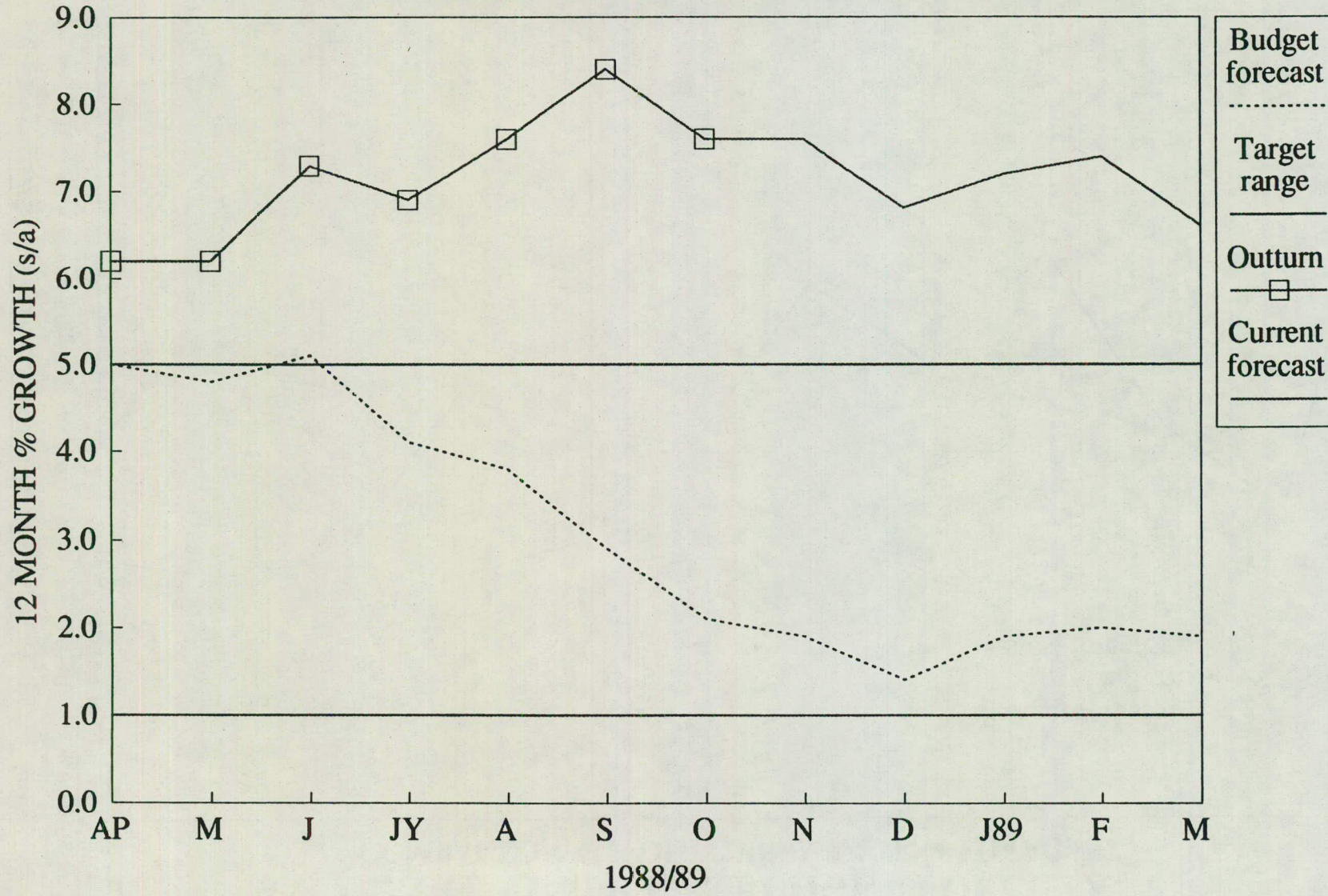


CHART IV: REAL M0
Annual percentage growth (sa)



**CHART V M0 : 1988 BUDGET FORECAST
 COMPARED WITH OUTTURN & LATEST FORECAST**



**CHART VI M4: 1988 BUDGET FORECAST
COMPARED WITH OUTTURN & LATEST FORECAST**

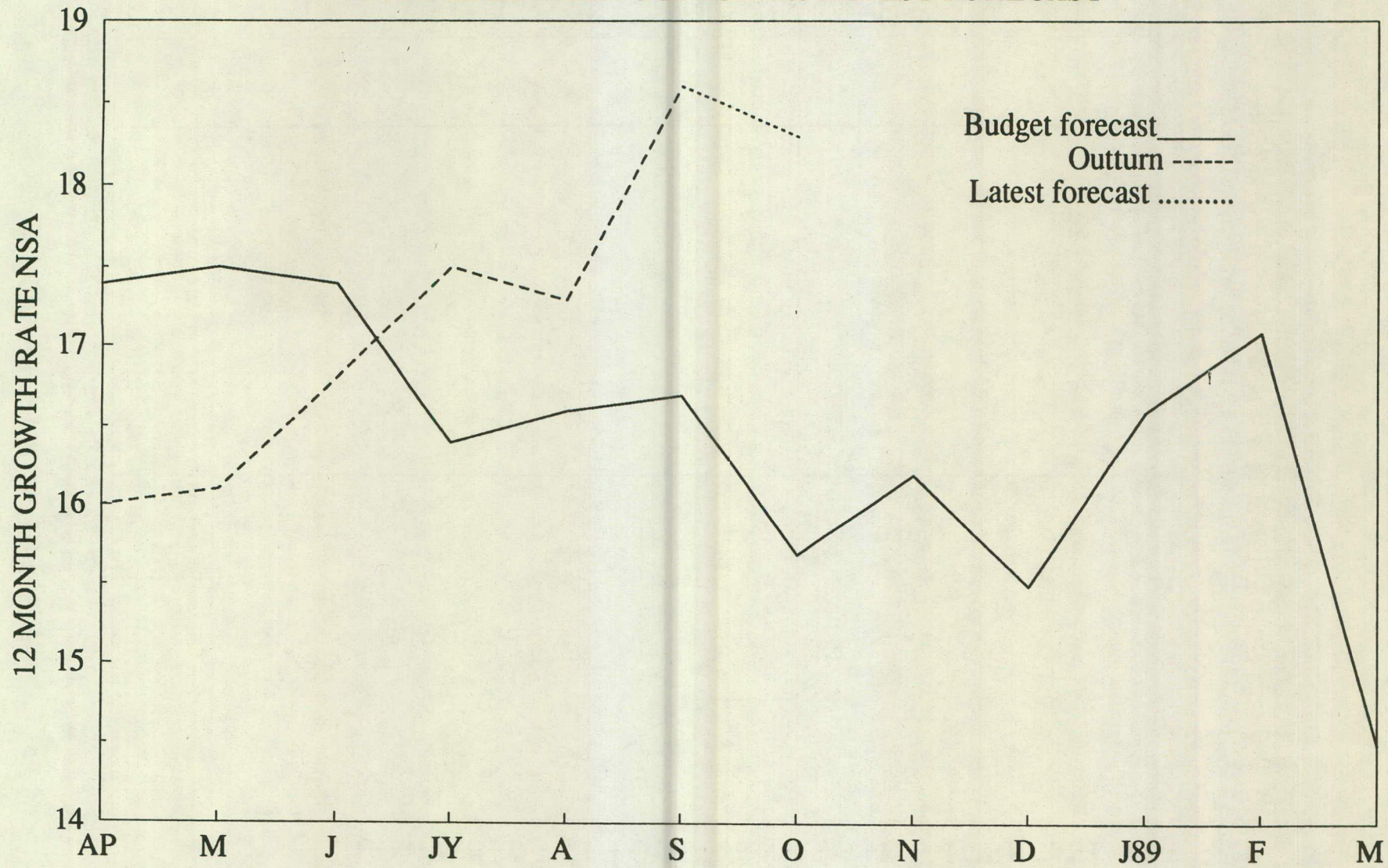


CHART VII: BANK & BUILDING SOCIETY LENDING

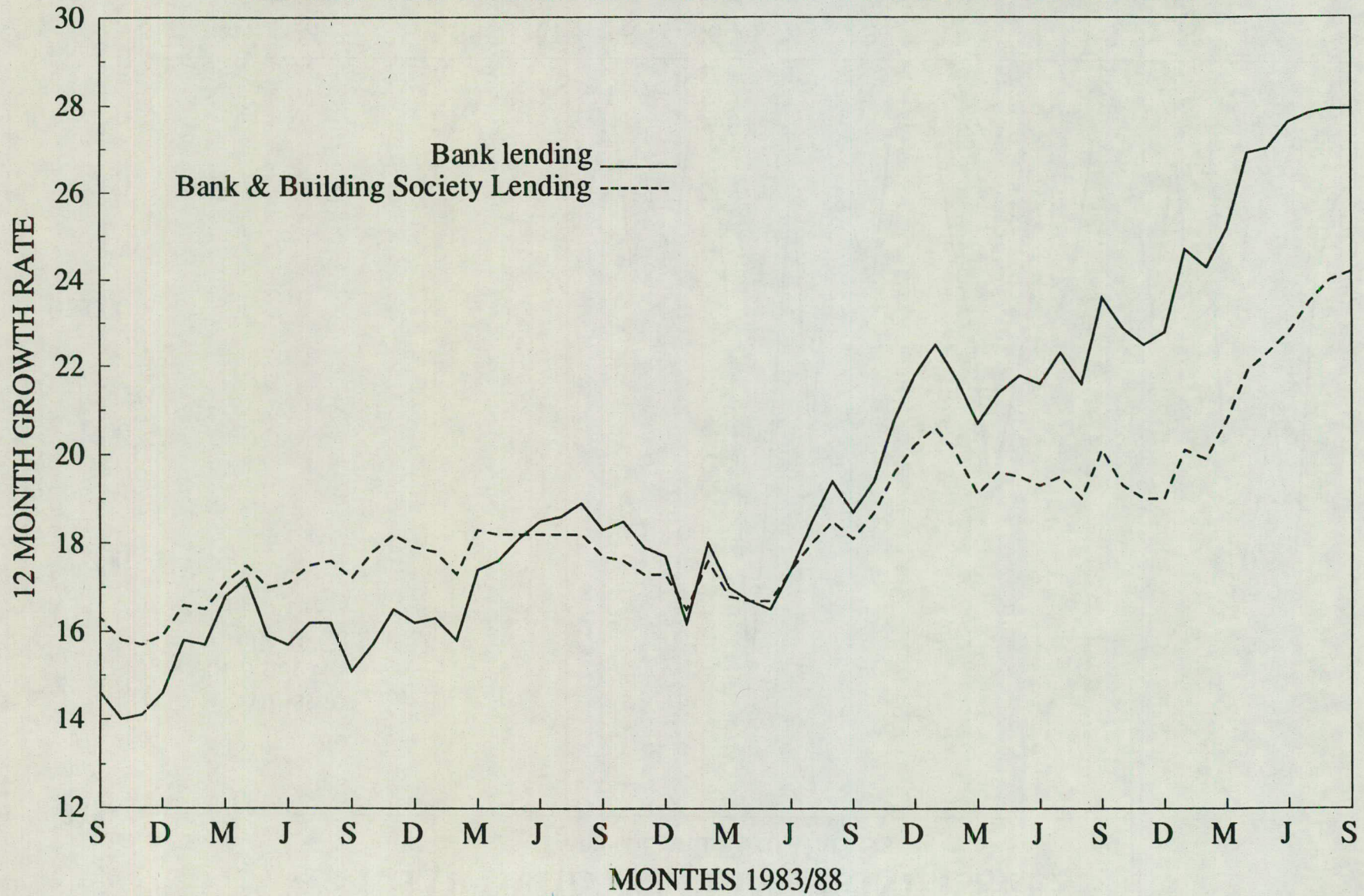


CHART VIII: STERLING BOND ISSUES
(Domestic and Euro Markets)

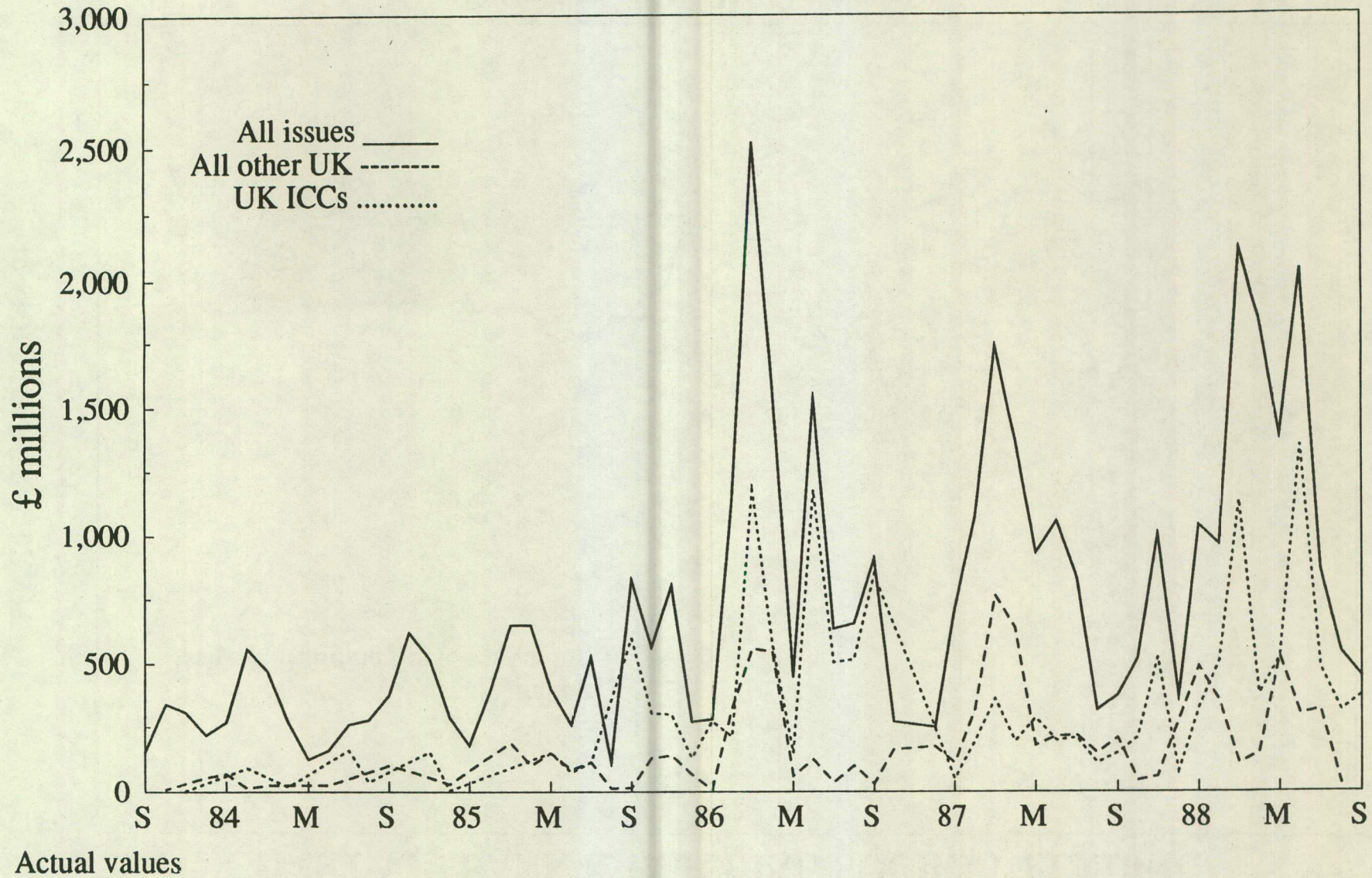


CHART IX: MONEY MARKET ASSISTANCE

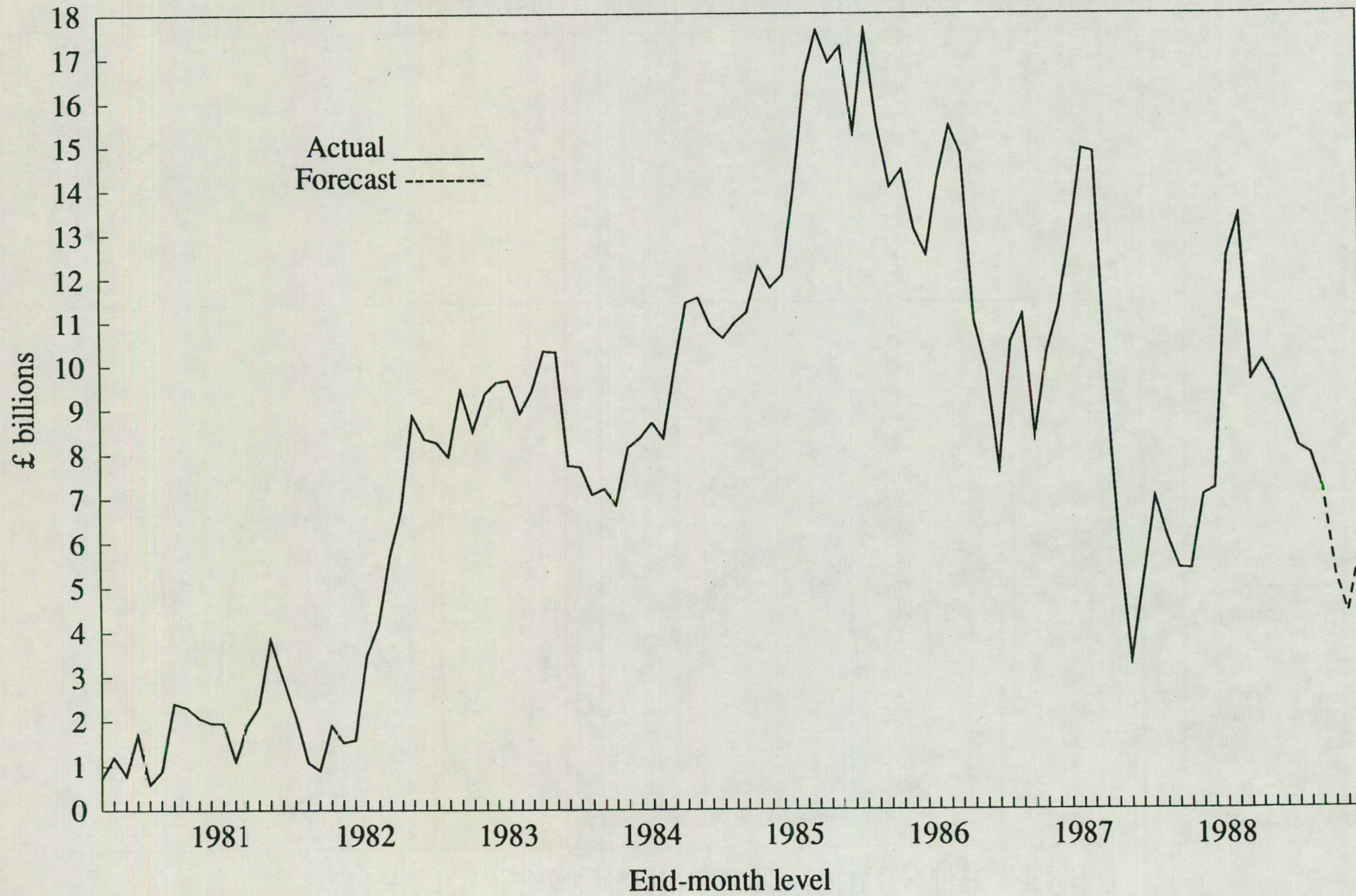


CHART X: NOMINAL INTEREST RATES

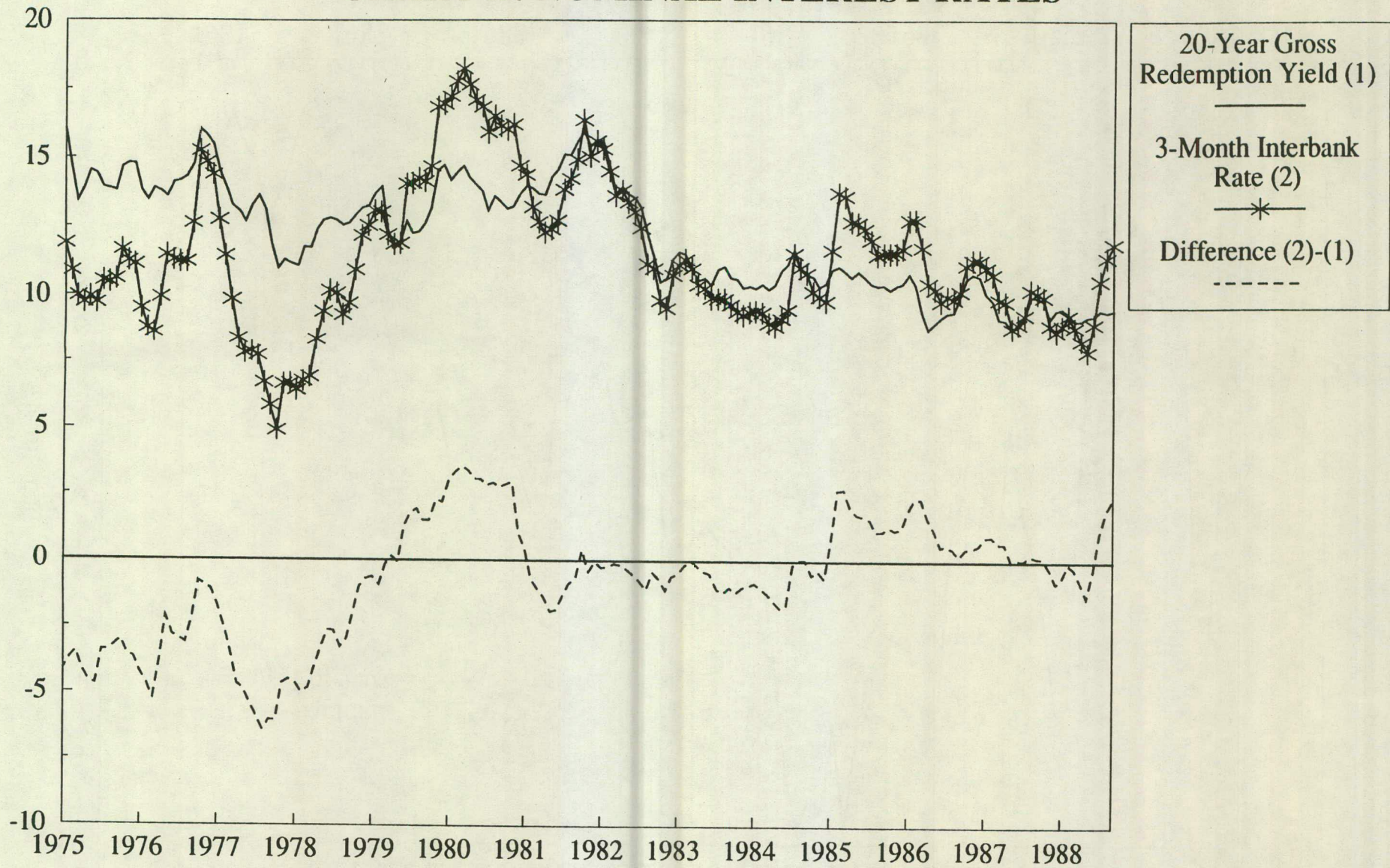


CHART XI

Per cent Time / Yield Curves of British Government Stocks

24th October 1988

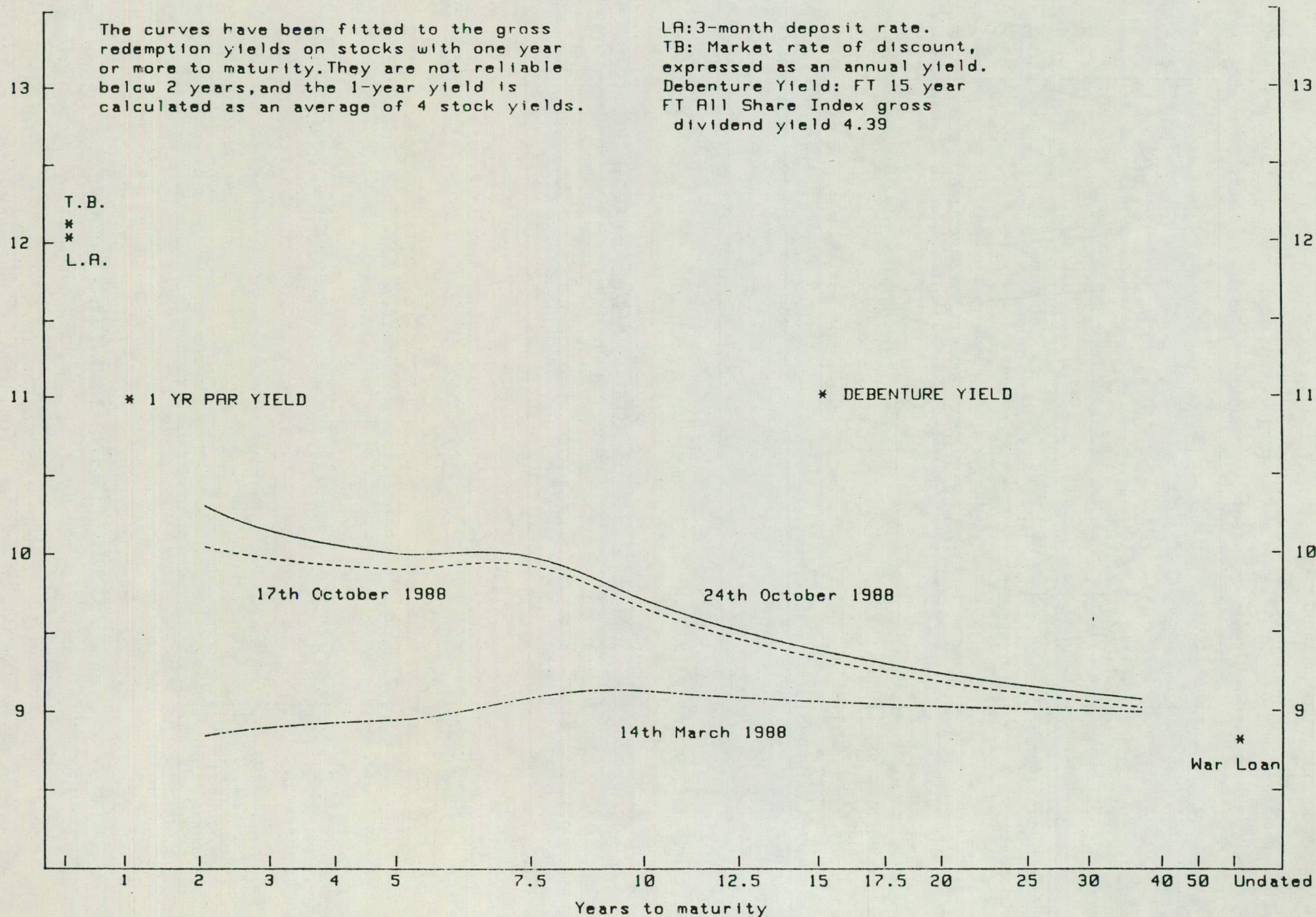
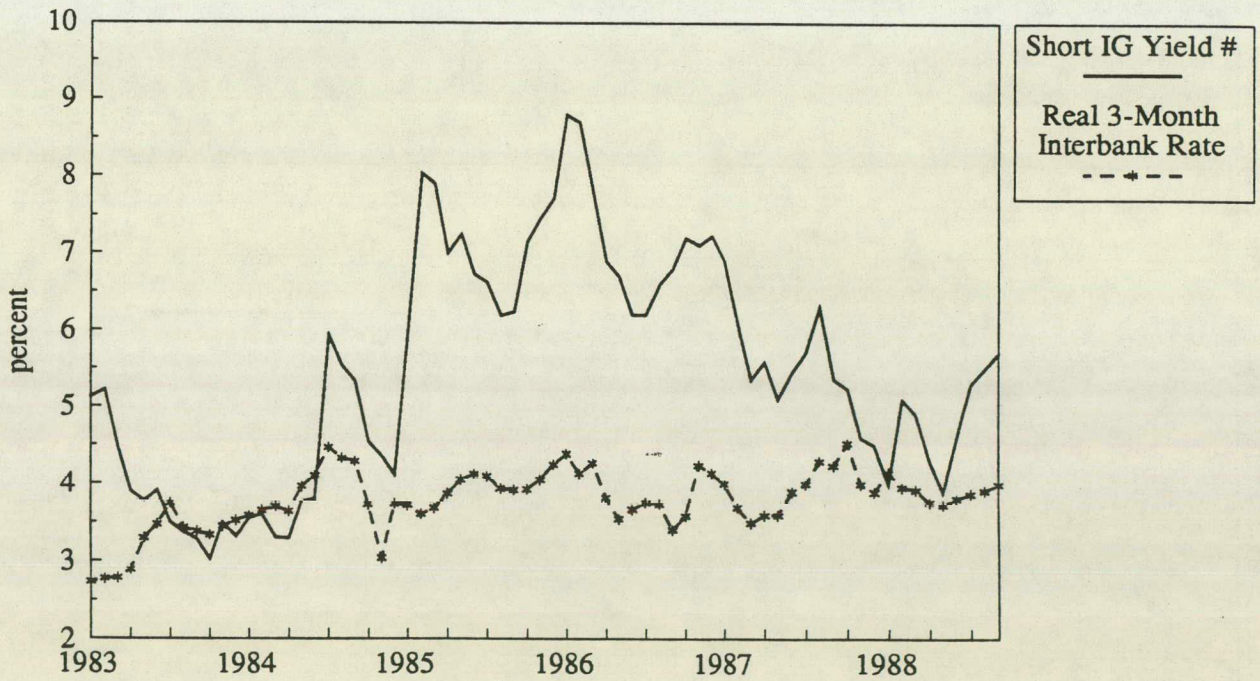
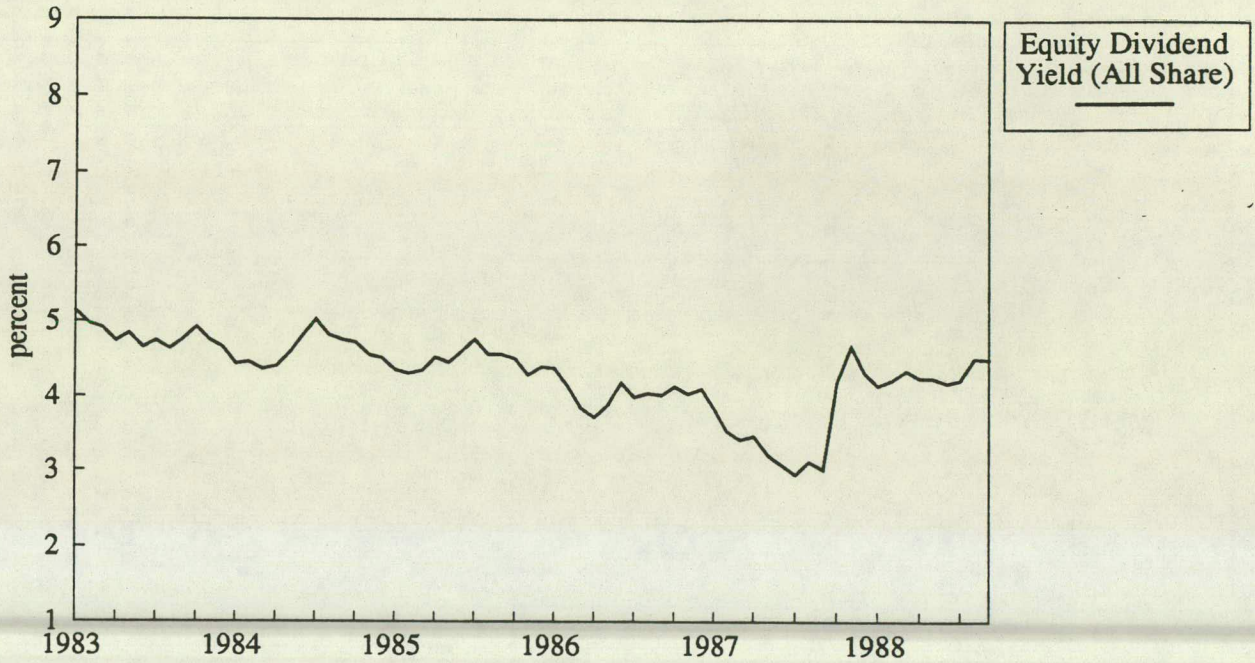


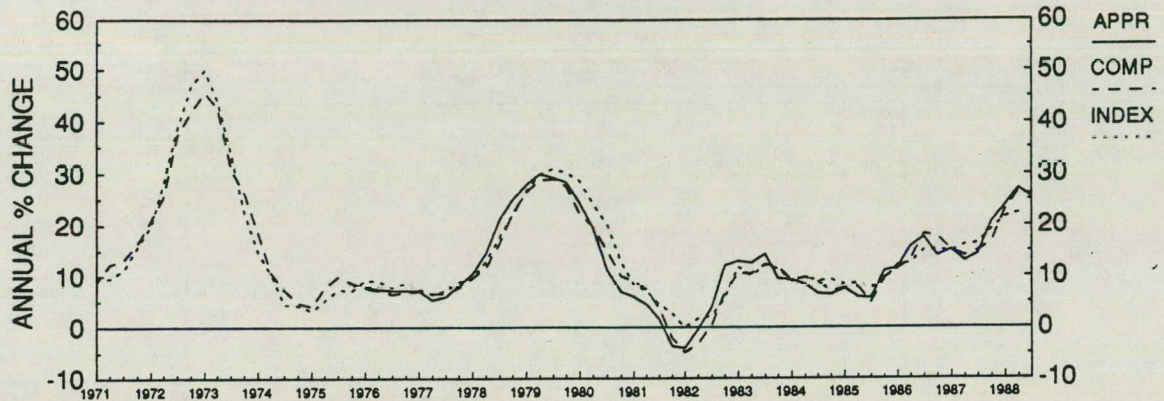
CHART XII: REAL YIELDS



given projected annual inflation of 5%

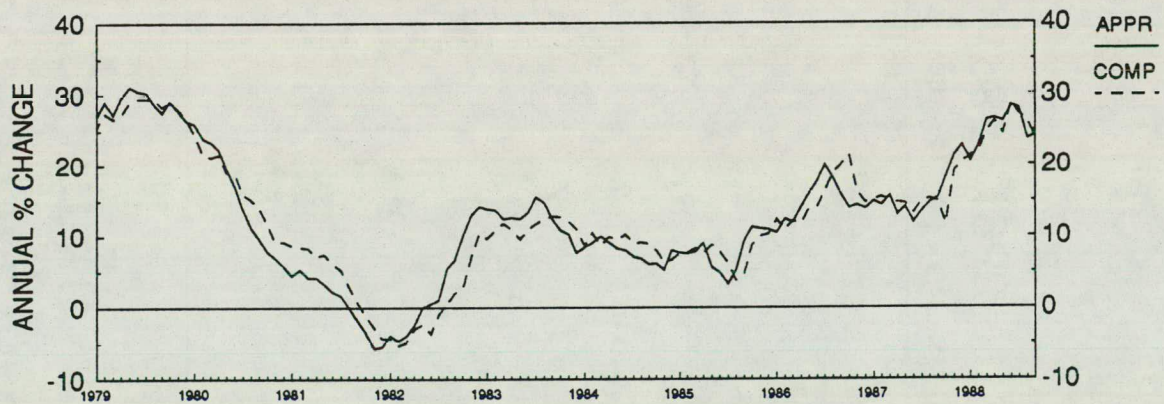
CHART XIII: HOUSE PRICES

QUARTERLY HOUSE PRICES



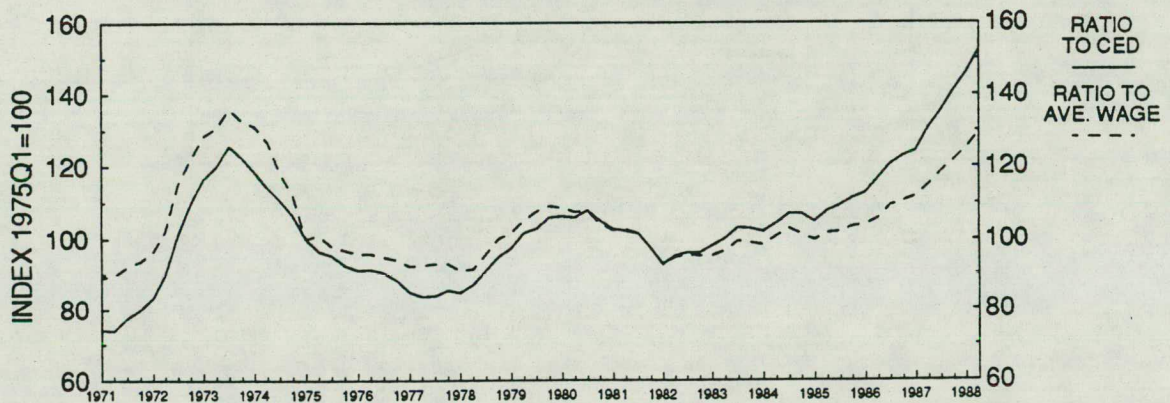
APPR = AVERAGE B. SOC. MORTGAGE AT APPROVAL
 COMP = AVERAGE B. SOC. MORTGAGE AT COMPLETION
 INDEX = MIX-ADJUSTED HOUSE PRICE INDEX

MONTHLY HOUSE PRICES



APPR = MORTGAGE APPROVAL STAGE (ALL HOUSES)
 COMP = MORTGAGE COMPLETION STAGE (ALL HOUSES)

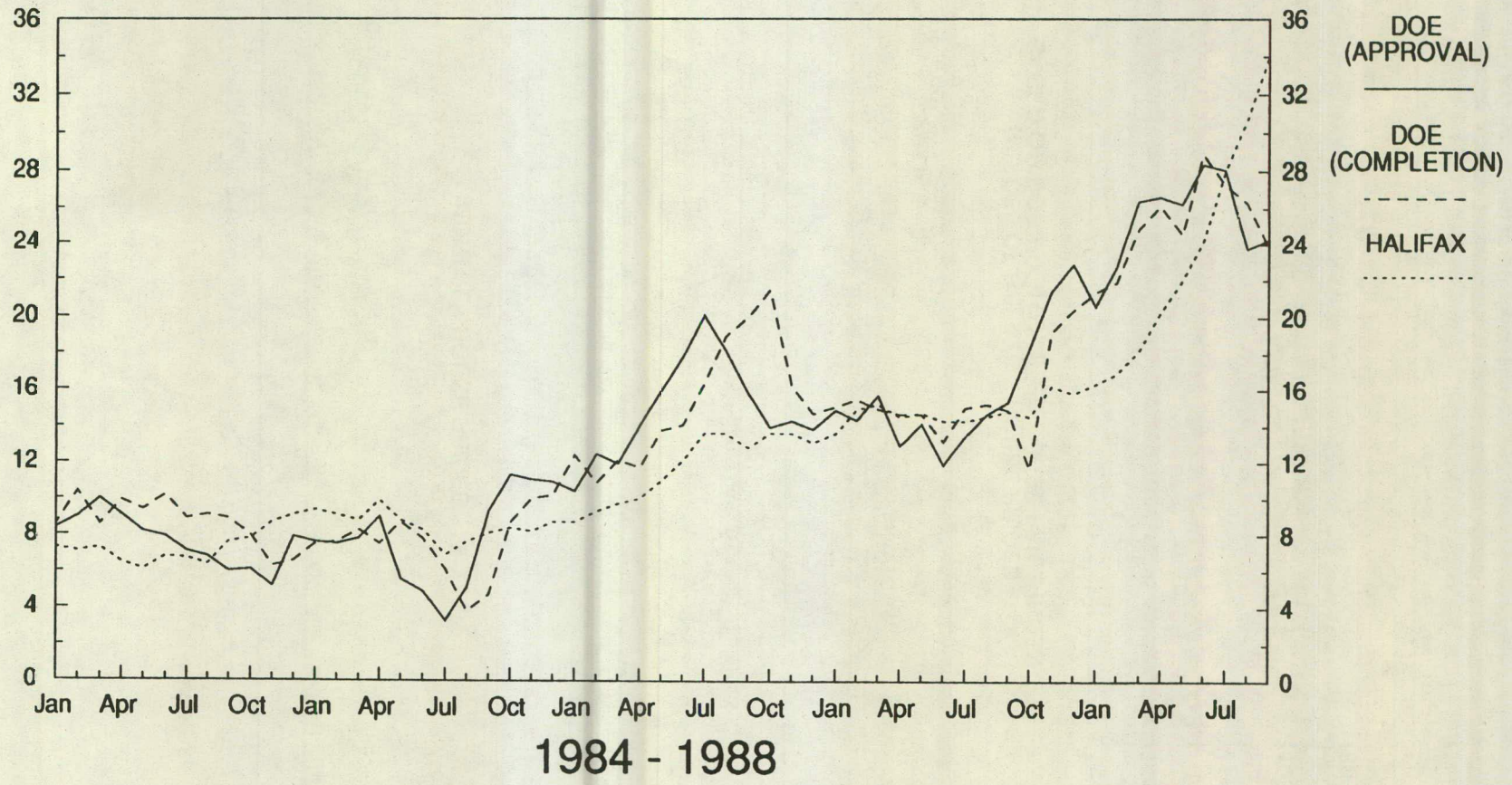
INDICES OF RELATIVE HOUSE PRICES BASED ON DOE MIX ADJUSTED HOUSE PRICE INDEX



RATIO OF HOUSE PRICES TO THE CE DEFLATOR
 RATIO OF HOUSE PRICES TO AVERAGE WAGES AND SALARIES

ANNUAL HOUSE PRICE INFLATION : 2

CHART XIV



CONFIDENTIAL

FROM: J W GRICE

DATE: 16 November 1988

CHANCELLOR OF THE EXCHEQUER

cc Economic Secretary
Sir P Middleton
Sir T Burns
Sir G Littler
Mr Scholar
Mr Sedgwick
Mr Odling-Smee
Mr Peretz (o/r)
Mr Mowl
Mr Gieve
Miss O'Mara
Mr O'Donnell
Mr Bush
Mr Brooks
Ms Ryding
Ms Wright
File: MAMC C6

**PRESENTATION OF THE MONETARY STATISTICS FOLLOWING
THE HIBBERT COMMITTEE REPORT**

Following your response to my submission of 1 November, the Bank have redrafted their Press Release recording their response to the Hibbert Committee Report. We think it is now fully in line with your decision, but you may like to see a copy.

2. We think that the description of the new consultative arrangements, noted in the new third paragraph of "The Bank's Response" section is too much in terms of the three separate bodies: Bank, Treasury and CSO. But this can be put right with a little minor redrafting, which we will be asking the Bank to make.

3. The Bank are intending to issue the Press Release on the 29 November with the full October money figures, as you agreed.

JWG

J W GRICE

Seasonal adjustment of the monetary aggregates

In December 1986 a small group chaired by the head of the Government Statistical Service was set up to review the seasonality and method of seasonal adjustment of the monetary aggregates⁽¹⁾. This group included independent representatives as well as representatives of the Bank and the Treasury. The group, which came to be known as the Working Party on Seasonal Adjustment of the Monetary Aggregates, has now completed its work. Its findings are set out in a report (Report of the Working Party on Seasonal Adjustment of the Monetary Aggregates, Central Statistical Office, 8 September 1988, obtainable from the CSO at Great George Street, London SW1P 3AQ).

The Bank, the Treasury and the Central Statistical Office have now considered the working party's report. A number of recommendations were made. This note sets these out and explains how the Bank proposes to respond to them. Technical terms used in this note are explained in the glossary on page ●●● at the end.

The working party's terms of reference

The terms of reference of the working party were as follows:

- 1 To review the extent of seasonality in the monetary aggregates.
- 2 To examine the technical merits of different available methods of seasonal adjustment of the aggregates, taking into account:
 - (a) The need to provide maximum assistance in interpreting the aggregates.
 - (b) The treatment of non-seasonal influences that affect the underlying trend.
 - (c) Any significant differences in the resource costs between one method and another.
 - (d) The need to ensure consistency among different seasonally adjusted series.
 - (e) The stability of the seasonal factors produced by the different methods.
- 3 To consider whether any changes should be made, and to make recommendations.

The working party's conclusions

The working party reached the following conclusions:

- (a) The broader monetary aggregates display less seasonality than many other typical economic series. Nevertheless, they have a seasonal component comparable in strength with that in other series which are published in adjusted form.

(1) See the December 1986 Bulletin, page 522.

- (b) External users of the data feel that they would need adjustments to cope with the seasonality. If no official series were produced, users would have to invent their own. The outcome would be confusing and inefficient.
- (c) Revisions to the seasonal factors for the monetary aggregates have been much greater than for non-monetary series, compared with the respective levels of the series. Nevertheless, the observed instability of the seasonal adjustments is no larger, in proportion to the irregularity of the aggregates, than for other non-monetary data. There is no evidence that the revisions are due to any technical deficiency of the Bank's methods.
- (d) Nevertheless, some courses are open to the Bank which might reduce revisions to seasonal factors. One is to use current updating, which would be expensive to operate globally but on the basis of other studies might be expected to reduce revisions by about 15%. Current updating of deterministic adjustments only would be less expensive but still worthwhile. A second is to minimise changes to methodology.
- (e) The choice between stochastic and deterministic adjustments should be reviewed regularly. There is now a good case for changing the bank interest adjustment to stochastic.
- (f) The Bank should continue to ensure that the seasonally adjusted flow of funds matrix is balanced.
- (g) Apart from the question of current updating, none of the issues discussed has any significant resource cost implications.

The working party's recommendations

The working party made the following recommendations:

- (a) The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix.
- (b) The Bank should review the choice of components for deterministic adjustment, with a presumption that bank interest is no longer a candidate for this method. The choice should be reviewed regularly.
- (c) The Bank should minimise changes in methodology. This means that the potentially beneficial effects of any proposed change need to be weighed carefully against the disruption which users are liable to suffer in consequence. Before making any major change, the Bank should consult with the CSO and the Treasury to ascertain the balance of advantage.
- (d) The Bank should use current updating of deterministic adjustments wherever feasible. The restriction on changing previously published

seasonal adjustments should be relaxed where this will improve the effectiveness of current updating.

- (e) The CSO should review the policy of updating seasonal adjustments, considering in particular the practicability of using current updating for stochastic adjustments. The Bank and the CSO should discuss the applicability of this review to the monetary aggregates.

The Bank's response

The Bank accepts the working party's recommendations in full. The way in which the Bank will respond to these recommendations is set out below.

Bank

The procedures by which the Bank consults with the CSO and the Treasury about changes in methodology have been put on a more formal basis. An annual exercise to update the seasonal adjustments in the light of the latest year's new data is currently under way in the Bank, and arrangements have been made for the CSO and the Treasury to be consulted about proposed changes (recommendation (c)). One change which the Bank has already proposed, and which the CSO and the Treasury have accepted, is that bank interest should no longer be subject to deterministic adjustments (recommendation (b)). The Bank does not propose at this stage to make any other changes to components subject to deterministic adjustment. Once the results of the update have been promulgated the only deterministic adjustments will be in respect of payment of Petroleum Revenue Tax (see the June 1981 *Bulletin*, pages 200-201, and the June 1983 *Bulletin*, page 257), and in respect of a change in 1986/87 in the timing of payments of Composite Rate Tax by building societies.

Move this paragraph to the beginning

In response to recommendation (a), the Bank will continue to publish a seasonally adjusted quarterly flow of funds matrix (see Table 19 of the statistical annex). The components and counterparts of broad money, which can be derived from the matrix accounting framework, will also be published in seasonally adjusted form. In the monthly data, however, the only counterparts to broad money to be shown in seasonally adjusted form will be the 'public sector contribution' (ie the sum of the public sector counterparts), 'sterling lending' and 'other counterparts' (ie the sum of the banks' and building societies' external and foreign currency counterparts and net non-deposit sterling liabilities).

The Bank's monthly press releases showing the monetary aggregates will ~~reflect these changes~~ be extended to show growth rates over one, three, six and twelve months ~~will be shown~~ in seasonally adjusted form. ~~As will the main counterparts to broad money.~~ These changes will take effect with the press release showing the ~~October~~ November money figures, to be published on ~~18 November~~ 20 December 1988. This change will

The CSO is to undertake the review suggested in recommendation (e). When the review is complete, the Bank will discuss its applicability to the monetary aggregates. For the time being, the Bank proposes to

respond to recommendation (d) by introducing a procedure for the current updating of deterministic adjustments. Hitherto, it has been the Bank's practice to revise seasonal adjustments only once a year, following the completion of the annual updating exercise. The last such update took place with the publication of the October 1987 figures in November 1987. In future, stochastic adjustments will be reviewed, as before, in an annual updating exercise, and promulgated in November or December each year. But deterministic adjustments will be reviewed regularly throughout the year, and if changes are thought to be appropriate they will be introduced as soon as possible. Such changes would, of course, affect not only the adjustment to the most recent month or two, but possibly those to a much longer run of earlier months as well. On past experience, it seems unlikely that it will be necessary to make such changes more than three times a year. When changes are made, they will be promulgated in the first monthly press release (*Provisional Estimates of Monetary Aggregates*, published around the 19th of each month). Tables will be provided showing the seasonally adjusted data on both the 'old' and 'new' bases for the latest month and for a run of recent months. The second monthly press release (*Monetary Statistics*, published around the end of the month) will use the same updated adjustments as the provisional press release. ~~The final~~ press release will continue to give an indication of the seasonal adjustments for the forthcoming month. It will not be possible in either of the press releases to give any indication of the reasons which gave rise to the need for an update to seasonal adjustments, except in cases where the information which gave rise to the update is already publicly available. It is proposed to introduce this new procedure once the latest annual update of seasonal adjustments has been promulgated; this is expected to occur, ~~either~~ with the publication of the ~~October figures on 18 November 1988,~~ or with the November figures on 20 December 1988.

This second

Glossary of terms

Stochastic adjustments assume that the pattern of seasonal variation in a series is stable or evolving smoothly in time, and hence may be estimated by some form of moving average of the data.

For some series it is judged that the assumptions underlying stochastic methods do not apply. Usually ~~these~~ are series for which the seasonal pattern undergoes an abrupt change, or for which the size of the seasonal effect changes with some external factor. For these series a method known as *deterministic adjustment* is used. This method treats the objective of the adjustment as being to achieve a smooth path for the adjusted series within the year. The adjusted series is therefore defined by setting each monthly value to the average of the unadjusted values. The adjustment of the current year requires forecasts of the unadjusted values for the remainder of the year. In some cases a smoothing period other than a year is appropriate; periods of six months or three months are used.

Current updating means re-running the seasonal adjustment procedure each month as new figures are included in the series, or as new forecasts become available which affect the assessment of seasonal patterns in the latest year.

The *bank interest adjustment* is a deterministic adjustment to interest-bearing bank deposits, to allow for the regular increases in bank deposits that occur when accrued interest is credited to deposit accounts. With many types of account it is the practice to credit interest at three, six or twelve-monthly intervals although monthly interest crediting is becoming more common.

A *balanced seasonally adjusted flow of funds matrix* is one in which the rows and columns of the matrix are subject to the same accounting constraints as the unadjusted matrix. For example, in Table 19.1 of the statistical annex, row 5 is the sum of rows 39 and 40, and most rows of the table sum to zero.

these

these

adjustment



MP
FROM: MISS M P WALLACE

DATE: 17 November 1988

MR GRICE

cc PS/Economic Secretary
Sir P Middleton
Sir G Littler
Sir T Burns
Mr Scholar
Mr Sedgwick
Mr Odling-Smee
Mr Peretz
Mr Mowl
Mr Gieve
Miss O'Mara
Mr O'Donnell
Mr Bush
Mr Brooks
Mrs Ryding
Ms Wright

PRESENTATION OF THE MONETARY STATISTICS FOLLOWING THE HIBBERT
COMMITTEE REPORT

The Chancellor was grateful for your minute of 16 November.

A handwritten signature in cursive script, appearing to read 'mpw'.

MOIRA WALLACE

From : D L C Peretz
Date : 23 November 1988

PPS

cc PS/Economic Secretary
Sir P Middleton
Sir T Burns
Mr Scholar
Miss O'Mara
Mr Gieve
Mrs Chaplin

MONETARY DEVELOPMENTS

The attached table may be useful background for tomorrow's meeting. It brings up to date the table in the latest monthly monetary assessment, attached to Mr Grice's minute of 4 November.

AA
When we are
looking for turning points,
we have been struck that
much more recent than
growth of 12 months.
Central bank was near
growth at last 3
months (so.).
m.

D L C PERETZ

Monetary developments since last month's report

Latest outturns available at time of:

	September Report	October Report	Latest
Monetary aggregates (12 month % growth)	(August)	(September)	(October)
M0 (sa)	7.6	8.4	7.6*
M3	20.0	22.6	19.8
M4	17.3	18.6	17.4
M5	16.5	17.9	16.6
Bank lending	27.9	28.0	28.1
Bank & building society lending	24.1	24.3	24.7
Interest rates (%)	5 October	3 November	23 November
3 month interbank	12.0	12.1	12.2
20 year gilt-edged (par yield)	9.4	9.2	9.3†
Yield gap	2.6	2.9	2.9
UK real 3 month interbank	5.8	5.4	4.8
Equity dividend yield (all share)	4.4	4.4	4.5†
IG yield (2001) assuming 5% inflation	3.9	3.5	3.7†
3 month UK interest differential with			
Germany	6.9	7.3	7.4†
US	3.5	3.5	2.8
World basket	4.6	4.7††	4.7†(est)
Exchange rate			
\$/£	1.70	1.78	1.83
Yen/£	225	221	223
DM/£	3.16	3.16	3.15
ERI	75.8	76.6	77.2
Oil adjusted ERI**	111.6	111.3	111.5
Asset prices			
FT-A Index (% pa)	-21.8	+16.4	+12.5†
FT-A Level (July 1987 peak: 1239)	947	960	950†
Halifax house index (% pa)***	30.7	34.0	34.4

* November : 7.6 (3 weeks out of 5)

** The oil adjusted ERI shows whether the joint effect of oil price and exchange rate changes has been counter-inflationary or otherwise, relative to the base period Jan 1983-Nov 1985, on the assumption that the inflationary effect of a 4 per cent rise in oil prices is exactly offset by a 1 per cent rise in the exchange rate.

*** 12 month growth rates shown are for August, September and October. One month changes: August 3.1, September 3.6, October 1.5.

† Close 22 November.

†† 1 November.

pppt
pay

FROM: S BROOKS
DATE: 25 November 1988

- 1. MR GRICE *JWG*
- 2. CHANCELLOR *25.11.88*

cc Economic Secretary
 Mr Scholar
 Mr Peretz
 Mr Gieve
 Mr O'Donnell
 Miss O'Mara
 Mr Bush
 Mr Sheath
 Mr Wheatley
 MAMC: Cb

Ch / This is useless.

PRESENTATION OF MONETARY AGGREGATES: BRIEFING FOR PRESS OFFICES

The Bank of England's press notice, announcing their response to the Hibbert Committee's report, will be published at the same time as the full money figures on Tuesday 29 November at 11.30am. We have prepared the attached briefing for use by both the Bank and Treasury press offices. The Bank has seen the draft, and is content.

2. We would be grateful for your comments on the briefing by 2.00pm on Monday 28 November, to allow time for distributing of the final version to press offices together with the briefing on the full money figures.

Alex

S Brooks

S BROOKS

This is so awful I have kept it away from Ch. Someone sensible needs to look at it first

--- eg you - or me if you insist!

mpw.

SEASONAL ADJUSTMENT OF THE MONETARY AGGREGATESFactual

1. The Bank of England is to publish a Press Release recording its response to the report of the Working Party on Seasonal Adjustment of Monetary Aggregates (The "Hibbert Report"). This will accompany the full money figures for October, published on 29 November. The Press Release:

- sets out the remit of the Working Party;
- sets out the conclusions and recommendations of the Working Party report;
- explains how the Bank is changing its procedures to implement the recommendations;
- describes how the provisionals press notice will be revised.

The main features of the Report are described in factuals 2 to 8 below.

2. What is or was the Working Party on Seasonal Adjustment of the Monetary Aggregates (Hibbert Committee)? A committee of experts on monetary statistics and seasonal adjustment under the chairmanship of Mr Jack Hibbert, Director of the CSO. Working Party included representatives of Bank of England, H M Treasury, CSO and two outsiders: Professor Jim Durbin (LSE) and Andrew Bain (Midland Bank).

3. When and why was it set up? Set up in December 1986 to consider extent of seasonality in monetary aggregates and best methods of seasonally adjusting them. The then recent switch to calendar month money figures from banking month figures made it a natural time for a review because at that time the back series of data on the calendar month basis was fairly short.

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4. What were the Working Party's conclusions? See Bank of England Press Notice (attached, annex A). Report is available from CSO. Bank accepts Working Party's conclusions and recommendations in full.

5. What difference will it make? Method of seasonal adjustment will change, so major revisions to figures will be less frequent. Format of provisional press notice will change, as will booklet of money figures published at time of final figures. Provisionals press notice will henceforth show seasonally adjusted annualised 3 month, 6 month and 12 month growth rates of the monetary aggregates. (Old and new version of press notices attached at annex B. **NOTE NO SPECIMEN OF NEW VERSION TO BE RELEASED TO PRESS BEFORE PUBLICATION OF NOVEMBER FIGURES ON 20 DECEMBER**).

6. How is method of seasonal adjustment to be changed? The major revision is to the method of deterministic adjustments and the list of components subject to deterministic adjustments will be altered - in particular, bank interest will no longer be subject to deterministic adjustment. Deterministic adjustments are those based on a previous knowledge of relevant factors (eg timing and size of PRT payments and effect on bank deposits) rather than on observed seasonal patterns in past. Hitherto adjustment based of forecast of expected movements over next year. Forecast was made only once a year and seasonal factors only updated once a year. Henceforth, the deterministic adjustments will subject to current updating, which means that they will be reviewed each month and updated as new information becomes available. This means that the sometimes substantial revisions to all the observations for the year, made in the autumn when the new seasonal adjustments are struck, should be replaced by more frequent but smaller revisions.

7. Why make all these changes now? Seasonal adjustments are normally revised at this time of year. This is the first revision since the Working Party's report was completed.

8. Are all the recommendations of the report to be implemented?
Yes. (But see defensives 3-5).

Defensive

1. Changes recommended by report represent implicit criticism of Bank? No. Working party found no evidence of any technical deficiency by Bank.

2. New format of press notices reinstates 3 month and 6 month percentage changes dropped when calendar month reporting introduced. Report has over-ruled Treasury and/or Bank. No. Only short runs of calendar month data available in 1986 when transition to calendar months made. Seasonal adjustment therefore naturally subject to greater than usual uncertainty. So sensible time to review procedures. But receipt of Hibbert Report makes present steps appropriate.

3. Revamping of provisionals press notice implies authorities to take M4 growth more seriously? Being groomed for target status? Changes relate only to presentation of seasonal adjustment. Developments in M4 already fully taken into account in comprehensive and continuous assessment of monetary conditions.

ONLY FOR USE IF ABSOLUTELY NECESSARY

4. Given recommendation A of the Working Party's report, why are the seasonally adjusted monthly M4 counterparts, particularly the PSBR, not to be published?

[Recommendation A stated: "The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix"]

Hibbert Committee concerned only with monetary aggregates, in line with its terms of reference. Recommendation A is about the way that seasonal adjustments are to be calculated - not a recommendation to change the number of seasonally adjusted series published. It is being implemented.

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5. Why suppress monthly seasonally adjusted PSBR figures when quarterly figures already published? Extension of seasonal adjustment to monthly figures is not sensible. In particular monthly PSBR figures are too susceptible to disturbances caused by non recurring special factors to make the PSBR a suitable candidate for seasonal adjustment at this frequency.

6. Treasury has won long running battle with Bank over publication seasonally adjusted monthly PSBR figures? Bank and Treasury both represented on Working Party and both fully accept the report and the revised presentation of the figures.

Seasonal adjustment of the monetary aggregates

In December 1986 a small group chaired by the head of the Government Statistical Service was set up to review the seasonality and method of seasonal adjustment of the monetary aggregates.⁽¹⁾ This group, which included independent representatives as well as representatives of the Bank and the Treasury, has now completed its work. Its findings are set out in Report of the Working Party on Seasonal Adjustment of the Monetary Aggregates, Central Statistical Office, 8 September 1988, obtainable from the CSO.⁽²⁾

The Bank, the Treasury and the Central Statistical Office have now considered the working party's report. A number of recommendations were made. This note sets these out and explains how the Bank proposes to respond to them. Technical terms used in this note are explained in the glossary on page 2.

The working party's terms of reference

The terms of reference of the working party were as follows:

- 1 To review the extent of seasonality in the monetary aggregates.
- 2 To examine the technical merits of different available methods of seasonal adjustment of the aggregates, taking into account:
 - (a) The need to provide maximum assistance in interpreting the aggregates.
 - (b) The treatment of non-seasonal influences that affect the underlying trend.
 - (c) Any significant differences in the resource costs between one method and another.
 - (d) The need to ensure consistency among different seasonally adjusted series.
 - (e) The stability of the seasonal factors produced by the different methods.
- 3 To consider whether any changes should be made, and to make recommendations.

The working party's conclusions

The working party reached the following conclusions:

- (a) The broader monetary aggregates display less seasonality than many other typical economic series. Nevertheless, they have a seasonal component comparable in strength with that in other series which are published in adjusted form.
- (b) External users of the data feel that they would need adjustments to cope with the seasonality. If no official series were produced, users would have to invent their own. The outcome would be confusing and inefficient.

- (c) Revisions to the seasonal factors for the monetary aggregates have been much greater than for non-monetary series, compared with the respective levels of the series. Nevertheless the observed instability of the seasonal adjustments is no larger, in proportion to the irregularity of the aggregates, than for other non-monetary data. There is no evidence that the revisions are due to any technical deficiency of the Bank's methods.
- (d) Nevertheless, some courses are open to the Bank which might reduce revisions to seasonal factors. One is to use current updating, which would be expensive to operate globally but on the basis of other studies might be expected to reduce revisions by about 15%. Current updating of deterministic adjustments only would be less expensive but still worthwhile. A second is to minimise changes to methodology.
- (e) The choice between stochastic and deterministic adjustments should be reviewed regularly. There is now a good case for changing the bank interest adjustment to stochastic.
- (f) The Bank should continue to ensure that the seasonally adjusted flow of funds matrix is balanced.
- (g) Apart from the question of current updating, none of the issues discussed has any significant resource cost implications.

The working party's recommendations

The working party made the following recommendations:

- (a) The Bank should continue to publish seasonally adjusted monetary aggregates in the framework of a balanced flow of funds matrix.
- (b) The Bank should review the choice of components for deterministic adjustment, with a presumption that bank interest is no longer a candidate for this method. The choice should be reviewed regularly.

(1) See the December 1986 *Bank of England Quarterly Bulletin*, page 522.

(2) Contact Mr P B Kenny, Central Statistical Office, Great George Street, London SW1P 3AQ. The report costs £2, including postage. Cheques should be made payable to 'Treasury Votes Cash Account'.

The Bank should minimise changes in the methodology. This means that the potentially beneficial effects of any proposed change need to be weighed carefully against the disruption which users are liable to suffer in consequence. Before making any major change, the Bank should consult with the CSO and the Treasury to ascertain the balance of advantage.

- (d) The Bank should use current updating of deterministic adjustments wherever feasible. The restriction on changing previously published seasonal adjustments should be relaxed where this will improve the effectiveness of current updating.
- (e) The CSO should review the policy of updating seasonal adjustments, considering in particular the practicability of using current updating for stochastic adjustments. The Bank and the CSO should discuss the applicability of this review to the monetary aggregates.

The Bank's response

The Bank accepts the working party's recommendations in full. The way in which the Bank will respond to these recommendations is set out below.

The Bank's monthly press releases showing the monetary aggregates will be extended to show growth rates over one, three, six and twelve months in seasonally adjusted form. This change will take effect with the press release showing the November money figures, to be published on 20 December 1988.

In accordance with recommendation (c), the consultation procedures concerning proposed changes to methodology have been enhanced. These procedures are being used during the current annual exercise to update the seasonal adjustments in the light of the latest data. It has been agreed that bank interest should no longer be subject to deterministic adjustments (recommendation (b)). It is not intended at this stage to make any other changes to components subject to deterministic adjustment. Once the results of the update have been promulgated the only deterministic adjustments will be in respect of payment of Petroleum Revenue Tax (see the June 1981 issue of the *Bank of England Quarterly Bulletin*, pages 200–201, and the June 1983 *Bulletin*, page 257), and in respect of a change in 1986/87 in the timing of payments of Composite Rate Tax by building societies.

The CSO is to undertake the review suggested in recommendation (e). When the review is complete, the Bank and the CSO will discuss its applicability to the monetary aggregates. For the time being, the Bank proposes to respond to recommendation (d) by introducing a procedure for the current updating of deterministic adjustments. Hitherto, it has been the Bank's practice to revise seasonal adjustments only once a year, following the completion of the annual updating exercise. The last such update took place with the publication of the October 1987

Glossary of terms

Stochastic adjustments assume that the pattern of seasonal variation in a series is stable or evolving smoothly in time, and hence may be estimated by some form of moving average of the data.

For some series it is judged that the assumptions underlying stochastic methods do not apply. Usually these are series for which the seasonal pattern undergoes an abrupt change, or for which the size of the seasonal effect changes with some external factor. For these series a method known as *deterministic adjustment* is used. This method treats the objective of the adjustment as being to achieve a smooth path for the adjusted series within the year. The adjusted series is therefore defined by setting each monthly value to the average of the unadjusted values. The adjustment of the current year requires forecasts of the unadjusted values for the remainder of the year. In some cases a smoothing period other than a year is appropriate; periods of six months or three months are used.

Current updating means re-running the seasonal adjustment procedure each month as new figures are included in the series, or as new forecasts become available which affect the assessment of seasonal patterns in the latest year.

The *bank interest adjustment* is a deterministic adjustment to interest-bearing bank deposits, to allow for the regular increases in bank deposits that occur when accrued interest is credited to deposit accounts. With many types of account it is the practice to credit interest at three, six or twelve-monthly intervals although monthly interest crediting is becoming more common.

A *balanced* seasonally adjusted flow of funds matrix is one in which the rows and columns of the matrix are subject to the same accounting constraints as the unadjusted matrix. For example, in Table 19.1 of the statistical annex of the *Bank of England Quarterly Bulletin*, row 5 is the sum of rows 39 and 40, and most rows of the table sum to zero.

figures in November 1987. In future, stochastic adjustments will be reviewed, as before, in an annual updating exercise, and promulgated in November or December each year. But deterministic adjustments will be reviewed regularly throughout the year, and if changes are thought to be appropriate they will be introduced as soon as possible. Such changes would, of course, affect not only the adjustment to the most recent month or two, but possibly those to a much longer run of earlier months as well. On past experience, it seems unlikely that it will be necessary

to make such changes more than three times a year. When changes are made, they will be promulgated in the first monthly press release (*Provisional Estimates of Monetary Aggregates*, published around the 19th of each month).

Tables will be provided showing the seasonally adjusted data on both the 'old' and 'new' bases for the latest month and for a run of recent months. The second monthly press release (*Monetary Statistics*, published around the end of the month) will use the same updated adjustments as the provisional press release. This second press release will

continue to give an indication of the seasonal adjustments for the forthcoming month. It will not be possible in either of the press releases to give any indication of the reasons which gave rise to the need for an update to seasonal adjustments, **except in cases where the information which gave rise to the update is already publicly available.** It is proposed to introduce this new procedure once the latest annual update of seasonal adjustments has been promulgated; this is expected to occur with the publication of the November figures on 20 December 1988.

Bank of England
29 November 1988

CURRENT FORM OF PRESS NOTICE

Provisional estimates of monetary aggregates: October 1988

1 Provisional information suggests the following:

% changes		M0	M3	M4	M5
12 months to October (not seasonally adjusted)		+7.7	+19.8	+17.4	+16.6
October	- not seasonally adjusted	-0.6	+0.9	+0.8	+0.7
	- seasonally adjusted	-0.1	+1.3	+1.2	+1.1

2 Provisional counterparts to the changes in M3, M4 and M5 are:

£ billions, not seasonally adjusted

	M3		M4		M5	
	October	latest 12 months	October	latest 12 months	October	latest 12 months
A PSBR	-2.4	- 10.5	-2.4	- 10.5	-2.4	- 10.5
B debt sales to private sector (-) (1)	+2.6	+1.2	+2.4	+0.4	+2.2	+1.1
C external flows to public sector (-)	<u>+0.1</u>	<u>+ 5.8</u>	<u>+0.1</u>	<u>+ 5.8</u>	<u>+0.1</u>	<u>+ 5.8</u>
D public sector contribution (A+B+C)	+0.3	- 3.5	+0.1	- 4.3	-0.1	- 3.6
E sterling lending (2)	+3.9	+56.1	+6.1	+79.6	+6.2	+79.1
F other counterparts (3)	<u>-2.2</u>	<u>-16.6</u>	<u>-3.5</u>	<u>-23.6</u>	<u>-3.6</u>	<u>-23.6</u>
Total (D+E+F)	<u>+2.0</u>	<u>+36.0</u>	<u>+2.7</u>	<u>+51.7</u>	<u>+2.5</u>	<u>+51.9</u>
Sterling lending (seasonally adjusted)	+3.9		+6.0		+6.1	
(average of previous 6 months)	+5.2		+7.5		+7.5	

(1) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

(2) Lending by the monetary sector (and, for M4 and M5, by building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(3) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

3 Full monetary statistics for October, including revised estimates of the figures given above, will be published on 29 November.

Draft Confidential

Provisional estimates of monetary aggregates: October 1988

1 Provisional information suggests the following:

<i>% changes</i>		M0	M3	M4	M5
October 1988	(not seasonally adjusted)	-0.6	+0.9	+0.8	+0.7
12 months to October 1988	(not seasonally adjusted)	+7.7	+19.8	+17.4	+16.6
October 1988	(seasonally adjusted)	-0.1	+1.3	+1.2	+1.1
12 months to October 1988	(seasonally adjusted)	+7.6	+19.6	+16.9	+16.1
3 months to October 1988	(seasonally adjusted, annual rate)	+10.0	+23.5	+20.1	+18.9
6 months to October 1988	(seasonally adjusted, annual rate)	+10.2	+24.5	+20.9	+20.0

2 Provisional counterparts to the changes in M3, M4 and M5 are:

<i>£ billions, not seasonally adjusted</i>	M3		M4		M5	
	October	latest 12 months	October	latest 12 months	October	latest 12 months
A PSBR	-2.4	- 10.5	-2.4	- 10.5	-2.4	- 10.5
B debt sales to private sector (-) (1)	+2.6	+1.2	+2.4	+0.4	+2.2	+1.1
C external flows to public sector (-)	+0.1	+ 5.8	+0.1	+ 5.8	+0.1	+ 5.8
D public sector contribution (A+B+C)	+0.3	- 3.5	+0.1	- 4.3	-0.1	- 3.6
E sterling lending (2)	+3.9	+56.1	+6.1	+79.6	+6.2	+79.1
F other counterparts (3)	-2.2	-16.6	-3.5	-23.6	-3.6	-23.6
Total (D+E+F)	+2.0	+36.0	+2.7	+51.7	+2.5	+51.9
Sterling lending (seasonally adjusted)	+3.9		+6.0		+6.1	
(average of previous 6 months)	+5.2		+7.5		+7.5	

(1) Sales of public sector debt to the private sector other than banks (and, for M4 and M5, building societies), with an adjustment in the case of M5 for private sector holdings of certain liquid government debt.

(2) Lending by the monetary sector (and, for M4 and M5, by building societies) to the rest of the private sector. For M5, an adjustment is necessary for private sector holdings of certain money-market instruments etc.

(3) External and foreign currency transactions and net non-deposit liabilities of banks (and, for M4 and M5, of building societies).

3 Full monetary statistics for October, including revised estimates of the figures given above, will be published on 29 November.

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 OLD STYLE PRESS NOTICE

(before switch from Banking to calendar months)

PROVISIONAL ESTIMATES OF MONETARY AGGREGATES: BANKING AUGUST 1986

Preliminary information suggests that, in the five weeks to 20 August 1986, M0 may have risen by about 1/2% and £M3 may have risen by about 1 1/4%, after seasonal adjustment.

Note for Editors

1 The provisional estimates for August suggest that recent rates of growth are approximately as follows:

Rates of growth, annualised %; seasonally adjusted

	Latest 3 months	Latest 6 months	Latest 12 months
M0	5 1/2	4 1/2	4
£M3	11	24	18 1/2

2 Provisional counterparts to the change in £M3 in banking August are:

£ billion, seasonally adjusted

PSBR(1)	+1.5
Debt sales to nbps(2) and external flows to public sector(3)	-2.1
(of which, debt sales to nbps -1.5)	
Sterling lending to private sector(4)	+2.5
Other counterparts(5)	-0.2
	<u>+1.7</u>

(1) Strictly, the PSBR less net purchases of local authorities' and public corporations' debt by the non-bank private sector.

(2) Net purchases (-) of CG debt by the non-bank private sector.

(3) External and foreign currency finance of the public sector (-).

(4) Including Issue Department holdings of commercial bills.

(5) The banks' external and foreign currency transactions and net non-deposit sterling liabilities.

3 The PSBR, net of debt sales to the non-bank private sector and external flows to the public sector, was contractionary by about £0.6 billion. The growth in sterling lending to the private sector was about £2.5 billion, compared with an average of about £2.3 billion a month over the preceding six months. Other counterparts taken together were contractionary.

4 Full money and banking figures for August, including revised estimates of the growth rates given above, will be published on 18 September.

SECRET AND PERSONAL

DATE: 9 December 1988

- 1. SIR PETER MIDDLETON
- 2. CHANCELLOR OF THE EXCHEQUER

- cc Chief Secretary
- Financial Secretary
- Economic Secretary
- Sir T Burns
- Sir G Littler
- Mr Lankester
- Mr Monck
- Mr Scholar
- Mr H P Evans
- Mrs Lomax
- Mr Odling-Smee
- Mr Peretz
- Mr Sedgwick
- Mr Gieve
- Mr Hibberd
- Miss O'Mara
- Mr Riley
- Mr Brooks
- Mrs Ryding
- Ms Chaplin
- Mr Tyrie
- Mr Call
- Mr Cassell - Washington

If the Chancellor has time he might find it useful to read the whole of the assessment on this occasion; it is very well presented.

Mr. Rankin. It is well presented. As Bob knows, I do not intend to agree with the intervention policy suggested in 8(b) + 8(c). This is the 1979/80: the time was not money to grow. I think it is a mistake to promise to submit to the X.R. (see my note on 20/11/88)

File: MAMC F1

MONTHLY MONETARY ASSESSMENT: NOVEMBER 1988

This note records the discussion at Sir Peter Middleton's monthly meeting on monetary conditions on 7 December. Attached is the usual Monthly Assessment.

Sir Peter Middleton's Meeting

2. Beginning the discussion, Mr Scholar felt that the Assessment provided detailed documentation of why it had been prudent to raise interest rates on 25 November. To be sure, the evidence pointed both ways and some of it represented just the sort of response to the tightening of policy earlier in the year which had then been predicted or hoped for:

no growth over the short run (Sep/Oct/Nov) - Mr. A current position, altho' a general low price, does not perhaps attach sufficient weight to the sharp decline of...

H. Evans submission on 20/11/88 (see my note on 20/11/88)

SECRET AND PERSONAL

(i) M0 growth had decelerated considerably since August. But the underlying growth was still at or above the top of the target range

(ii) M1's growth was erratic. But it seemed, at least, to have stopped accelerating for the moment;

(iii) the housing market was clearly cooling off. Both the DoE and Halifax price indices were now decelerating. Mortgage commitments and lending remained at their lower levels;

(iv) survey evidence of reduced consumer confidence continued to accumulate. Consumer lending had fallen by £200 million in October.

3. But much of the evidence was insubstantial or ambiguous. Pointing the other way were the disappointing October retail sales and import figures, a GDP deflator now forecast to rise $6\frac{3}{4}$ per cent in 1988-89 and a raft of strong activity figures.

4. As to policy, two questions needed to be answered:

(a) since 25 November, the exchange rate had risen most days. We needed to decide our response if this continued. The first instinct was probably to do nothing, attempting to ride out any speculative pressure in expectation of a reversal before long. But if that was not acceptable, a single substantial bout of intervention might be appropriate, at a rate above the present one, to encourage profit-taking;

(b) more bad trade figures on 23 December could create pressures in the opposite direction. But a good deal more evidence on monetary conditions would need to be accumulated before there could be any question of any further rise in interest rates.

5. Mr George agreed with this appraisal, both of the current situation and with respect to policy. He believed that the rise in interest rates to 13 per cent had sent a strong message to

domestic markets about the Government's resolve. In principle, it was possible that the move had represented an overkill. But it was hard to see that. Certainly, there was no sign from industry of policy now being too tight. More of a case could be made in the housing market, which had clearly frozen up and where further effects were still to come when annual reviews of monthly mortgage repayments take place in January to April next year. But it was important to remember that a substantial change was needed, given the frenetic conditions that the housing market had reached.

6. Sir Terence Burns agreed that the results of the policy tightening were beginning to come through. In the housing market, the signs were strong. The picture was not entirely straightforward because of the marked regional disparities. But it was sensible to concentrate on the position in the South-east which had set the national trends in recent years. Not only had prices stopped rising but, as Mr George pointed out, there were still further effects to come from the annual reviews.

7. In discussion, the following further points were made:

(i) M4's behaviour needed to be watched carefully. It may have stopped accelerating. But the longer it grew at annual rates of 17 or 18 per cent the more disturbing it would be. The combination of high retail sales, lower consumer borrowing and low retail deposit growth in October could mean that people were financing their spending out of deposits and not from borrowing. If so, that would be a sign of the "liquidity glacier" starting to melt;

(ii) the house-price earnings ratio had now passed the 1973 peak. That previous peak and the lower one in 1979 had subsequently been reduced by stable house prices matched by high earnings growth. This time, with nominal earnings rising less quickly, a fall in house prices might occur - perhaps by as much as 10-20 per cent spread over the next few years.

SECRET AND PERSONAL

8. Before concluding, Sir Peter Middleton said that it would be helpful to discuss our attitude both to the dollar and, picking up Mr Scholar's question, towards sterling if it continued to be subject to upward pressures. The following points were made in discussion:

(a) if the dollar came under pressure in the next few weeks, it was probable that the UK would be called upon to help support it under G7 arrangements. There were countervailing considerations. It was not in our interests to see a sharp and disruptive fall in the dollar. At the same time, it was important not to absolve the US authorities from themselves taking corrective measures. The German authorities would probably take the same view. The Fed's reluctance to raise interest rates was near-incomprehensible.;

(b) a further rise in sterling could reflect two separate circumstances. It could reflect short term speculative pressure if the markets felt they had been presented with a one-way bet. Any such impression would be reinforced if the authorities allowed the thought to take hold that they actively wanted a higher rate. Alternatively, the appreciation might occur as an integral part of the overall tightening which the decision to raise interest rates on 25 November represented. Indeed, arguably it would be inconsistent with that decision to prevent this process taking place. A firmer exchange rate could play a helpful role in the months ahead in bringing pressure to bear on inflation. While it would increase the pain, it would help to get the inflation adjustment over faster;

(c) this suggested that a two-part policy response might be appropriate. After an appreciable further rise had occurred, the authorities might engage in a single heavy bout of intervention. If the upward pressure were merely speculative froth, this should be sufficient to check it. Alternatively, if the upward pressure proved substantial and longer-lived, then $\frac{1}{2}$ per cent might be taken off interest rates at an exchange rate not very much higher than when the intervention had occurred. This policy implied a bias towards some

SECRET AND PERSONAL

further tightening, but beyond a certain point there would also be a change in the interest/exchange rate balance.

9. Summing up, Sir Peter Middleton said that the meeting was agreed that, for the present, interest rates were at the appropriate level. It recommended resisting pressures for either higher or lower rates. The tightening over the last few months had been significant and would probably call forth a substantial response. But the evidence suggested a big response was necessary not only in the housing market but also to correct the course of M0 and money GDP itself.

JWG

J W GRICE

cc: Governor)
Deputy Governor)
Mr George)
Mr Flemming) Bank of England
Mr Coleby)
Mr Plenderleith)

Professor Griffiths - No 10

SECRET AND PERSONAL
MONTHLY MONETARY ASSESSMENT: NOVEMBER 1988

Summary Assessment

Assessment is more difficult than for some time: the straws in the wind are blowing both ways. Consumer confidence has fallen further and the housing market has come off the boil. But producers remain confident and spare capacity is low. Consumer lending has weakened but October retail sales were strong. MO has not yet slowed decisively. Overall, a confused picture with the economy's next trend yet to resolve itself.

Main Points

Money GDP growth in 1988-89 is now expected to be a little above the 11 per cent forecast in October, with the upward revision reflecting faster real growth. It could decline to 8½ per cent in 1989-90. The outlook for underlying inflation has not changed since the last Assessment. (Paras 23, 32-33).

MO's 12 month rate of growth was about 7½ per cent in November, the same as in August, September and October (after correcting for known postal strike effects in September). Recent weekly figures for notes and coin provide no evidence yet of a sharp slowdown. (Paras 41-42, Table 26).

Sterling's effective exchange rate has risen by around 2½ per cent since the last Assessment (3 November). The oil adjusted ERI has increased by ½ per cent as oil prices have risen sharply. (Para 40).

M4 growth fell to 17½ per cent in October (September: 18½ per cent). The increase in non-housing lending has been erratic in recent months, but lending to the personal sector for consumption fell - the first significant fall for two years. (Paras 43, 48, 52).

Consumer confidence has fallen sharply again. Business optimism, as measured by the October CBI Survey remained strong. (Paras 17, 12, Annex)

House prices increased by 33.8 per cent in the year to November according to the Halifax index (October: 34.4 per cent. The rise of 1½ per cent in the index in November was about the same in October and less than half the average rise of recent months. Anecdotal evidence of the slowdown in the housing market continues to accumulate. (Paras 28-31, Table 10).

ANNEX Indicators of Consumers' Expenditure

MG2 Division

9 December 1988

Monetary developments since last month's report

Latest outturns available at time of:

	May Report	October Report	November Report
Monetary aggregates (12 month % growth)	(April)	(September)	(October)
M0 (sa)	6.2	8.4	7.6*
M3	19.4	22.6	19.8
M4	16.0	18.6	17.4
M5	15.7	17.9	16.6
Bank lending	26.8	27.9	28.1
Bank & building society lending	21.8	24.2	24.7
Interest rates (%)	7 June	3 November	8 December
3 month interbank	8.7	12.1	13.3
20 year gilt-edged (par yield)	9.2	9.2	9.4
Yield gap	-0.5	2.2	3.9
UK real 3 month interbank	n/a	5.4	5.8
Equity dividend yield (all share)	4.2	4.4	4.8
IG yield (2001) assuming 5% inflation	3.9	3.5	3.7
3 month UK interest differential with			
Germany	5.1	7.3	8.2
US	1.1	3.5	4.0
World basket	2.2	4.7	5.7(est)
Exchange rate			
\$/£	1.81	1.78	1.85
Yen/£	228	221	227
DM/£	3.11	3.16	3.23
ERI	76.5	76.6	78.7
Oil adjusted ERI**	107.1	111.3	111.8
Asset prices			
FT-A Index (% pa)	16.4	+16.4	11.8
FT-A Level (July 1987 peak: 1239)	941	960	910
Halifax house index (% pa)***	20.3	34.0	34.4

* November : 7.6

** The oil adjusted ERI shows whether the joint effect of oil price and exchange rate changes has been counter-inflationary or otherwise, relative to the base period Jan 1983-Nov 1985, on the assumption that the inflationary effect of a 4 per cent rise in oil prices is exactly offset by a 1 per cent rise in the exchange rate.

*** 12 month growth rates shown are for April, September and October. November 33.8.
One month changes: August 3.1, September 3.6, October 1.5, November 1.7 (see table 10).

A. External Developments

1. Latest figures confirm that growth in the major countries remains strong, though there has been some slowing down from the rapid pace in the first quarter. The G7 12-month rate of inflation has continued to edge up very gradually, reaching 3.5 per cent in October. There has been more strengthening of domestic inflationary pressures in some countries, notably the US where capacity utilisation is close to previous peaks, and G7 inflation is expected to increase slightly to about 4 per cent in 1989, in part also because of indirect tax increases in Japan and Germany. Commodity prices have eased since the middle of the year. On 29 November, the Economist all items index (which excludes oil) was 12 per cent lower (in SDRs) than in the peak month of June, though still 20 per cent higher than a year ago. Oil prices rose by more than a dollar in the last week of November as OPEC reached an agreement on production.

2. Recent movements in short term interest rates (table 3) largely reflect developments in exchange markets. Market rates in the US and France have risen in response to downward pressure on the dollar and franc. Japanese and German rates have fallen.

3. Since 2 November, the dollar has fallen by about 2 per cent to DM1.7430 and Y122.78. After a period of directionless trading in the immediate run-up to the Presidential election, the dollar moved lower on market doubts about the next Administration's policies on the budget deficit and comment that the dollar needed to fall substantially to correct the trade deficit: these comments were not endorsed by the incoming administration, but Brady did say that he was not concerned about the dollar's recent weakness. Well-publicised concerted intervention gave periodic support to the dollar. Gorbachev's announcement of arms cuts on 7 December led to a sharp upward surge in the dollar on expectations that lower US defence spending could reduce the budget deficit. In total the Fed bought \$1½ billion (chiefly against yen) and the Bank of Japan bought \$2½ billion, with individual European central banks taking part on a smaller scale. Looking ahead, there is the possibility that renewed downward pressure on the dollar (due, for example, to disappointing trade figures) could lead to a further rise in US interest rates.

4. There is no firm evidence yet that the German visible trade surplus has peaked. The pace of adjustment of the US deficit and Japanese surplus may have slowed.

B. Activity and Inflation

5. Recent indicators of activity and inflation are summarised in table 6. Since the last assessment, figures for the output measure of GDP in the third quarter have been published, showing continued strong growth. There is now clear evidence of slower growth in house prices. But the October retail sales figures, which showed a large rise after September's fall, go against anecdotal and survey evidence suggesting that the pace of consumer demand growth might already be easing. Underlying inflation continues to edge upwards as expected.

Money GDP: Latest estimate from CSO

6. The average measure of GDP at constant factor cost is likely to have been about 2½ per cent higher in the third quarter of 1988 than a year earlier, compared with an increase of 4 per cent in the year to the second quarter of 1988. This decline reflects the quarterly pattern of GDP(A) last year as much as this year. However these figures are biased downwards by deficiencies in the expenditure measure of GDP. The output based measure, GDP(O), which is usually the most reliable indicator of short term changes, showed a growth of 1½ per cent between the second and third quarters of 1988 following a 1 per cent increase between the first and second quarters.

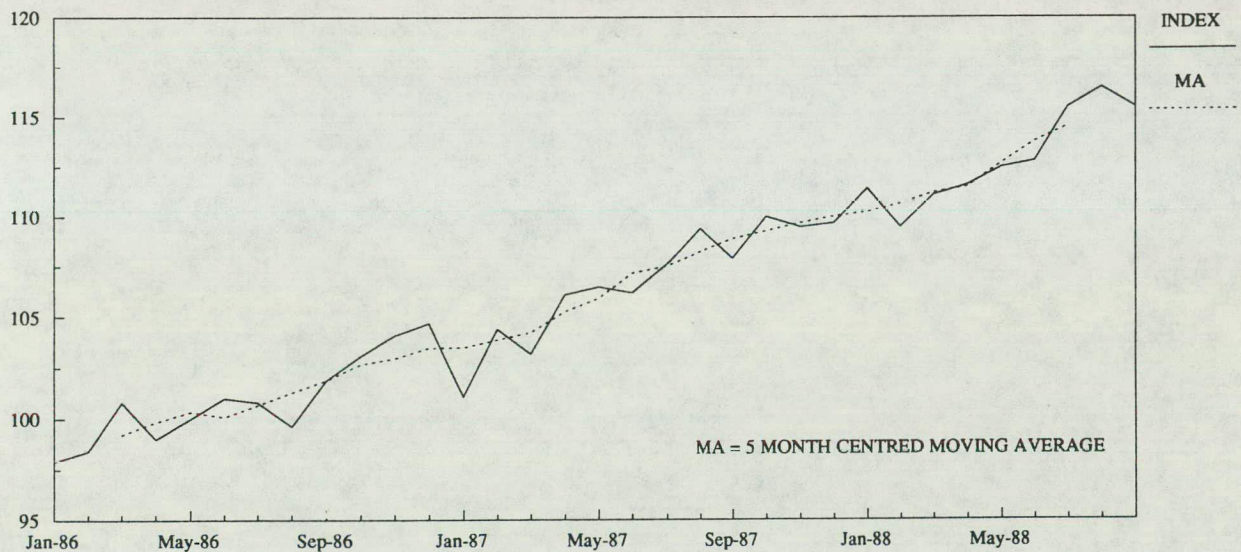
7. So the current underlying rate of growth of real GDP is probably in the range 3 to 5 per cent. 12 month growth in the GDP deflator is likely to be about 6½ per cent to 1988Q3. Around two thirds of this increase occurred between 1988Q1 and 1988Q3. Its underlying rate of increase is probably in the range 6 to 8 per cent. CSO consider that this indicates a current underlying rate of growth in money GDP in the range 10 to 12 per cent.

Activity and demand

8. The average measure of GDP is estimated to have grown by $4\frac{1}{2}$ per cent between the first halves of 1987 and 1988. Unpublished revisions to consumers' expenditure are likely to increase this to $4\frac{1}{2}$ per cent. Even after these revisions, it seems likely that the expenditure measure is being understated in official statistics. If, as we expect, it is eventually revised up, growth in the average measure in 1988 could be faster than the $4\frac{1}{2}$ per cent forecast in the Autumn statement.

9. The output measure of GDP has been rising particularly rapidly in recent quarters. Its annual growth rate fell a little from 6 per cent in the first half to 5 per cent in the third quarter. But this largely reflects the loss of oil production following the Piper Alpha disaster. Excluding oil, growth has been steady at around 6 per cent since mid 1987.

Chart: Index of manufacturing output



10. The rise in whole economy output in the third quarter is largely accounted for by strong growth in the manufacturing sector, and in distribution, banking, insurance and finance within

the service sector. Manufacturing output fell slightly in September but rose 3 per cent in the third quarter as a whole, to a level 7 per cent higher than a year earlier.

11. Construction output is projected to have risen strongly in the third quarter, consistent with the trend over the past year. However, revised estimates suggest that private sector housing starts have been falling slowly from their high first quarter level: in the third quarter they were unchanged from the level in the fourth quarter of 1987. Private sector completions rose slightly in the third quarter but remained below the first quarter level.

12. The October CBI quarterly trends inquiry, conducted between 23 September and 12 October, showed further rises in business confidence and in export optimism, but there was a hint that manufacturing output growth might be moderating. This was broadly supported by the November monthly inquiry. The balance of firms expecting higher output over the next four months fell from 31 per cent in September to 24 per cent in October and 25 per cent in November. Investment intentions remain strong. But the CBI believe there are signs that capacity constraints are becoming a more significant problem: the proportion of firms working below capacity, although unchanged, remained at an all time low, and the proportion expecting to be constrained by plant capacity shortages rose towards its 1973 peak.

13. Consumers' expenditure is estimated to have grown by 2 per cent in the third quarter. There have also been substantial upward revisions to earlier quarters since the Autumn Statement was published. The growth rate between the first three quarters of 1987 and 1988 is now put at nearly 6½ per cent, suggesting that the Autumn Statement forecast of 5½ per cent growth for the year as a whole may be an underestimate.

14. This sthenic growth reflected rises in retail sales and a marked increase in expenditure on vehicles. New car registrations, which reached a record level in August, remained high (on a seasonally adjusted basis) in September but fell back

in October. The monthly figures are hard to interpret however, because of the difficulties of seasonally adjusting this series.

15. Tentative signs that the higher interest rates were beginning to restrain demand were contradicted by the October retail sales figures: a rise of nearly 2 per cent. This reversed the small falls of the previous two months, and took the index above the high July level, when sales may have been boosted by tax rebates.

16. The October retail sales figures appeared to be inconsistent with the CBI/FT Distributive Trade Survey for October, which suggested that demand had been weaker than retailers had expected. However this survey covers mainly large retailers while much of rise in the retail sales index in October reflected strong sales by small shops. John Lewis's weekly sales for October do not appear inconsistent with the official data.

17. Despite the sales figures the EC/Gallup consumer confidence survey showed a further fall in confidence in October. The percentage balance has now fallen steadily from +9 in June to -5 in October. The various indicators of consumers expenditure are discussed further in the Annex. The evidence, such as it is, does not indicate any renewed surge in retail sales in November.⁽¹⁾

18. Provisional estimates of investment by manufacturing, construction distribution and financial industries showed a fall of 6 per cent between the second and third quarters. These estimates are significantly below the figures implied by the Autumn Statement forecast, which projected very buoyant investment in the second half of 1988. But we pay little attention to these preliminary figures: there is a long record of large upward revisions to early estimates; and they do not square with the June DTI Investment Intentions Survey, which predicted 16 per cent rise in manufacturing investment and a 10 per cent rise for non manufacturing investment in 1988, or with the buoyant results of recent CBI surveys.

19. Preliminary estimates of stockbuilding, which are also subject to substantial revision, showed small rises in

(1) It is now known that the preliminary estimate of retail sales in November, published by CSO on 12 December, will show a fall of $\frac{1}{2}$ per cent on October.

distributors' stocks in the third quarter offset by falls in manufacturers' stocks, particularly of finished goods.

20. The October trade figures showed a current account deficit of £2,429 million, the highest monthly deficit ever, in either nominal terms or as a proportion of GDP. Export volumes fell by 10 per cent while import volumes rose by 11½ per cent. The deterioration in the visible balance between September and October partly reflects large movements in erratic items (the balance of erratics was very favourable in September). Also, Customs believe that action taken during September to compensate for the disruption to postal services may have resulted in about £300 million of exports being misallocated from October to September. But underlying export performance remains good. Excluding oil and erratics, exports in the three months to October were up 4½ per cent on a year earlier, with manufactures (less erratics) up 7 per cent. It is import volumes that are doing the damage. In the three months to October, import volumes (less oil and erratics) were up 14 per cent on a year earlier with manufactures (less erratics) 16 per cent higher.

21. Given the deterioration in net trade and the falls in recorded investment, it seems likely that the first estimate of GDP(E) will once again show little growth or perhaps even fall. If so, the discrepancy between the output measure and the expenditure measure will widen further.

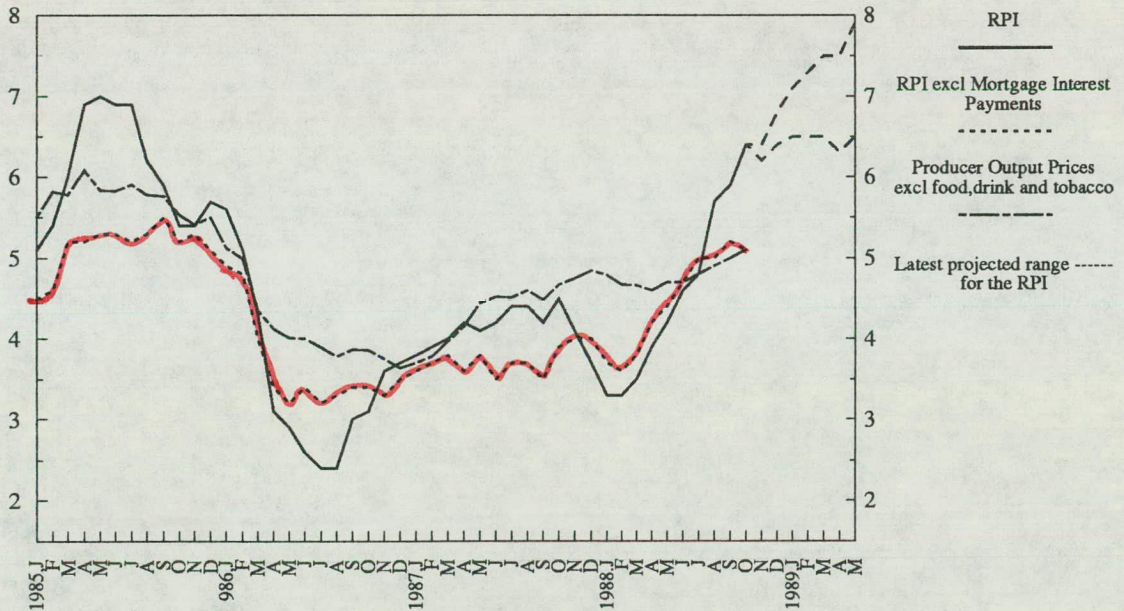
22. Seasonally adjusted adult unemployment (unaffected by the removal of under 18's from the count), fell by 32,000 in October, slightly below the average fall of 40,000 a month over the past six months. As expected, the very small fall previously recorded in September turned out to stem from the postal strike, which led to delay in removing some claimants from the count. Revised estimates show a fall of around 30,000.

Inflation

23. RPI inflation has risen in every month since February and reached 6.4 per cent in October. It now is at its highest level

since July 1985. However, the increase from 5.9 per cent in September was due entirely to higher mortgage interest rates. Excluding mortgage interest payments RPI inflation actually fell to 5.1 per cent in the year to October from 5.2 per cent in September. Total RPI inflation will probably fall in November as the effect of last year's RPI error falls out of the 12 month comparison. But mortgage interest rates fell last December, so that the 12 month increase will rise in December this year as that change drops out of the comparison. RPI inflation could easily reach about 7½ per cent by early 1989 (depending on the response of the building societies to the latest rise in base rates). Excluding mortgage interest payments, RPI inflation should increase only slightly to about 5½ per cent in the first quarter 1989.

Chart: Retail and producer price inflation

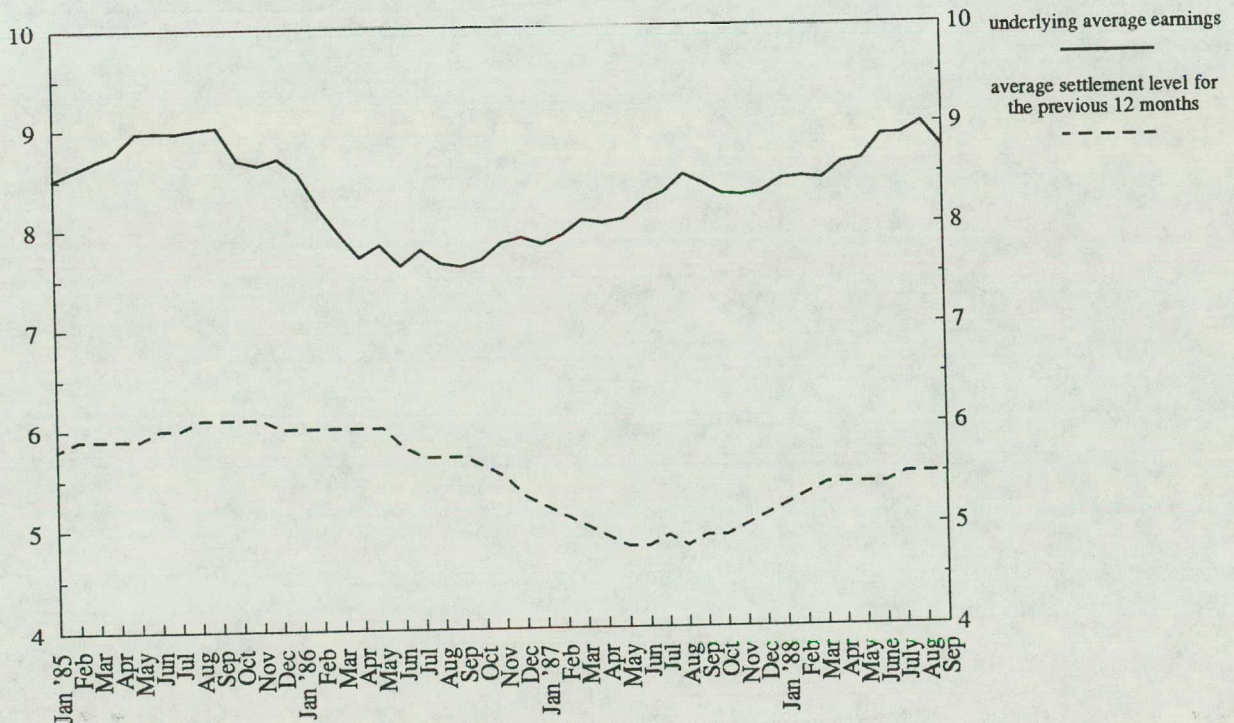


24. Producer output price inflation (excluding food, drink and tobacco) rose again to 5.1 per cent in October. This is despite low increases in unit labour and other costs, implying strong growth in profit margins. Producer input price inflation (also

excluding FDT) fell from 4.0 per cent in September to 3.4 per cent in October.

25. In the private sector wage settlements rose in the pay round that has just ended. It now looks as if the average level of private sector settlements was 6 per cent, up from 5½ per cent in 1986/87. The rise in the manufacturing sector was the same - up ½ per cent to 5½ per cent. The underlying growth of average earnings remained at 9¼ per cent in September. Underlying earnings growth in manufacturing fell to 8¾ per cent. Most of the rise in whole economy earnings growth can be scored to the public sector - notably LA manuals and the Nurses. The rise in private sector earnings is also mainly due to settlements, but they have risen by much less than in the public sector. Drift is making about the same contribution as at this time last year. The contribution to earnings growth from overtime has fallen steeply in recent months, reflecting a levelling out of overtime hours, following very strong growth during 1987. This static overtime picture, together with a continuing fall in employment, demonstrates that firms are responding to strong demand growth with further improvements in productivity.

Chart: Settlements and earnings in manufacturing



26. The immediate outlook for earnings growth is for a fall by the end of the year. The LA manuals have settled for a moderate increase this year, which will help to reduce the figures from November. Furthermore, overtime working will start to make a negative contribution to earnings growth soon, even if it stays at current levels. But the initial signs are that settlements are rising again. The CBI reported a marked rise in manufacturing settlements in October to 7.0 per cent from 6.3 per cent in the previous quarter. But it is still too early yet to reach conclusions about the coming round.

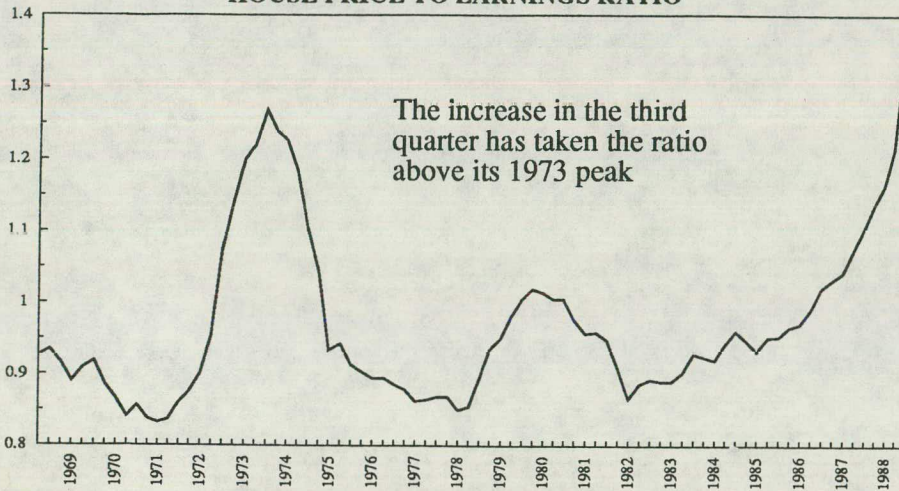
27. The continued strong growth in productivity is largely offsetting the effect on unit wage costs of increases in manufacturing earnings. In the three months ending in September manufacturing productivity was 7.4 per cent higher than a year earlier.

House Prices

28. House prices as measured by the Halifax index rose nationally by 34.4 per cent over the year to October, compared with 34.0 per cent over the year to September. (The November figures have not yet been published, but we understand that they will show a 1.7 rise compared with October, and a 33.8 per cent rise since November last year). In October, house prices rose by just 1.5 per cent, less than half the monthly rise in each of the previous six months (table 9). At a regional level, the Halifax found strong evidence in October of a slowdown in the housing market throughout the South of England, whereas the market remained buoyant further North, particularly in the Northern region and Scotland which had accelerating house prices.

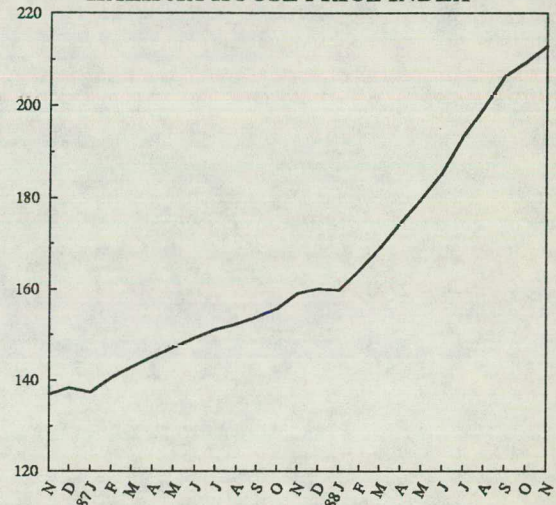
Chart: House Prices

HOUSE PRICE TO EARNINGS RATIO



1980=100
DoE mix adjusted completion
Provisional figure for Q3 1988

HALIFAX HOUSE PRICE INDEX



Standardised index of all house prices 1980=100

29. Chart 14 shows alternative measures of annual house price inflation. Whereas the Halifax index continues to rise, both the DoE indices (at approval and completion stage) show distinct falls. This substantial discrepancy is not easy to explain, but may be due in part to the different regional coverage of the indices, with the DoE possibly being more weighted to the South. The DoE 'approvals' series shows a fall in the average price of all dwellings of nearly 2.9 per cent between September and October, from £56,410 to £54,785. The corresponding average percentage changes on the year before fell from 24.3 per cent in September to 17.2 per cent in October. No such decline is apparent in the Halifax figures.

30. The anecdotal information provided in the latest RICS survey for the quarter ending October 1988 would seem to support both the continuing regional differences as highlighted by the Halifax, and the substantial fall in activity in the housing market as a whole. The RICS comments that the effects of the dormant market in the South are being felt over a greater part of the country, and prices are stabilising with asking prices being revised downwards in certain cases to adjust to market conditions.

31. It is evident from the RICS returns that the market has levelled out considerably due in large part to the MIRAS changes, increases in interest rates and the widespread belief that property prices have peaked. The Northern region stands out from the generally dampened market as still being very active. By contrast, there is now evidence of prices in the London area grinding to a halt, and even of price falls in Ealing. There is no evidence yet, however, of a general fall in prices. While the RICS reports estate agents' opinions that confidence will gradually return, implying falls in prices will occur in only isolated cases, the latest rise in base rates will dent this confidence and increase the likelihood of fall in house prices early next year.

Projections for Money GDP

32. The autumn internal forecast showed an 11 per cent rise in money GDP in 1988-89, compared with $7\frac{1}{2}$ per cent growth in the FSBR forecast. Real GDP growth was forecast to be nearly 4 per cent, and the GDP deflator was forecast to rise by $6\frac{1}{4}$ per cent, compared with the FSBR forecast of $4\frac{1}{2}$ per cent. At this stage there is no reason to revise our internal forecast of the GDP deflator (which was $\frac{1}{2}$ per cent higher than the figure published in the Autumn Statement). The GDP deflator is growing more rapidly than other measures of inflation, partly because it includes buoyant prices like the investment deflator and the implicit deflator on government services (largely earnings). Discounting the unreliable first estimates of third quarter investment, indicators of real activity point to slightly stronger growth than forecast in October. Money GDP growth may also be rather higher, perhaps in the range 11- $11\frac{1}{2}$ per cent.

33. Growth of money GDP is expected to slow to $8\frac{1}{2}$ per cent in 1989-90, with growth in the GDP deflator falling to 6 per cent - both well above the growth rates in the MTF5.

C. Public Sector Finances and the Fiscal Stance

34. Table 8 gives the main indicators of the fiscal stance. The PSDR in October 1988 was £2.4 billion, bringing the cumulative total for the first seven months of 1988-89 to £6.0 billion, £5.5 billion higher than forecast in the Budget profile. The CGBR(O) is £3.9 billion below profile - due to both higher than expected receipts and lower than expected expenditure. A large proportion of the extra receipts reflects higher than expected activity and inflation, with the increase in income tax reflecting higher wage and salaries and higher VAT reflecting higher consumer spending. The undershoot on expenditure is partly accounted for by lower social security spending, largely as a result of lower unemployment than assumed at Budget time. Gross payments to the EC are also below profile due to the late payment of the Inter-Governmental agreement.

35. The LABR is £1.1 billion below profile which may reflect higher capital receipts than expected at Budget time due to council house sales. The PCBR is a £0.5 billion higher net repayment than forecast in the Budget profile. The main contributors to the higher than expected net repayment are the electricity, post office and water industries which may have benefited from the unexpectedly strong growth in the economy.

36. Excluding privatisation proceeds the ~~PSDR~~^{PSDR} in the first seven months of the financial year is £1.0 billion, £5.3 billion below the same period of last year.

37. The PSDR in the first ten months of 1988-89 is forecast to be £14.2 billion, compared to the £6.3 billion forecast in the Budget profile. The public sector usually borrows heavily in the final two months of the financial year. Nevertheless the Autumn Statement forecast of a PSDR of around £10 billion was on the cautious side. The October outturn suggests the October internal forecast of a PSDR of £12 billion is probably a more central estimate. At the end of October, when the PSDR projection was revised down, Inland Revenue receipts were lower than expected. Income tax receipts have turned out to be less buoyant than

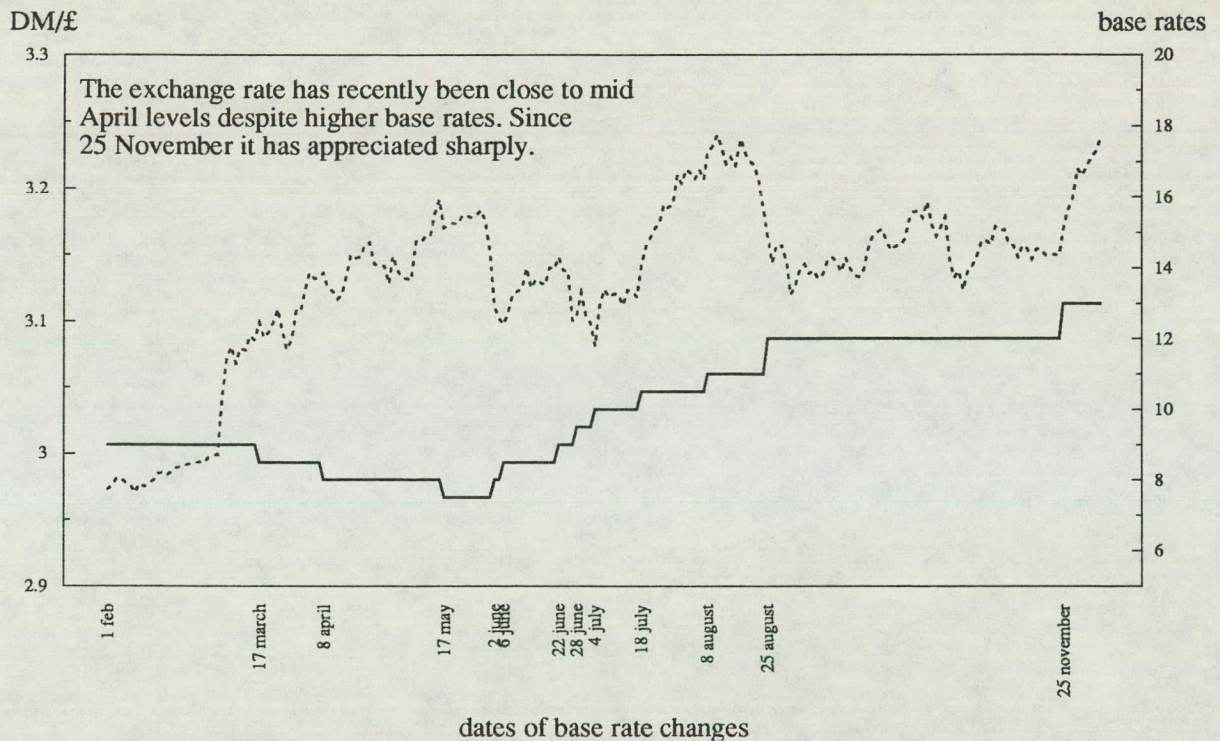
earlier in the year, and some CT payments normally made in October slipped into November. In the event the shortfall on Inland Revenue receipts has not been as great as anticipated.

38. Our view of the fiscal stance has not changed from last month. Most but not all of the $1\frac{1}{2}$ percentage points increase in the PSDR/GDP ratio compared with the Budget forecast can be explained in terms of the automatic effects of the upward revision to the forecasts for activity and prices.

D. Exchange Rate

Chart: The DM/£ exchange rate

DM/£..... Base rates _____



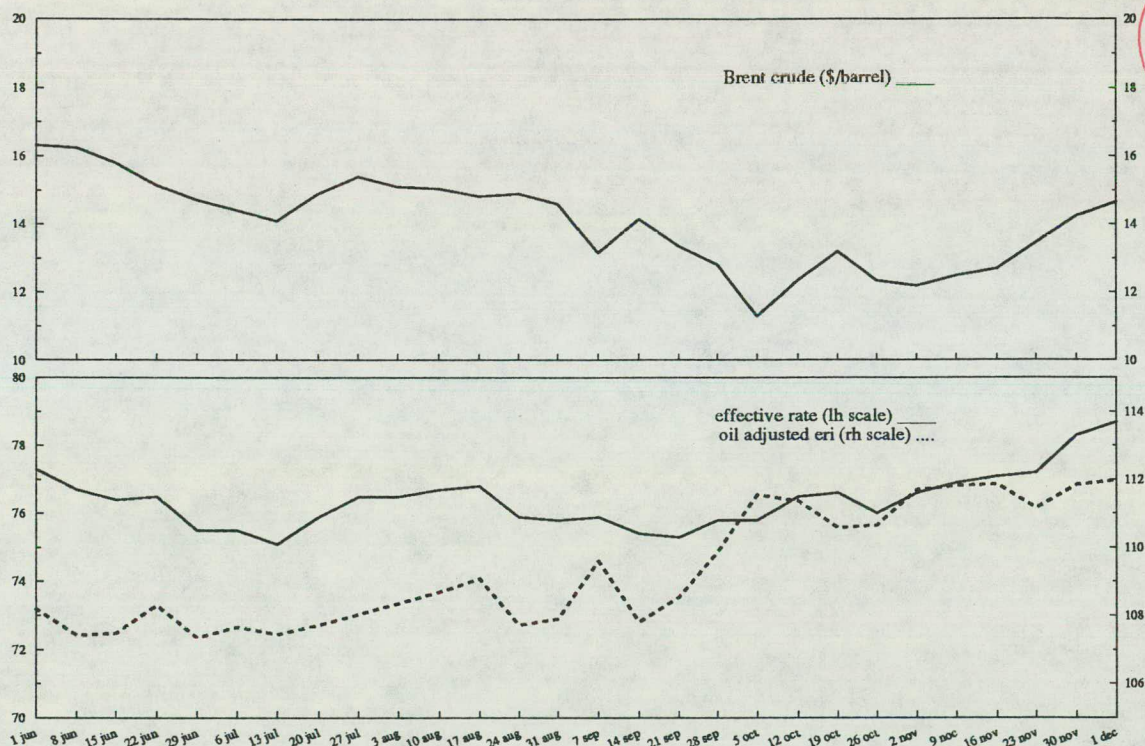
39. Since 2 November, sterling has risen $2\frac{3}{4}$ per cent to ERI 78.7, $4\frac{3}{4}$ per cent to \$1.8535, and $2\frac{1}{4}$ per cent to DM3.23. Sterling was on the sidelines at first as no new factors emerged. After dipping $1\frac{1}{2}$ cents on the announcement of the October trade figures on 25 November, sterling recovered quickly on expectations of a rise in interest rates to stand at ERI 77.0, \$1.83 and DM 3.14 $\frac{1}{2}$ at noon. Sterling moved up strongly following news of the 1 per cent rise in interest rates and made further gains on market comment

that a high exchange rate policy would be pursued. The Bank's market intervention totalled +\$1½ billion. (The underlying change in the reserves of +\$428 million in November includes off-market transactions and covers a slightly earlier period.)

40. The sterling index has risen 2¼ per cent to 78.7 from 76.6 at the time of the last assessment. But oil prices have risen sharply by over \$2 a barrel over the same period, with much of the rise coming after the OPEC agreement. The oil adjusted ERI has risen by 0.4 per cent, from 111.3 to 111.8 - a good deal less than the rise in the nominal rate. Import unit values rose by 0.6 per cent in October, rather faster than in the previous three months.

Chart: The oil adjusted exchange rate

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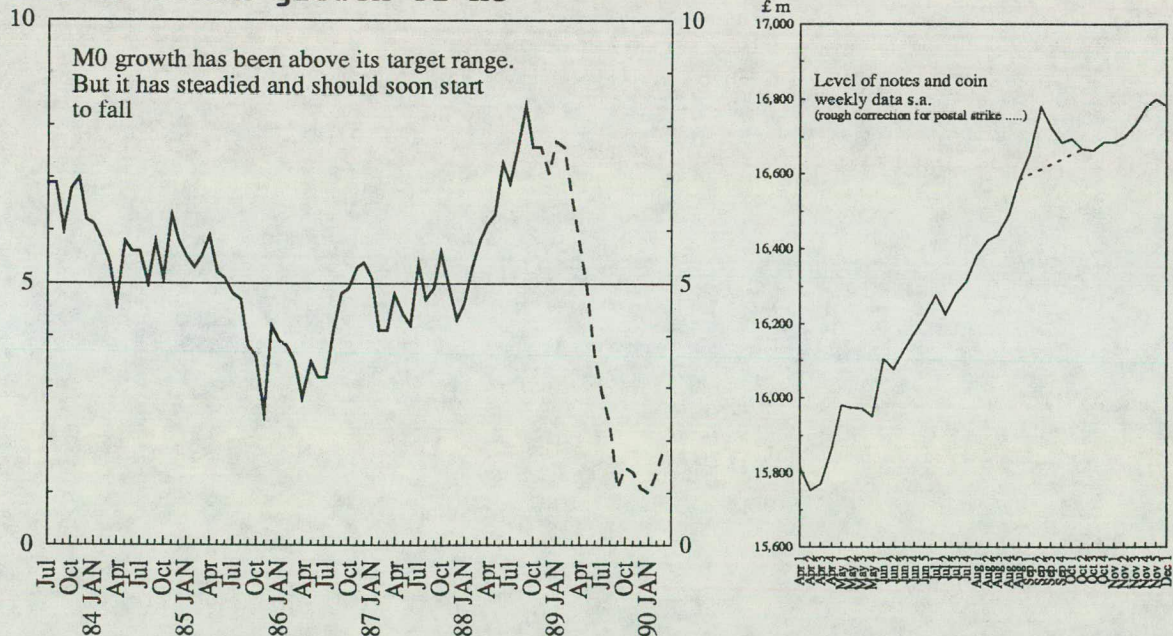


*how
in January*

E. Domestic Monetary and Financial Market DevelopmentsNarrow Money

41. We estimate that the 12 month growth rate of MO in November was 7.6 per cent (seasonally adjusted), with notes and coin increasing by 7.8 per cent. November will be the fourth month in a row with underlying 12 month MO growth at around this rate (table 17). We previously thought that September's MO growth was distorted upwards by at least 0.8 per cent because the Post Office itself was holding higher than normal quantities of notes and coin. The latest information from the Bank suggests that the distortion spilled over into the first week of October. This would lead us to increase our estimate of the distortion in September a little. October's growth would have been distorted upwards by rather less than 0.1 per cent.

Chart: 12 month growth of MO



42. The recent trend of weekly figures has shown little change in the underlying level of notes and coin since the end of August, let alone in the growth rate, although the notes and coin figures drifted up in the middle of November. The slow growth in notes and coin has not shown up in a slow down in the twelve month growth rate because of slow growth of MO last autumn. In the fourteen weeks since the end of August, MO has grown by 1.5 per

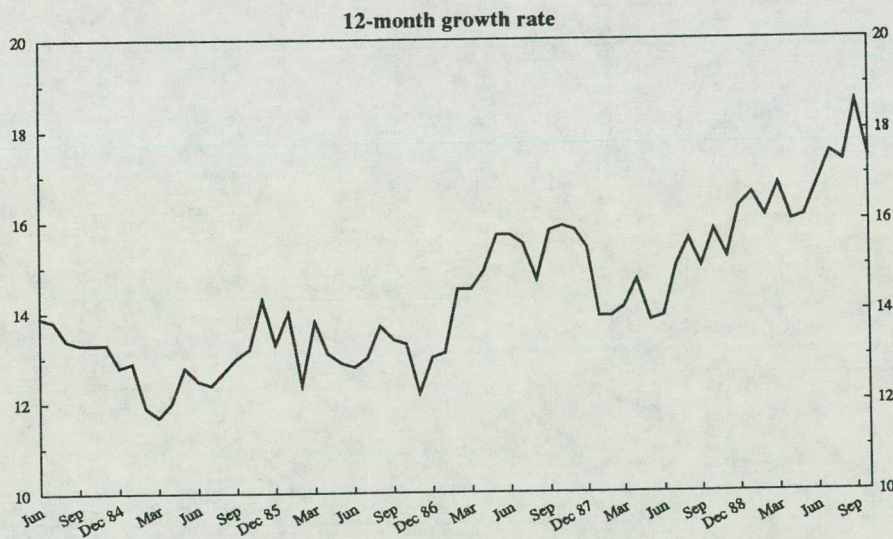
cent, equivalent to an annual rate of 5½ per cent. The increase for notes and coin alone has been 1.2 per cent since the end of August, equivalent to an annual rise of 4½ per cent. This is consistent with the view that interest rates are having their expected effect. Against this background the fast growth of retail sales in October is rather surprising. We still expect that M0 growth will remain outside its target range for the financial year, but to be a good deal lower in 1989-90 (table 26, chart preceding this paragraph).

which didn't happen

Broad Money

43. The 12 month growth of M4 fell back in October to 17.4 per cent from 18.6 per cent in September. The October figure was similar to the 12 month growth rates in July and August, but higher than the figures earlier in the year (chart 6). M4 increased by £4.1 billion (seasonally adjusted) (1.2 per cent) in October, rather below the average one month increase of the previous six months.

Chart: Broad money growth (M4)



44. Retail deposits in M4 increased by £2.9 billion (1.2 per cent) on a seasonally adjusted basis, the smallest increase since April. To some extent, this may represent an adjustment following the very large increase in September. Retail deposits in October

were 17.1 per cent higher than a year earlier. Wholesale deposits increased by £1.1 billion in October on a seasonally adjusted basis and were 1.1 per cent higher than in September. Wholesale deposits in October were 20 per cent higher than in October 1987. October's increase in wholesale deposits was low compared to the average of the previous six months, but the series is very erratic.

Banks' and Building Societies Retail Inflows

45. This month the increase in retail deposits favoured the building societies at the cost of the banks, reversing last month's pattern. After seasonal adjustment, banks' retail deposits increased by £1.1 billion (almost entirely non-interest bearing) compared with an increase of £3.1 billion in September, while building societies' retail deposits increased by £1.8 billion, well above the £1.1 billion increase of the previous month. Building society interest rates increased at the beginning of October, improving the competitiveness of their products, and this may account for their success in October. If this is the explanation, it tends to strengthen further the impression that flows between building societies and banks have become more interest sensitive recently.

46. At £1.6 billion (excluding interest credited) retail inflows to building societies, in October were at the highest monthly level recorded this year. Part of this is seasonal; October is traditionally a good month. On a seasonally adjusted basis, they were in line with the (high) monthly average over the year since the stock market crash. But the rise in base rates on 25 November is likely to lead to a further period of temporary uncompetitiveness versus banks during December, with the banks raising their retail deposit rates quickly, but building societies waiting until the next move on mortgage rates, probably at the beginning of January. The weekly figures show net retail inflows much lower in the two weeks to 24 November than in the early part of the month. This may partly reflect seasonal factors - November is usually a poor month. There may also be some impact from the

flotation of British Steel, though, to the extent this happens, it is likely to be concentrated at the very end of the month.

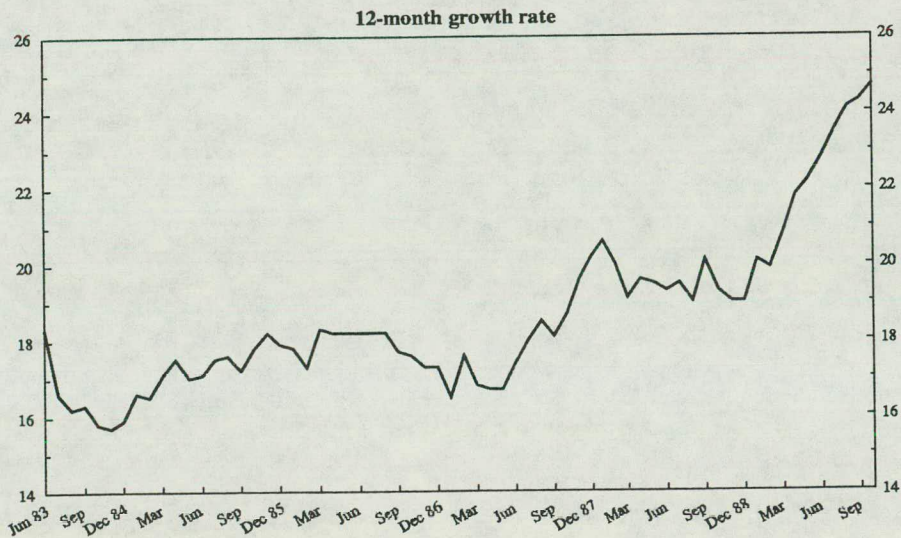
Building Societies' Wholesale Funding

47. Net Wholesale funding in October was less than £0.1 billion - the lowest monthly total so far this year. Eurobond funding was £75 million - a low figure like August's, and in sharp contrast to the record level in September. CDs were reduced by £0.3 billion.

Total Bank and Building Society Lending

48. Bank and building society lending increased by £6.1 billion (seasonally adjusted) in October, a much smaller increase than in September (£7.9 billion) and not much higher than in August (£5.9 billion) which we thought had been affected by erratically low borrowing by the company sector. With new building society lending little changed from September, the slower increase in M4 lending reflected slower growth of bank lending. Before seasonal adjustment, the increase in bank advances in October was £3.7 billion (of which CLSB banks accounted for £2.6 billion), compared with £7.1 billion in September (CLSB £4.9 billion). Although to some extent the slowdown reflects seasonal factors, it was none the less substantial.

Chart: Bank and building society lending growth



Mortgage Lending

49. Building societies' mortgage net lending in October was little changed from September, although around 25 per cent lower than the levels recorded over the June to August period. There was a small fall in gross lending (new advances), of some 4 per cent on September.

50. Building societies new commitments in October were marginally higher (in value by $1\frac{1}{2}$ per cent) than in September. This is surprising, on the face of things, given the rise in mortgage rates which took place on 1 October and the general picture of a slowdown emerging from the housing market. But, although the actual increases were not announced until the latter part of September, it had been known from 25 August (when base rates were raised) that the societies would raise mortgage rates substantially on 1 October, and this may have already been reflected in the commitment figures for September (which showed a 10 per cent fall compared with August). It is also worth stressing the magnitude of the reduction in new commitments which has occurred since the summer; the October figure represents a fall of one-third from the average level of May to July. The actual number of new commitments in October was 13 per cent below the level of October 1987.

51. The picture is in line with the CLSB analysis of banks' lending to persons for house purchase. Banks' mortgage lending increased by only £0.7 billion in October, the smallest increase since April, and nearly 40 per cent down on the levels recorded in the summer. In contrast to the building societies, banks' mortgage lending fell between September and October, by around £0.3 billion. Some of this is probably seasonal.

Other bank lending

52. A good part of the slow down in CLSB lending is accounted for by lending to the personal sector, which increased by $\frac{1}{2}$ billion in October compared to just over $\frac{1}{2}$ billion in September. Apart from the smaller increase in mortgage lending, lending for

consumption fell by £0.2 billion, the first significant fall for two years. Credit card debt fell by about £150 million. At first sight, these figures do not square with the sharp increase in retail sales in October. The DTI's seasonally adjusted consumer credit figures for October present the same paradox, with the first substantial fall in the amount of credit card lending outstanding this year and an increase in the total amount outstanding of only £81 million compared with £321 million in September and £518 million in August. The paradox might be resolved by noting the rather small increase in retail deposits in October. Consumers could be financing purchases at the margin by running down deposits rather than borrowing. But the current evidence is not decisive.

53. CLSB lending other than to persons rose in October by around £2 billion, more slowly than in September (£3-3½ billion), when the figures were affected by interest charging. Lending increased significantly in all identified sectors. CLSB banks share of the increases in advances was unchanged at about 70 per cent.

Funding

54. The PSBR was underfunded by £0.1 billion in October; the cumulative overfund in 1988-89 to date is £0.3 billion. The PSDR (net of other public sector debt sales) in October was £2.4 billion, compared with net purchases of gilts of £2.0 billion. The balance was largely accounted for by net surrenders of CTDs.

Broad Money Forecast

55. Our forecast of broad money growth last month was too high: we expected M4 growth to decline from 18½ per cent in September to 18¼ per cent, while in the event the decline was to 17½ per cent. We expect M4 to increase by around £6 billion (seasonally adjusted) in November, with M4 lending increasing by nearly £7 billion. The 12 month growth rate for M4 could rise again to around 18½ per cent, with the 12 month increase in M4 lending at about 25¼ per cent. The forecast is consistent with a small fall in the increase in building society lending.

56. November's broad money figures may be distorted by the British Steel flotation. Although cheques accompanying applications will not be cashed until after make-up day, applicants may draw down building society accounts in exchange for building society cheques in favour of the Treasury (not all building society accounts are chequeable) before make-up day in order to get them to the receiving banks in time. In addition some extra borrowing from banks may be arranged to finance purchases, leading to equal increases in both lending and deposits on make-up day. Our view is that these distortions will not be significant.

Interest Rates and Capital Markets

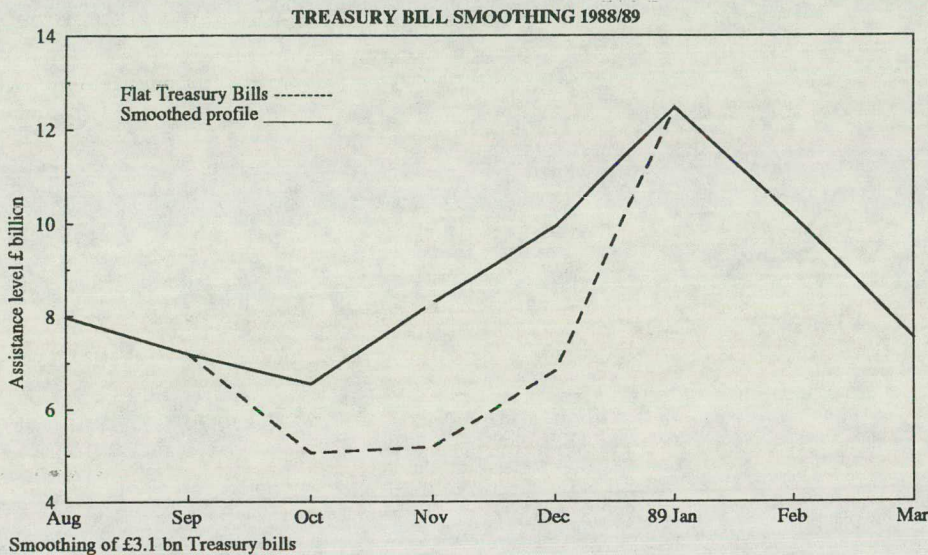
57. Market turnover for most of November was much the same as in recent months. But the record trade deficit and the 1 per cent rise in base rates on 25 November saw market turnover reach its highest level for weeks. **Money market interest rates**, which closed at 12.0 per cent for one month and 11.8 for 12 months on 31 October, now stand at 13 per cent for one month and 13.2 for 12 months.

58. The stock of **money market assistance** fell to £6.6 billion at the end of October, from £7.2 billion in September. It is projected to fall to £5.2 billion in November, mainly reflecting buying-in of gilts, before rising again to £6.1 billion in December. In order to relieve any exceptional money market shortage arising from the British Steel privatisation the Bank will, if necessary, lend to the receiving banks amounts over and above normal assistance. These loans must be repaid within four days of sending refund cheques and will therefore not affect the end month figures.

59. In order to smooth the level of money market assistance over the period to January, £1.5 billion of 3-month Treasury bills were issued in October, and £1.6 billion of 2-month bills in November. This has increased the amount of assistance required in the lead-up to the January peak, forecast at £12.5 billion. There is

no sign yet of large reselling of these Treasury bills, although £0.3 billion of 3 month bills were sold back at the end of October.

Chart: Money market assistance



60. **Gilts** ended October with the index at 89.04 and yields on shorts, medium and longs at 9.9, 9.6 and 9.1 per cent respectively. The index fell throughout November, although it recovered a little on the better than expected money figures. All sectors of the market have worsened. The rise in base rates on 25 November saw a fall and the index stands at 87.1, with par yields at 10.7, 10.1 and 9.4 per cent on 8 December, leaving the slope of the yield more strongly downward sloping.

61. Real yields on **index-linked stock** began the month at 3.7 per cent for medium dated and 3.6 per cent for the longest dated stocks and have remained at around these levels. Break-even inflation rates for index-linked Treasury 1990 and 2006 are currently 7.5 and 6.0 per cent, compared with 6.9 and 5.7 per cent at the beginning of the month. The **equity dividend yield** (based on the all-share index) stands at 4.7, a slight increase from the end of last month.

Sh & for of yield curve

62. Equity prices fell in November and early December, with the FT-Actaries index declining to 910 from 960 at the time of the last assessment. On 8 December equity prices were 12 per cent higher than a year earlier.

63. Net investment in unit trusts in October was £235 million, fairly high by post-crash standards, though far below the average increases of 1986 and pre-crash 1987. The Unit Trust Association reports that fund values under management have recovered by 21 per cent since their low point last November. Since last November the stock market has risen by about 12 per cent.

64. Sterling commercial paper outstanding increased by just under £200 million in October, more than in September (£65 million) and a little higher than in July and August. ICCs' sterling commercial paper outstanding increased by £125 million, the highest increase since May.

65. Domestic bond issues so far in November amount to less than £60 million, much lower than October's figure of £735 million, of which £479 million was accounted for by Grand Met. The fixed rate Eurosterling sector has been a little more active in November with £400 million raised, compared with £240 million October and only £75 million in September. Building societies have returned to this sector of the market, raising nearly £400 million in the last two months compared with £460 million in the first nine months of the year. Building societies have also raised £185 million in the FRN sector, the only issues to date in November.

66. Foreign currency bond issues by ICCs totalled £178 million in October, twice as much as in September and back to August's level. Their bond issues are estimated to be higher in November at £221 million. There were no foreign currency issues by OFIs in October; estimated issues in November total £62 million.

ANNEX: INDICATORS OF CONSUMERS' EXPENDITURE

Last month's assessment included an annex describing the EC/Gallup consumer confidence indicator. It concluded that the indicator was of some use in predicting retail sales. Normally changes in retail sales are preceded by changes in the indicator. The indicator has fallen sharply in recent months - from +9 in June to -5 in October. Against this background the sharp increase in the provisional estimate of retail sales in October was unexpected, although the consumer confidence indicator is by no means infallible. See Charts A1 and A2.

2. The EC/Gallup survey is not the only indicator of consumers expenditure. The CBI/FT survey ask a panel of distributors whether they expect sales to be higher or lower next month than a year earlier. The results are recorded as a percentage balance in the usual way. The most recent replies suggest some weakening of distributors' confidence. Chart A3 shows the actual 12 month change in retail sales and the CBI/FT indicator. The survey question asks directly about the expected 12 month increase in sales, and so should give a good indication of retail sales growth - there are no problems of interpretation as there are with the EC/Gallup indicator. But the forward looking CBI/FT indicator is a poor predictor of the 12 month growth rate of retail sales. Elementary statistical analysis suggests that the indicator more often gets the direction of the change in the growth rate wrong than right.

3. One possibility is that the replies given by the respondents to the survey are in fact just a measure of their current confidence rather than a precise answer to the question asked. This suggests comparing the survey indicator with the level of retail sales or its monthly change as we have done in the case of the EC/Gallup indicator. These comparisons are shown in Charts A4 and A5. They show no obvious relationship. Our experience with the CBI/FT indicator suggests it should be given no weight when projecting retail sales growth.

4. Another timely indicator of consumers expenditure is provided by the sales figures of the John Lewis Partnership (Chart A6). While it is highly unlikely that John Lewis's sales by product and region accurately reflect the pattern of the Retail Sales Index, their recent figures tend to support the estimated rapid growth of the Retail Sales Index in October. Sales seem to have been fairly weak in the middle of November, but they have picked up sharply in the latest week. Lewis's themselves sound a little disappointed by sales in recent weeks. On balance, the most that can be said is that sales in November this year show no signs of any startling increase; on the other hand they show no sign of any sharp slowdown.

5. The relationship between the John Lewis figures and the retail sales index has been investigated by EA1. The results are expected shortly.

6. Finally, it is worth bearing in mind that retail sales account for less than half of consumers expenditure. Apart from expenditure on housing (rent, rates, water) and charges for gas, electricity and telephones, the retail sales index also excludes services which alone account for 30 per cent of consumers expenditure. As charts A7 and A8 show, the retail sales index is at best only a fairly good indicator of consumers' expenditure.

Assessment

7. The October retail sales index was surprisingly high, given the evidence of the EC/Gallup consumer confidence survey and the CBI/FT survey of distributors. The John Lewis sales figures lend some support to the official figures. The EC/Gallup survey indicator for October fell again and the latest John Lewis figures for the middle of November were rather weak. What evidence we have is not consistent with markedly strong growth of retail sales in November.

Chart A1: indicator and retail sales

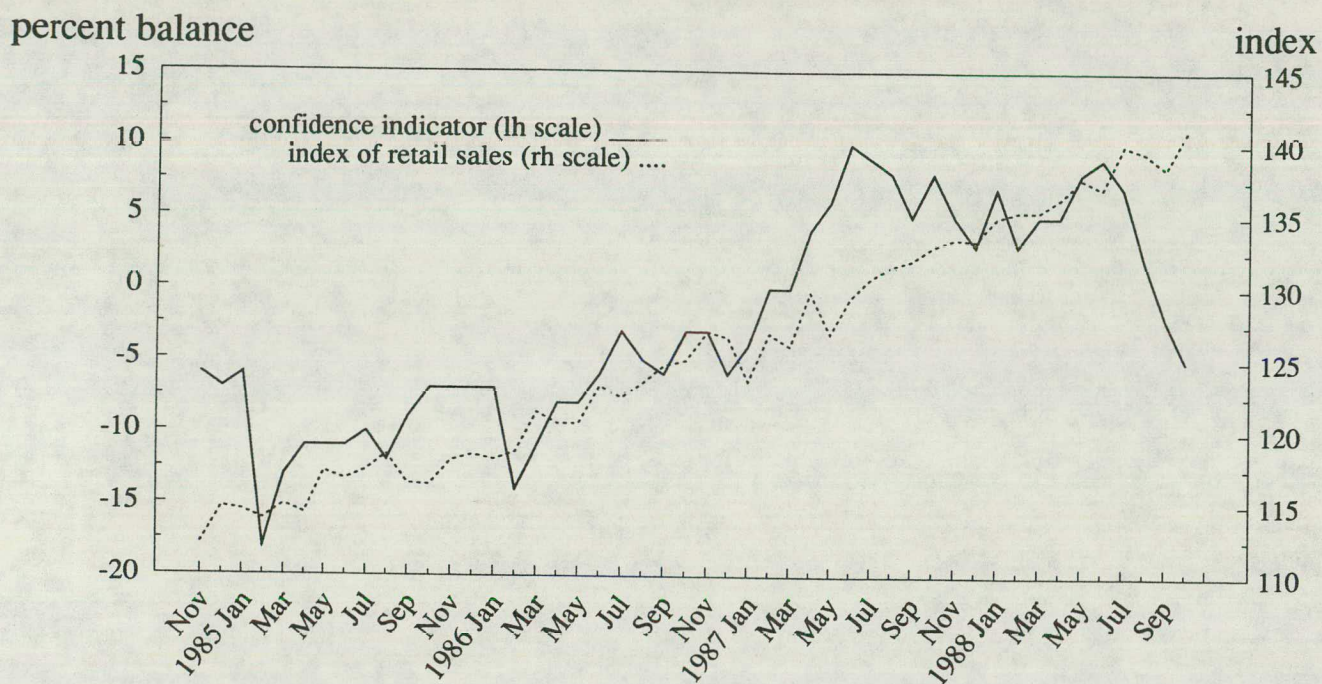


Chart A2: indicator and retail sales growth

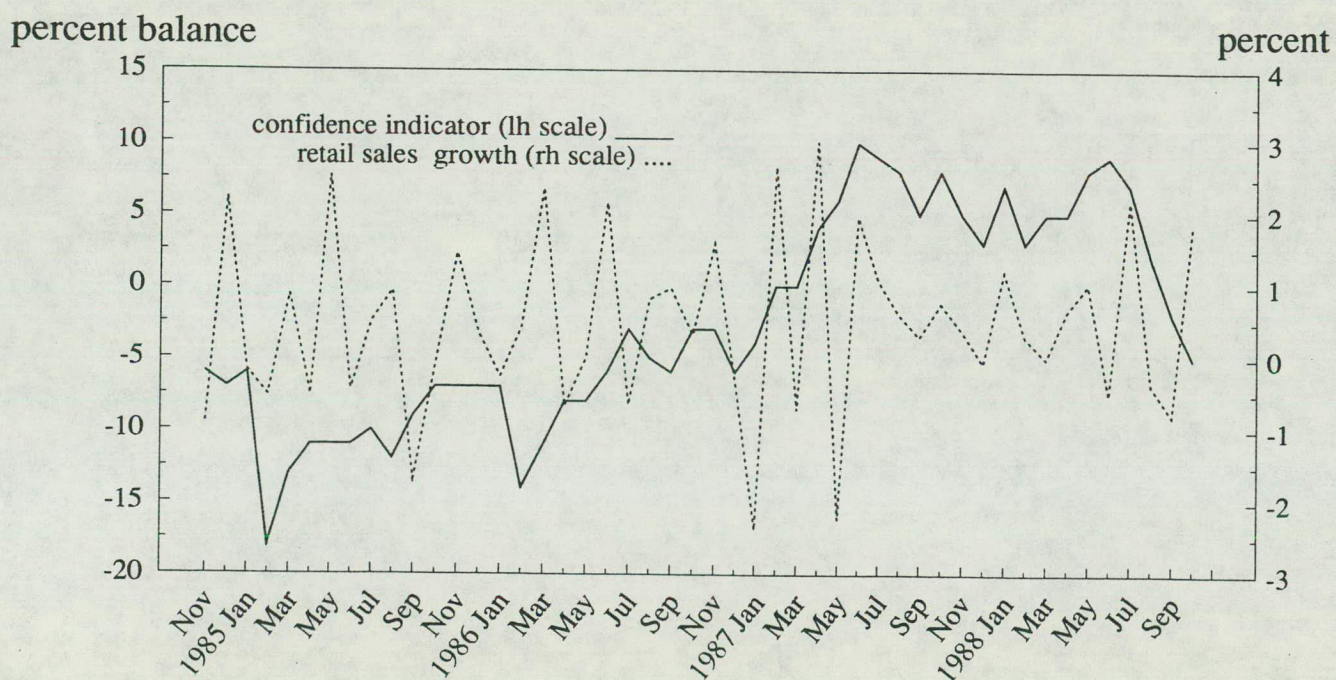


Chart A3

Retail Sales and CBI/FT Survey

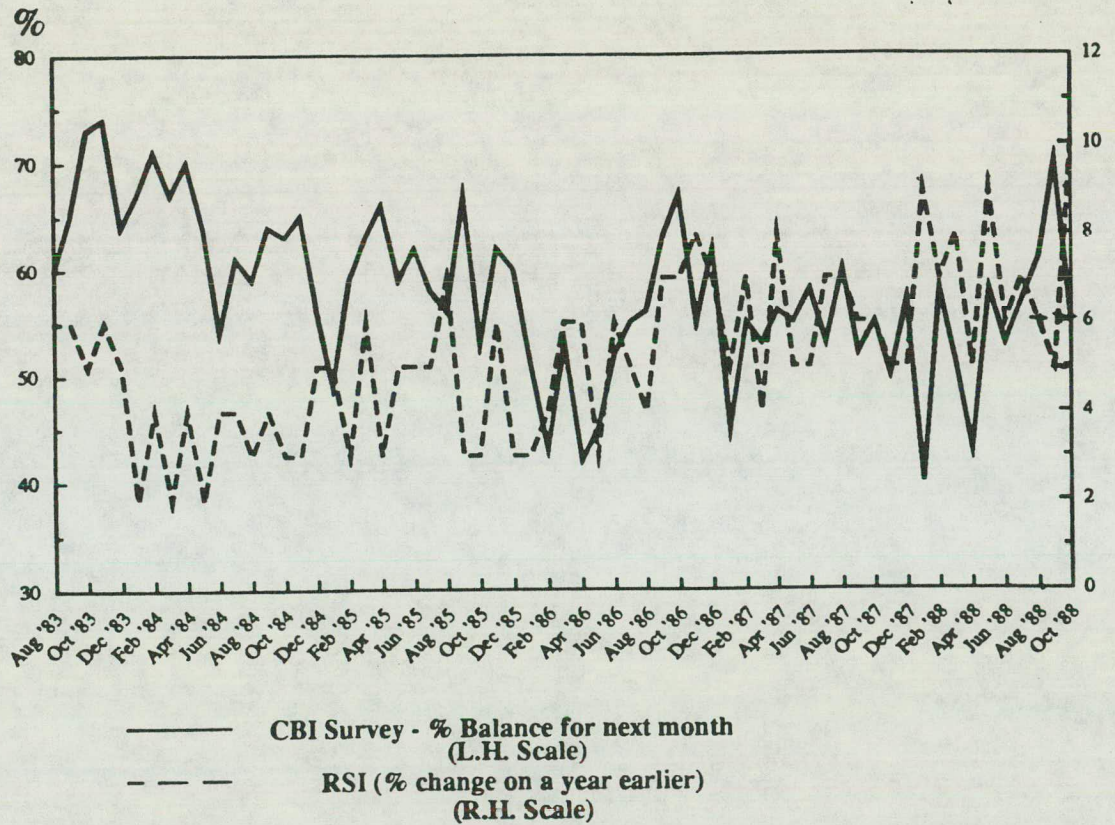


Chart A4

CBI/FT Indicator and retail sales index

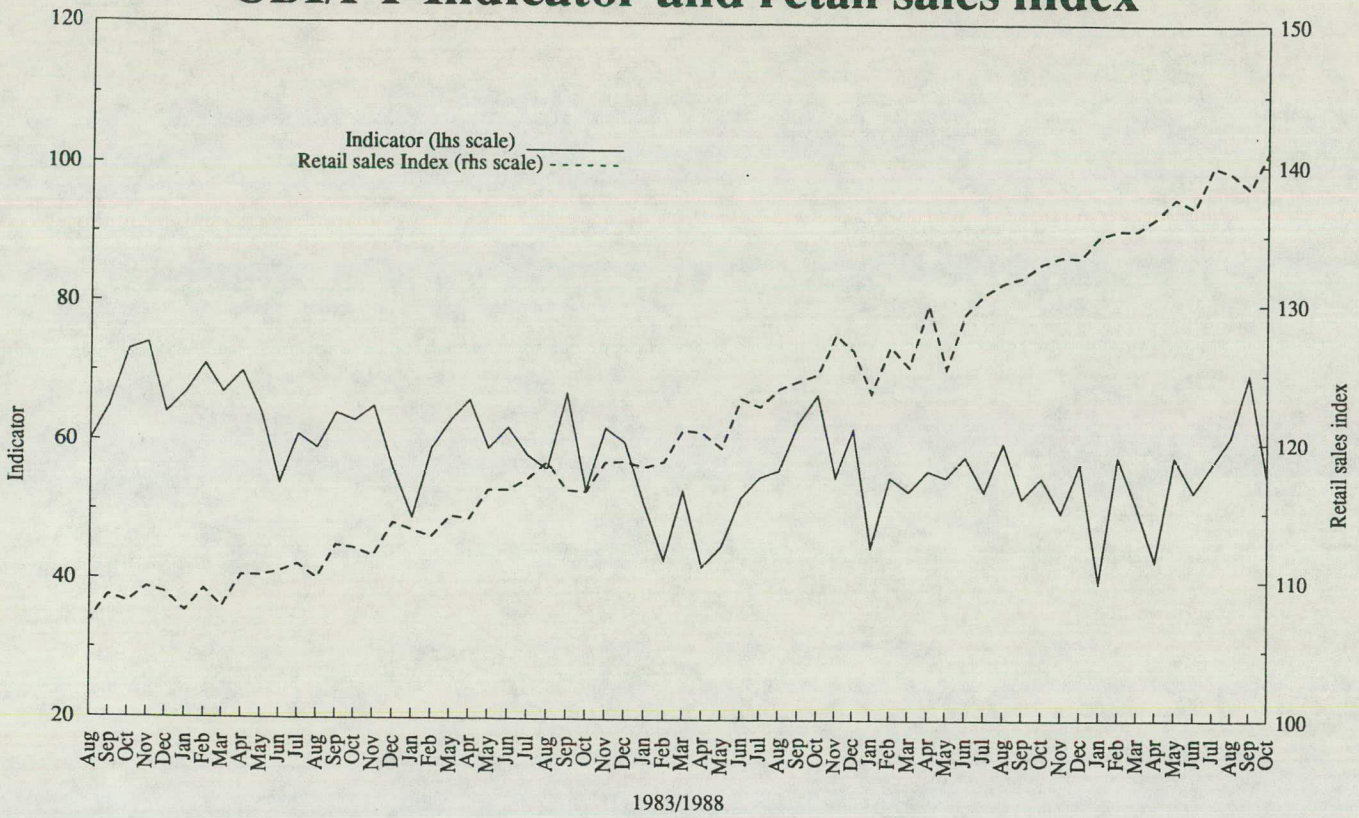


Chart A5

CBI/FT Indicator and Retail sales growth

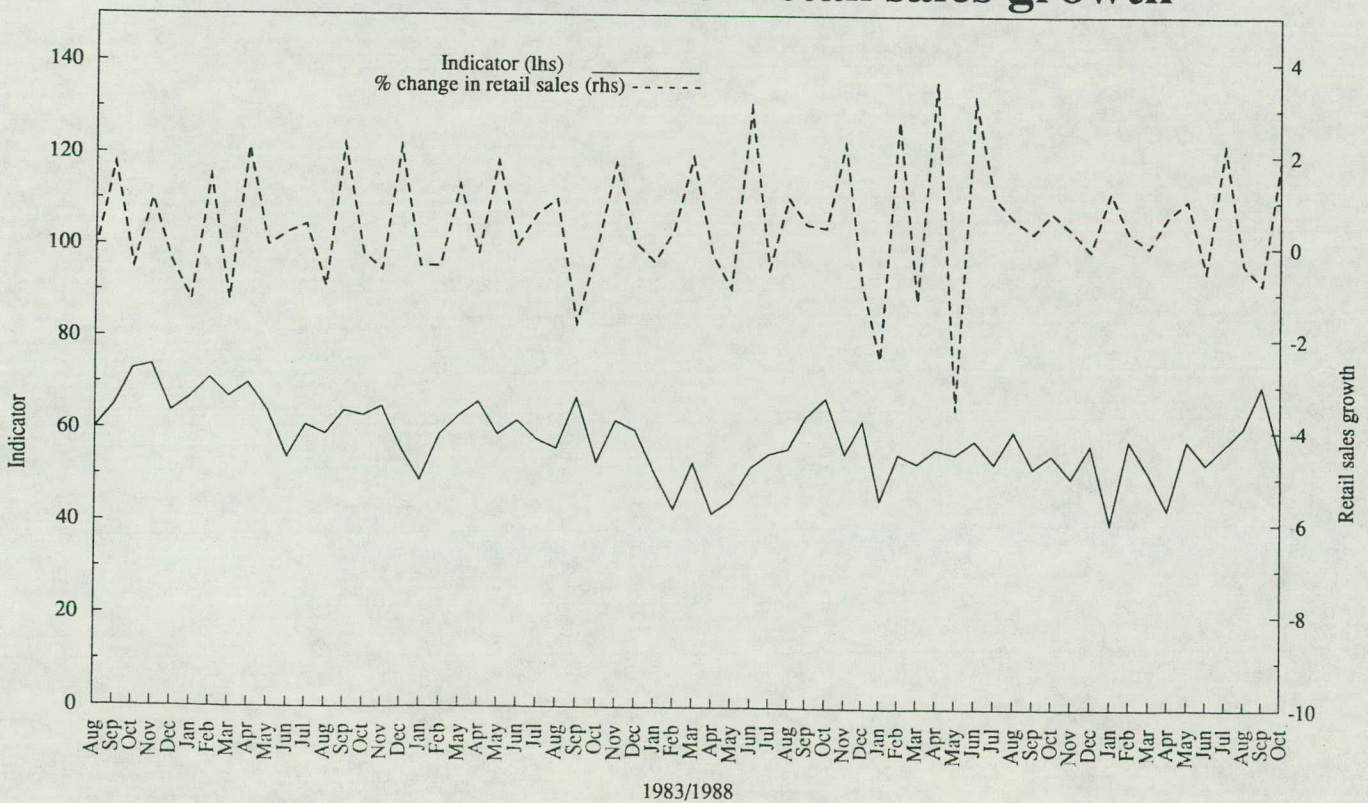



Chart AG

Total sales

	% increase on	
	1987-8	1986-7
	%	%
17th week ended 26 November	9.5	21.2
17 weeks to 26 November	10.6	22.6

The estimate of sales for the half year as a whole is for an increase of 11.3% above 1987-8.

1988-9 
 1987-8 
 1986-7 

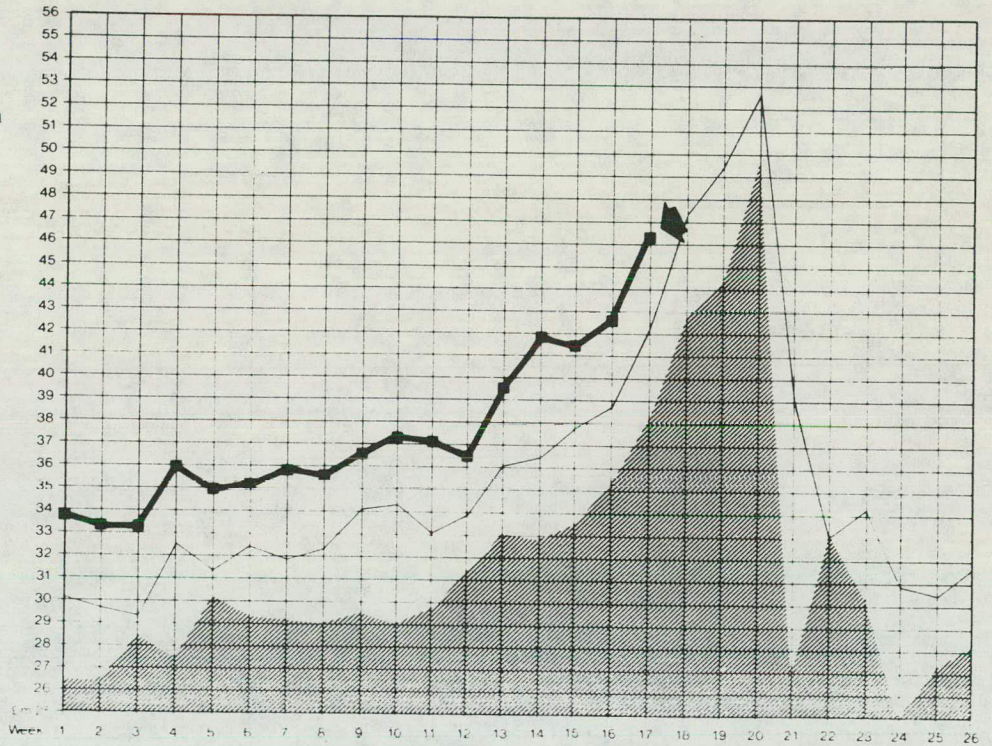


Chart A7

Consumers' Expenditure and Retail Sales

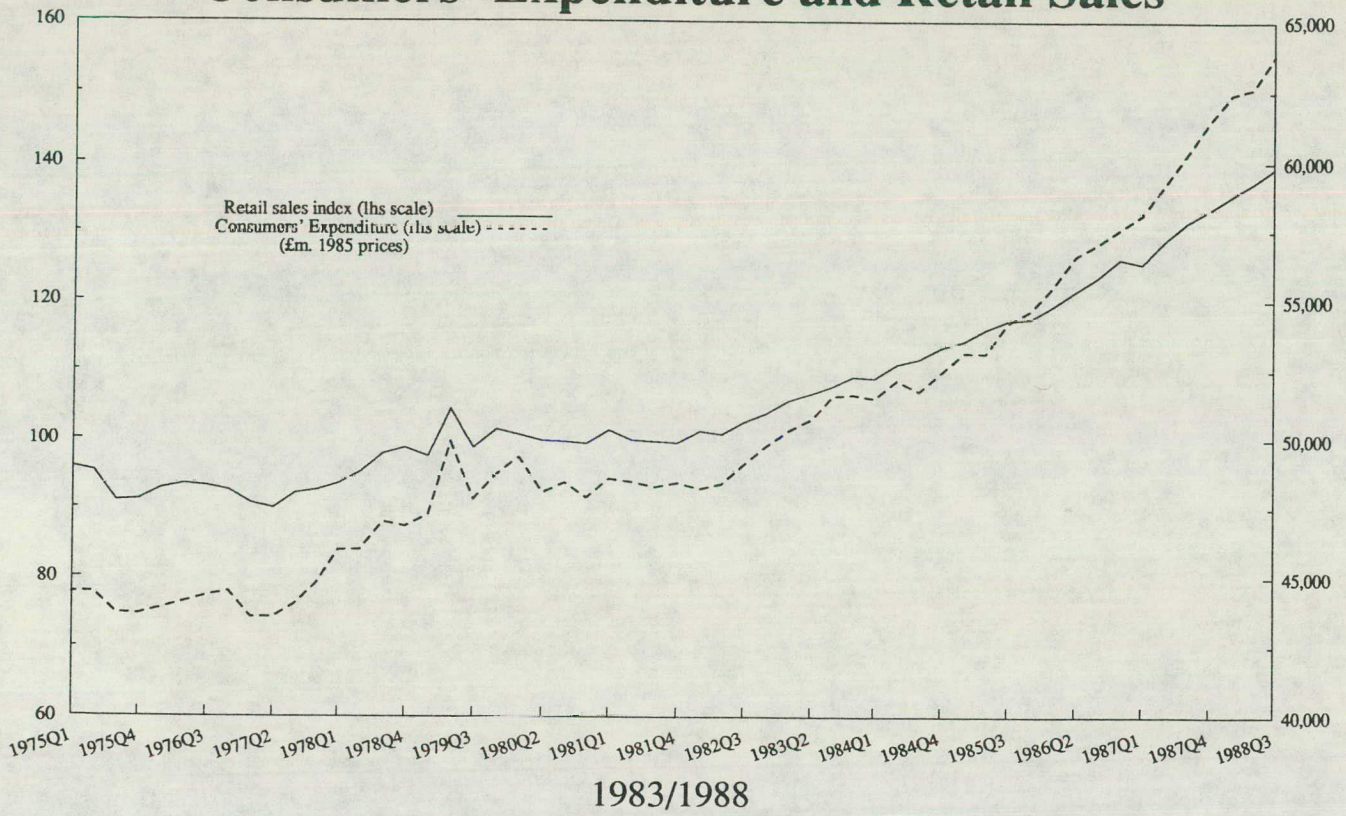
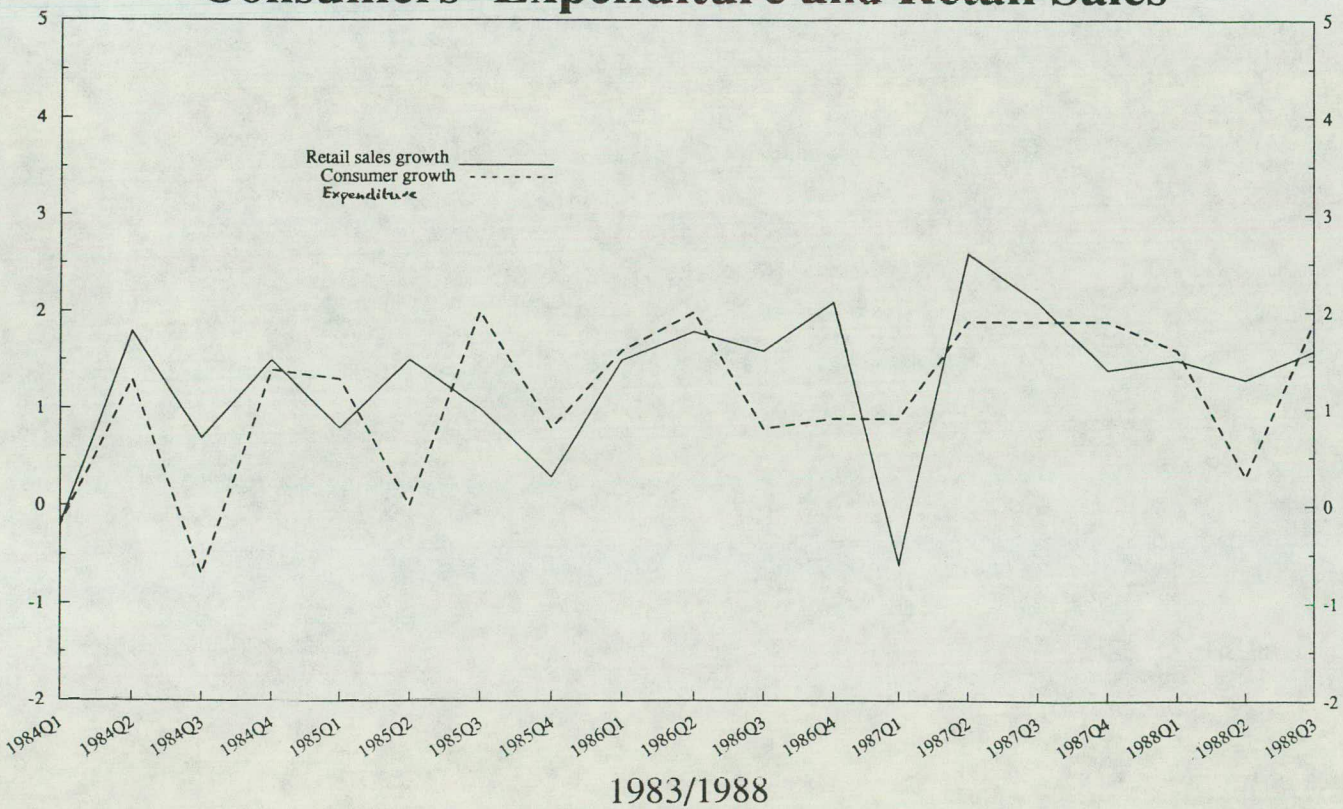


Chart A8

Consumers' Expenditure and Retail Sales



SECRET

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Table 1

GERMANY: KEY FIGURES

		INDUSTRIAL PRODUCTION* index		CONSUMER PRICES	TRADE SURPLUS** \$bn	MONEY SUPPLY (M3)*	
1984		3.0		2.4	1.7	3.7	
1985		4.9		2.2	2.2	4.7	
1986		1.7		- 0.2	4.5	5.8	
1987		0.3		0.2	5.5	7.1	
1987	Q1	- 0.9		- 0.5	5.4	7.4	
	Q2	0.1		0.1	5.3	7.9	
	Q3	- 0.2		0.6	5.4	6.9	
	Q4	1.9		1.0	5.9	6.1	
1988	Q1	3.8		0.9	5.2	6.0	
	Q2	2.5		1.0	6.8	6.4	
	Q3	4.3		1.2	6.1	6.4	
1988	Jan	3.8	109.0	0.7	6.5	(5.8)	5.8
	Feb	3.8	110.0	0.9	4.9	(5.8)	6.1
	Mar	3.8	110.0	1.0	4.3	(5.6)	6.1
	Apr	1.2	109.3	1.0	6.6	(5.9)	6.3
	May	1.5	109.6	1.1	5.7	(5.8)	6.3
	Jun	4.9	112.7	1.1	8.1	(6.0)	6.5
	Jul	2.3	108.8	1.0	6.7	(6.1)	6.1
	Aug	6.3	115.9	1.2	6.0	(6.2)	6.1
	Sep	4.4	112.7	1.4	5.5	(6.4)	6.9
	Oct			1.3			6.7
WEP Autumn							
<u>Forecasts</u>						Target	
1988		2.6	110.5	1.1	5.3		3-6***
1989		3.8	114.7	1.9	5.5		(6.8)

* Percentage change on a year earlier

** Yearly and quarterly figures are monthly averages. Monthly figures in brackets are 6 month moving averages.

*** Year to 1988Q4; bracketed figure is the growth in most recent two months over target base (1987Q4) expressed at an annual rate.

Table 2: Developments and prospects in the G7 countries*

	Activity			Money supply		Costs and prices		
	Nominal GNP	Real GNP	Industrial production	M1	M3**	Unit labour costs	Consumer prices	GNP deflator
1984	9.2	4.8	7.5	7.2	8.6	-0.3	4.5	4.2
1985	7.1	3.3	2.8	8.5	8.7	2.0	3.9	3.7
1986	6.2	2.7	1.1	10.5	8.5	1.9	1.9	3.4
1987	6.3	3.3	3.1	11.2	9.0	-0.1	2.7	3.0
1987 Q1	5.8	2.5	1.1	13.4	9.1	1.1	1.8	3.2
Q2	5.8	2.6	2.2	12.7	9.3	0.5	2.9	3.1
Q3	6.5	3.6	3.7	10.5	8.9	-0.1	3.2	2.8
Q4	7.3	4.3	5.4	8.5	8.7	-1.2	3.4	2.9
1988 Q1	7.4	4.7	6.2	6.9	8.4	-1.5	2.9	2.6
Q2	7.1+	4.1+	5.7	6.4	8.4	-0.2	2.9	2.9+
Q3			5.6	6.6+	8.8+		3.2	
1988 Jan			6.8	6.8	8.3		3.0	
Feb			6.0	6.9	8.4		2.9	
Mar			5.8	6.8	8.5		2.9	
Apr			5.8	6.5	8.4		2.9	
May			5.2	6.4	8.3		2.9	
June			6.0	6.5	8.4		2.9	
Jul			5.3	7.0	8.8		3.1	
Aug			6.2	6.4+	8.8+		3.2	
Sep			5.5+	6.5+	8.8+		3.3	
Oct							3.5	
WEP Autumn Forecast								
1988	7.5	4.1	5.7				3.0	3.1
1989	7.5	2.9	4.3				3.9	4.3

* Percentage changes on a year before.

** M2 + CDs for Japan

+ Partly estimated.

TABLE 3

THREE MONTH INTEREST RATES

	United States	Japan	Germany	France	UK	G7
1983	9.1	6.7	5.0	12.5	10.1	9.4
1984	10.1	6.5	6.0	11.7	9.9	11.0
1985	8.1	6.6	5.5	10.0	12.2	9.5
1986	6.5	5.1	4.6	7.8	11.0	9.2
1987	6.9	4.2	4.0	8.2	9.7	8.4
1987 Jan	5.8	4.3	4.6	8.4	11.0	6.6
Feb	6.1	4.2	4.0	8.5	11.0	6.6
Mar	6.2	4.2	4.0	8.0	10.0	6.4
Apr	6.5	4.1	3.9	8.0	9.8	6.5
May	7.0	3.8	3.8	8.2	8.8	6.6
June	7.0	3.9	3.7	8.2	9.0	6.7
July	6.7	4.0	3.9	7.9	9.2	6.6
Aug	6.8	4.0	4.0	7.9	10.1	6.8
Sept	7.4	4.2	4.0	7.9	10.1	7.1
Oct	8.2	4.8	4.8	8.2	9.9	7.6
Nov	7.4	4.3	3.9	8.6	9.0	7.0
Dec	7.8	4.5	3.6	8.7	8.7	7.2
1988 Jan	7.0	4.4	3.4	8.3	8.9	6.7
Feb	6.6	4.3	3.4	7.6	9.2	6.5
Mar	6.7	4.4	3.4	8.0	8.8	6.6
Apr	6.9	4.2	3.4	8.1	8.3	6.6
May	7.3	4.3	3.6	7.9	8.0	6.7
June	7.6	4.4	3.9	7.4	8.7	6.9
July	7.9	4.8	5.0	7.3	10.5	7.5
Aug	8.4	4.9	5.4	7.6	11.3	7.8
Sep	8.3	5.0	5.0	8.0	12.2	7.9
Oct	8.4	4.7	5.1	7.9	12.0	7.9
Nov 28	9.3	4.5	5.0	8.1	13.1	8.4

* CD rate for US and Japan, Interbank rates for rest.

EFFECTIVE EXCHANGE RATE INDICES (1975 = 100)

	United States	Japan	Germany	France	UK	YEN/\$	DM/\$
1980	93.7	126.4	128.8	94.4	96.0	225.8	1.82
1981	105.6	142.9	119.2	84.3	94.8	219.5	2.25
1982	118.0	134.6	124.4	76.6	90.4	248.8	2.43
1983	124.8	148.4	127.1	70.0	83.2	237.4	2.55
1984	134.6	156.7	123.8	65.7	78.6	237.5	2.85
1985	140.7	160.5	123.6	66.3	78.2	238.3	2.94
1986	114.8	203.1	137.3	70.1	72.8	168.3	2.17
1987	101.2	219.6	147.6	71.8	72.7	144.7	1.80
1986 Q1	121.2	186.8	133.1	71.0	75.1	188.2	2.35
Q2	116.0	202.8	134.7	69.0	76.0	170.0	2.24
Q3	111.4	214.8	138.6	69.5	71.9	156.0	2.09
Q4	110.5	208.0	142.6	70.8	68.3	160.3	2.01
1987 Q1	104.2	210.1	147.7	71.9	70.2	153.2	1.84
Q2	101.1	222.9	146.9	71.6	72.7	142.6	1.81
Q3	102.5	218.0	146.4	71.4	72.7	147.0	1.84
Q4	97.0	227.4	149.4	72.3	75.2	134.0	1.71
1988 Q1	94.2	240.2	149.6	71.9	75.4	128.1	1.68
Q2	93.5	245.4	147.7	70.9	77.6	125.7	1.71
Q3	99.0	239.5	143.9	69.0	75.9	133.6	1.86
1987 Jan	105.5	209.4	147.5	71.8	68.9	154.6	1.86
Feb	103.9	209.3	148.4	72.3	69.0	153.4	1.82
Mar	103.3	211.7	147.1	71.8	71.9	151.5	1.84
Apr	101.0	222.7	146.6	71.6	72.3	142.9	1.81
May	100.4	225.3	147.2	71.7	73.3	140.6	1.79
Jun	101.8	220.8	146.8	71.5	72.6	144.4	1.82
Jul	103.3	213.7	146.6	71.6	72.8	150.2	1.85
Aug	103.3	218.2	146.0	71.1	72.3	147.6	1.86
Sep	100.8	222.1	146.7	71.4	73.0	143.1	1.81
Oct	100.6	221.4	147.1	71.5	73.6	143.3	1.80
Nov	96.5	228.4	150.9	72.3	75.4	135.3	1.68
Dec	93.9	232.4	150.2	73.1	75.8	123.4	1.65
1988 Jan	93.0	239.5	150.4	72.5	75.0	127.9	1.65
Feb	95.0	239.5	149.1	71.8	74.3	129.2	1.70
Mar	93.6	241.6	149.3	71.5	76.8	127.1	1.68
Apr	92.7	245.0	148.9	71.3	78.2	124.9	1.67
May	93.0	246.2	147.9	71.1	78.4	124.8	1.69
Jun	94.8	244.9	146.2	70.4	76.2	127.4	1.76
Jul	98.1	239.2	144.2	69.5	75.6	133.1	1.85
Aug	99.5	240.6	143.1	68.6	76.5	133.7	1.89
Sept	99.5	238.8	144.4	68.8	75.5	134.5	1.87
Oct	96.7	246.0	144.9	68.9	76.3	128.9	1.82
Nov	93.8	252.8	146.2	69.4	77.1	123.1	1.75
Nov 30	92.6	253.5	145.9	69.3	78.3	121.8	1.74
% Change since dollar peak (Feb 85)	- 41.1	+ 61.4	+ 24.5	+ 11.8	+ 11.5	- 53.3	- 49.4
% Change since Plaza (Sept 85)	- 33.7	+ 61.9	+ 16.3	+ 3.1	- 4.5	- 49.7	- 40.2
% Change since Louvre Accord (Feb 87)	- 11.0	+ 21.2	- 1.6	- 4.0	+ 13.3	- 20.7	- 5.0

TABLE 5.

ECONOMIST COMMODITY PRICE INDICES

1985=100

Annual	All items indices				SDR indices		
	SDR	Dollar	Sterling	Real*	Food	Nfa**	Metals
1980	104.4	133.7	74.0	115.6	96.7	106.2	118.6
1981	99.3	115.2	73.5	105.3	93.7	104.7	106.2
1982	91.8	99.9	73.4	94.3	89.3	96.0	93.8
1983	107.2	112.7	95.7	110.4	102.0	116.6	110.1
1984	110.3	111.5	107.2	113.1	112.3	111.6	106.2
1985	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1986	89.8	103.7	90.6	86.4	92.4	89.9	85.4
1987	87.4	111.5	87.1	82.2	73.0	103.3	100.6
Quarterly							
1986 Q3	84.6	100.2	86.2	81.8	85.1	85.5	83.1
Q4	84.2	100.1	89.5	80.2	82.2	91.0	82.8
1987 Q1	81.0	100.8	83.5	76.5	73.2	95.2	84.3
Q2	84.9	108.2	84.4	80.7	73.2	102.6	92.1
Q3	90.2	113.4	90.0	84.6	70.7	111.9	108.0
Q4	93.4	123.7	90.3	87.0	74.7	103.3	117.9
1988 Q1	99.8	134.6	95.9	93.9	77.6	105.5	133.4
Q2	115.5	155.7	108.8	109.1	84.0	115.1	169.1
Q3	116.4	148.8	112.4	107.4	92.9	114.0	157.9
Monthly							
October	93.5	119.3	92.3		74.2	106.8	117.0
November	91.3	121.3	88.1		74.2	101.4	113.3
December	94.8	129.1	90.5		75.6	102.1	122.4
January	97.4	132.2	94.1		78.1	102.7	126.6
February	98.2	131.2	95.6		78.0	106.5	126.7
March	103.8	140.3	98.0		76.8	107.3	157.0
April	106.4	144.9	99.1		77.3	110.5	152.8
May	113.4	153.8	105.7		80.9	114.1	168.2
June	126.7	168.4	121.6		93.9	120.8	186.4
July	119.1	152.9	115.1		96.9	117.7	157.6
August	116.9	148.9	112.5		91.0	113.5	163.1
September	113.3	144.5	109.5		90.9	110.9	152.9
October	112.1	145.2	107.7		88.7	108.2	154.8
November(prov)	112.0	149.3	106.0		86.6	101.0	162.8
Weekly							
Oct 11	111.8	143.9	107.5		88.4	109.4	153.2
18	112.0	146.3	107.1		88.8	107.5	154.7
25	114.2	149.6	109.4		87.6	105.6	165.2
Nov 1	114.2	150.5	109.2		88.2	103.5	166.0
8	114.3	151.0	109.3		88.5	102.0	166.8
15	109.8	146.8	104.1		85.5	99.5	158.2
22	109.7	147.8	103.4		85.1	99.3	159.0
29(prov)	111.8	150.6	104.2		85.6	100.8	164.0
% ch. on one yr	+19.4	+19.7	+17.6		+11.7	-2.2	+41.7

* In relation to prices of manufactured exports. Recent figures are estimated.
 ** Non-food agriculturals.

TABLE 6

RECENT INDICATORS OF ACTIVITY AND INFLATION
(per cent changes on year earlier)

	MONEY GDP	OUTPUT AND ACTIVITY				PRICES AND		UNIT		LAEOUR COSTS	
		GDP (0)	MANUFACTURING OUTPUT	RETAIL SALES	RPI	RPI EXCL. MORTGAGE PAYMENTS	PRODUCER OUTPUT	PRICES** INPUT	UNIT MANUFACTURING	WAGE	COSTS WHOLE ECONOMY
1985-86	9.7	1986	2.9	0.9							
1986-87	6.9	1987	4.7	5.3	3.4	3.6	4.1	-10.5	4.5	5.5	
1987-88	9.8			5.9	4.1	3.7	4.4	5.0	0.8	4.4	
1986 Q1	8.0		2.3								
1986 Q2	6.6		1.9	-1.5	4.3	4.6	4.8	-11.3	8.3	6.1	
1986 Q3	5.8		3.2	-1.0	2.8	3.3	4.0	-13.5	6.6	6.7	
1986 Q4	7.2		3.9	0.7	2.6	3.3	3.8	-11.9	3.8	4.7	
1987 Q1	7.4		3.9	5.6	3.4	3.4	3.7	-5.0	-0.3	4.6	
1987 Q2	8.7		4.4	3.9	3.9	3.7	3.8	-0.7	1.1	4.1	
1987 Q3	11.5		5.2	6.3	4.2	3.7	4.4	5.4	-0.3	4.4	
1987 Q4	10.1		5.3	7.4	4.3	3.6	4.5	10.8	0.1	4.2	
1988 Q1	10.0		6.3	5.6	4.1	4.0	4.8	5.1	1.9	5.0	
1988 Q2	10.1		5.7	7.6	3.4	3.7	4.7	3.6	0.5	4.7	
1988 Q3			5.0	6.4	4.3	4.4	4.7	6.2	2.6	4.4	
				6.9	5.5	5.1	4.8	4.2	0.8	N/A	
1988-1989*	10.5-11.5										
1987 MAY			6.5	5.2	4.1	3.8	4.4	4.2			
JUNE			5.1	5.0	4.2	3.5	4.5	8.1			
JULY			6.7	6.9	4.4	3.7	4.5	12.4			
AUGUST			9.8	6.6	4.4	3.5	4.6	11.5			
SEPTEMBER			5.9	5.9	4.2	3.5	4.5	8.5			
OCTOBER			6.7	6.4	4.5	3.8	4.7	7.1			
NOVEMBER			5.2	5.1	4.1	4.0	4.8	4.6			
DECEMBER			4.8	5.4	3.7	4.0	4.8	3.6			
1938 JANUARY			10.2	9.2	3.3	3.7	4.8	2.8	-1.3		
FEBRUARY			4.9	6.7	3.3	3.6	4.7	3.8	2.0		
MARCH			7.7	7.5	3.5	3.8	4.7	4.1	1.1		
APRIL			5.2	5.0	3.9	4.2	4.6	4.8	3.7		
MAY			5.6	8.5	4.2	4.4	4.7	6.3	2.7		
JUNE			6.2	5.9	4.6	4.7	4.7	7.4	1.1		
JULY			7.3	7.0	4.8	5.0	4.8	4.7	0.5		
AUGUST			6.5	6.0	5.7	5.0	4.8	3.9	1.4		
SEPTEMBER			7.0	4.8	5.9	5.2	4.8	4.0	0.5		
OCTOBER				6.0	6.4	5.1	5.1	3.4			

* Autumn preliminary view

** Excluding food drink and tobacco

Output and sales growth figures boosted by 2.5-3 per cent on account of lower economic activity during exceptionally cold January of 1987

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TABLE 7

FORECASTS FOR REAL GDP AND RPI GROWTH
percentage increases on a year earlier

	HMT		OUTSIDE FORECASTS	
	latest internal	latest published	Independent average (2)	City average
GDP: 1988 (1)	4.2	4.3	4.4	3.6
1989	2.7	3.2	2.5	2.3
RPI: 1988 (Q4)	6.4	6.3	6.4	6.3
1989 (Q4)	5.2	5.0	5.2	4.7
: 1988 Nov	6.5			
Dec	6.9			
1989 Jan	7.1			
Feb	7.2			
Mar	7.3			
Apr	7.2			
May	7.5			
Jun	7.3			
Jul	7.1			
Aug	5.6			
Sep	5.8			
Oct	5.3			
Nov	5.1			
Dec	5.2			

(1) 1985 prices, at factor cost

(2) Average of NIESR, LBS, Philips & Drew, Goldman Sachs, Henley, Cambridge Econometrics, Liverpool, CBI, OECD, Oxford, EC

TABLE 8 INDICATORS OF FISCAL STANCE

	PSBR		PSBR EXCLUDING PRIVATISATION PROCEEDS		PSFD (1)	
	Cash £ billion	Ratio to GDP (per cent)	Cash £ billion	Ratio to GDP (per cent)	Cash £ billion	Ratio to GDP (per cent)
1970-71	0.8	1.5	0.8	1.5	-0.2	-0.4
1971-72	1.0	1.6	1.0	1.6	0.7	1.2
1972-73	2.4	3.6	2.4	3.6	2.0	3.0
1973-74	4.3	5.8	4.3	5.8	3.5	4.6
1974-75	8.0	9.0	8.0	9.0	6.0	6.7
1975-76	10.3	9.3	10.3	9.3	8.1	7.3
1976-77	8.3	6.4	8.3	6.4	7.4	5.8
1977-78	5.3	3.5	5.9	3.9	6.6	4.4
1978-79	9.2	5.3	9.2	5.3	8.3	4.8
1979-80	9.9	4.8	10.3	5.0	8.1	3.9
1980-81	12.5	5.3	12.9	5.5	11.6	4.9
1981-82	8.6	3.3	9.1	3.5	5.5	2.1
1982-83	8.9	3.1	9.4	3.3	8.4	3.0
1983-84	9.7	3.1	10.9	3.5	11.7	3.8
1984-85*	10.1	3.1	12.3	3.7	13.4	4.1
1985-86*	5.7	1.6	8.4	2.3	7.6	2.1
1986-87	3.4	0.9	7.9	2.0	8.7	2.3
1987-88	-3.6	-0.9	1.5	0.4	1.4	0.3
Autumn Statement forecast						
1988-89	-9.8	-2	-3.8		-4.3	-1

*If adjusted for coal strike, PSBR and PSFD ratios to GDP roughly 0.9 per cent lower in 1984-85 and 0.2 per cent lower in 1985-86.

(b) Quarterly Data

£ billion		PSBR		PSBR excluding privatisation		PSFD	
		sa*	ua	sa*	ua	sa+	ua
1985	Q2	1.2	2.7	2.5	3.9	2.9	4.0
	Q3	1.8	2.8	2.3	3.3	1.4	1.7
	Q4	1.4	2.0	2.0	2.5	2.2	0.5
1986	Q1	1.1	-1.9	1.6	-1.5	1.4	1.4
	Q2	2.3	2.4	3.4	3.5	2.1	3.2
	Q3	2.1	3.5	2.1	3.5	3.1	4.0
	Q4	-1.3	-1.7	0.9	0.5	1.5	0.6
1987	Q1	0.4	-0.9	1.6	0.3	2.5	2.1
	Q2	0.4	1.5	2.8	3.8	2.0	3.0
	Q3	0.0	0.5	1.6	2.0	0.4	1.6
	Q4	-2.3	-2.5	-1.2	-1.3	0.2	-2.0
1988	Q1	-1.7	-3.0				
	Q2	-2.2	-1.5	-1.7	-3.1	-0.6	1.2
				0.6	1.3	-0.7	-0.9

*financial year - constrained
+calendar year - constrained

Table 9: CGBR(O) April to October: Differences from Budget profile

	£ billion	percentage
Receipts		
Inland Revenue	+0.4	+1.2
Customs and Excise	+0.9	+3.3
NICs	+0.4	+2.3
Interest and dividends	+0.4	+7.0
Other receipts	+0.2	+13.0
Total receipts	+2.2	+2.6
Expenditure		
Privatisation proceeds	--	+0.8
Interest payments	+0.2	+2.6
Departmental expenditure ⁽¹⁾	-2.0	-2.5
Total expenditure	-1.7	-2.0
Net effect on CGBR(O)	-3.9	

⁽¹⁾ on a cash basis, net of certain receipts and on-lending

TABLE 10

HALIFAX STANDARDISED INDEX OF ALL HOUSE PRICES

	Index	Percentage Change On Previous Month	3 Month % Growth Annualised	Percentage Change On Previous Year
<u>Annual Data</u>				
1983	100.0			
1984	107.2			
1985	117.0			7.2
1986	129.9			9.1
1987	149.9			11.0
				15.4
<u>Quarterly Data</u>				
1987	Q1	140.5		14.8
	Q2	147.3		14.5
	Q3	152.6		14.7
	Q4	158.2		15.6
1988	Q1	164.9		17.3
	Q2	180.2		22.3
	Q3	198.9		30.3
<u>Monthly Data</u>				
1987	Aug	152.5	0.9	14.9
	Sept	154.0	1.0	14.8
	Oct	155.8	1.2	14.5
	Nov	159.1	2.1	16.2
	Dec	160.1	0.6	15.8
1988	Jan	159.8	-0.2	10.7
	Feb	164.3	2.8	13.7
	Mar	168.9	2.8	23.9
	Apr	174.5	3.3	42.2
	May	179.7	3.0	43.1
	June	185.5	3.2	45.5
	July	193.4	4.3	50.9
	Aug	199.3	3.1	51.3
	Sept	206.4	3.6	53.3
	Oct	209.4	1.5	37.4
	Nov	212.9	1.7	30.2
				33.8

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TABLE 11

		EXCHANGE RATES								
		Exchange Rate Index*	Real Exchange Rate [Ⓐ]	ERI/(Oil Price Adjusted ERI)†	Dollar: Sterling exchange rate	D-Mark: Sterling exchange rate	Index against EMS currencies*	Interest UK-US	rate differentials UK-Germany	Brent spot price (\$/bl)
1985	(1)	72.1	80.1	0.908	1.12	3.63	95.2	+4.1	6.9	27.7
	(2)	78.9	88.9	1.001	1.26	3.88	102.3	+4.4	6.8	27.0
	(3)	82.1	93.3	1.040	1.38	3.92	103.8	+3.6	6.7	27.4
	(4)	79.8	91.6	1.001	1.44	3.71	98.7	+3.5	6.8	28.3
1986	(1)	75.1	88.3	1.037	1.44	3.38	90.9	+4.5	7.8	17.8
	(2)	76.1	91.9	1.101	1.51	3.39	91.4	+3.2	5.6	12.8
	(3)	71.9	88.0	1.049	1.50	3.10	84.9	+3.8	5.4	12.4
	(4)	68.3	84.0	0.970	1.43	2.87	79.0	+5.1	6.5	14.8
1987	(1)	69.9	86.6	0.967	1.54	2.83	78.8	+4.3	6.5	17.9
	(2)	72.8	90.6	0.996	1.64	2.96	82.6	+2.1	5.4	18.6
	(3)	72.7	90.2	0.992	1.62	2.97	83.0	+2.8	5.8	19.0
	(4)	74.9	93.4	1.030	1.76	2.99	83.8	+1.2	4.6	18.1
1988	(1)	75.2	94.8	1.057	1.78	3.01	84.5	+2.2	5.6	15.7
	(2)	77.7	98.0	1.088	1.84	4.14	88.3	+1.0	4.7	16.2
	(3)	72.7	90.2	0.992	1.62	2.97	83.0	+2.8	6.2	19.0
1987	October	73.6	91.5	1.006	1.66	2.99	83.5	+1.7	5.1	18.8
	November	75.4	94.0	1.040	1.78	2.99	83.9	+1.0	5.0	17.8
	December	75.7	94.7	1.045	1.83	2.98	84.0	+0.9	3.7	17.7
1988	January	74.8	94.2	1.038	1.78	2.98	83.5	+1.8	5.5	16.7
	February	74.3	93.5	1.047	1.75	2.98	83.7	+2.6	5.9	15.6
	March	76.5	96.7	1.087	1.82	3.06	86.4	+2.1	5.4	14.8
	April	78.4	98.8	1.097	1.88	3.14	88.3	+1.2	4.9	16.4
	May	78.3	99.1	1.094	1.87	3.17	89.0	+0.5	4.5	16.5
	June	76.3	96.5	1.073	1.78	3.12	87.7	+1.3	4.9	15.8
	July	75.5	95.9	1.071	1.70	3.14	88.2	+2.4	5.6	15.0
	August	76.4	97.0	1.085	1.70	3.20	90.1	+2.8	5.9	14.8
	September	75.5	96.0	1.088	1.68	3.14	89.3	+3.9	7.2	13.3
	October	76.4	97.4	1.109	1.75	3.16	88.1	+3.5	6.9	12.6
	November	77.1	98.2**	1.116	1.81	3.16	90.5†	+3.6	7.2	13.0

† Oil price adjusted ERI of 1.0 has roughly the same inflation implications as does an ERI of 80 given an oil price of \$29 (their average values for January 1983 - November 1985). The ratio shown therefore indicates whether movements in the ERI are inflationary or otherwise, relative to the period Jan-1983 - Nov 1985, having allowed for oil prices.

* 1975=100

[Ⓐ]Figures for latest months are tentative forecasts based on extrapolated producer price indices

**estimate figure

† November 30

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TABLE 12

NOMINAL AND REAL INTEREST RATES

		NOMINAL RATES				REAL RATES				
		Three month interbank	Three month Eurodollar	Base Rate	Long Rate (20 year Gilts)	Expected inflation over 12 months*	Real 3-month interbank rate	Yield on Index-Linked Gilts**		
								1990	2001	2011
1985	(1)	13.0	8.9	12.9	10.9	5.7	6.9	4.4	3.5	3.2
	(2)	12.6	8.2	12.6	10.8	5.6	6.6	4.3	3.8	3.4
	(3)	11.7	8.1	11.7	10.4	5.3	6.1	4.3	3.8	3.5
	(4)	11.6	8.1	11.5	10.3	4.2	7.1	4.1	3.9	3.6
1986	(1)	12.4	7.9	12.3	10.2	3.9	8.2	4.3	4.2	3.8
	(2)	10.2	7.0	10.4	9.0	3.6	6.5	3.6	3.6	3.4
	(3)	10.0	5.2	10.0	9.7	3.4	6.5	3.7	3.9	3.5
	(4)	11.2	6.1	11.0	10.7	4.1	6.8	3.7	4.1	3.8
1987	(1)	10.6	6.3	10.8	9.6	4.3	6.0	3.0	3.7	3.5
	(2)	9.2	7.1	9.4	9.0	3.8	5.2	2.4	3.8	3.6
	(3)	9.9	7.1	9.7	9.8	3.7	6.0	2.6	4.2	3.9
	(4)	9.2	7.8	9.0	9.5	4.0	4.7	2.4	4.1	3.8
1988	(1)	9.0	6.9	8.7	9.4	4.1	4.8	2.2	4.0	4.0
	(2)	8.4	7.4	8.0	9.2	4.0	4.5	2.0	3.8	3.8
	(3)	9.9	7.1	9.7	9.8	3.8	5.9	2.6	4.2	3.9
	October	10.0	8.3	9.5	9.8	4.2	5.6	3.1	4.5	4.3
	November	8.9	7.4	9.0	9.2	3.8	4.9	1.9	4.0	3.3
	December	8.7	7.8	8.5	9.5	3.9	4.6	2.3	3.9	3.9
1988	January	8.9	7.1	8.5	9.6	4.1	4.6	2.3	4.2	4.1
	February	9.3	6.7	9.0	9.4	4.2	4.9	2.2	4.0	3.9
	March	8.9	6.8	8.5	9.1	3.9	4.8	2.2	3.9	3.9
	April	8.4	7.2	8.0	9.1	3.9	4.3	1.7	3.8	3.8
	May	7.9	7.4	7.5	9.3	3.9	4.5	2.0	3.7	3.8
	June	9.0	7.7	8.5	9.3	4.2	4.6	2.3	3.8	3.9
	July	10.6	8.2	10.1	9.5	5.2	5.3	2.5	3.9	4.0
	August	11.4	8.6	11.1	9.4	5.6	5.5	2.9	3.9	3.9
	September	12.2	8.4	12.0	9.6	5.9	5.9	3.1	4.0	4.0
	October	12.0	8.6	12.0	9.2	6.4	5.3	2.6	3.7	3.8
	November	12.3	8.8	13.0	9.3	7.1	5.2	2.8	3.6	3.7

* Unweighted average of forecasts by Phillips and Drew, National Institute, LBS, James Capel, Oxford Economic Forecasting and Goldman Sachs; the expected rate of inflation for a given month is the change in the price level between six months earlier and six months ahead. This is assumed to approximate roughly to average inflation expectations over the three months immediately ahead.

** Average of yields calculated for each Friday of month and quarterly for last Friday in each month. Assumes inflation averages 5 per cent per annum to redemption.
All figures except base rate are averages over the month/quarter; base rates are end month

TABLE 13 CURRENT ACCOUNT

percentage change on previous year

	Export Volume less oil and erratics	Import Volume less oil and erratics	Terms* of Trade(AVI) 1980=100	Current balance fmn
1982	0.8	8.7	0.0	4685
1983	-0.6	10.3	-0.6	3831
1984	8.6	10.8	-1.1	2022
1985	6.8	4.0	1.6	3338
1986	2.3	6.0	-0.6	-198
1987	6.7	8.5	1.0	-2504
1987 Q1	9.4	3.1	-1.8	845
Q2	5.5	8.8	0.7	-355
Q3	8.7	11.5	1.4	-1103
Q4	3.7	10.0	3.1	-1891
1988 Q1	0.5	13.7	3.1	-2842
Q2	5.7	14.0	1.7	-3002
Q3	5.9	14.6	3.7	-4129**
1987 Dec	3.3	11.0	3.0	-776
1988 Jan	7.4	17.8	3.0	-1023
Feb	-8.3	11.6	3.2	-1166
March	3.1	11.8	3.1	-654
April	6.1	17.9	3.0	-731
May	5.3	8.7	0.7	-1206
June	5.7	16.0	0.5	-1066
July	5.6	24.6	3.0	-2187**
August	3.8	5.9	4.3	-1348**
September	7.2	13.9	2.3	-594**
October	2.6	22.6	1.7	-2429**

* Excluding oil and erratics.

**Includes invisibles projection from July 1988.

TABLE 14

CONFIDENTIAL

KEY MONETARY INDICATORS

	1987	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	<u>Jan88</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>	<u>Oct</u>
<u>MONETARY AGGREGATES</u>														
12-month % change (u/a)														
M0		5.5	4.9	4.2	4.8	5.3	6.4	5.9	5.7	7.7	7.0	7.8	8.1	7.7
M3		22.5	21.5	22.9	22.5	20.6	20.9	19.4	18.6	20.3	20.6	20.0	22.6	19.8
M4		15.8	15.3	16.3	16.6	16.1	16.8	16.0	16.1	16.8	17.5	17.3	18.6	17.4
M5		15.3	14.7	15.9	16.3	15.7	16.6	15.7	15.5	16.2	16.8	16.5	17.9	16.6
<u>STERLING LENDING</u>														
12-month % change (u/a)														
Banks		22.7	22.2	22.6	24.6	24.2	25.1	26.9	26.8	27.4	27.9	27.8	28.0	28.1
Banks & Building Societies		19.3	19.0	18.8	20.0	19.9	20.7	21.9	22.2	22.7	23.6	24.0	24.3	24.7
<u>OVER(-)/UNDER(+) FUNDING</u>														
Financial year to date: mn														
		2670	121	1721	-5193	-6649	-1292	-1484	-1072	-449	-585	-1396	-415	-297
<u>MONEY MARKET ASSISTANCE</u>														
Level Outstanding: mn														
		5403	7073	7221	12507	13425	9673	10074	9572	8877	8141	7975	7189	6549
<u>INTEREST RATES</u>														
3-Month Interbank														
		10.0	8.9	8.7	8.9	9.3	8.9	8.4	7.9	9.0	10.6	11.4	12.2	12
20-Year Par Yield														
		9.8	9.2	9.5	9.6	9.4	9.1	9.1	9.3	9.3	9.4	9.4	9.6	9.2
<u>EFFECTIVE EXCHANGE RATE</u>														
		73.6	75.4	75.7	74.8	74.3	76.5	78.4	78.3	76.3	75.5	76.4	75.5	76.4

TABLE 15

GROWTH RATES OF MONETARY AGGREGATES

S E C R E T (Until Publication)

£ million

		1987	NOV	DEC 1988	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV
M0 -	Monthly change	sa	49	139	-46	-18	133	139	77	185	141	160	254	-16	38
	Monthly % change	nsa	0.3	7.0	-6.0	-1.0	1.8	1.7	0.1	1.2	2.2	0.8	0.4	-0.6	0.5
	Monthly % change	sa	0.2	0.9	-0.3	-0.1	0.9	0.7	0.7	1.0	0.9	1.0	1.5	-0.1	0.2
	6-month annualised % change	sa	7.0	8.5	5.2	4.4	4.7	4.7	5.7	6.1	8.6	10.9	12.4	10.7	9.6
	Annual % change	sa	4.9	4.3	4.6	5.3	5.8	6.1	6.3	7.3	6.9	7.6	8.4	7.6	7.6
M3 -	Monthly change	nsa	1187	2582	-2027	688	8623	1480	2568	5088	5794	1543	6441	1979	
	Monthly % change	nsa	0.7	1.4	-1.1	0.4	4.7	0.8	1.3	2.6	2.9	0.7	3.1	0.9	
	Monthly % change	sa	-0.1	1.4	0.6	0.5	3.0	1.6	0.6	2.4	2.7	0.8	3.3	1.3	
	6-month annualised % change	sa	21.9	21.7	17.9	15.9	19.5	14.8	16.4	18.8	24.0	24.8	25.5	24.5	
	Annual % change	nsa	21.5	22.9	22.5	20.6	20.9	19.4	18.6	20.3	20.6	20.0	22.6	19.8	
M4 -	Monthly change	nsa	1504	4895	434	1375	9658	2033	4243	6803	8080	2410	7491	2739	
	Monthly % change	nsa	0.5	1.6	0.1	0.5	3.2	0.6	1.3	2.1	2.5	0.7	2.2	0.8	
	Monthly % change	sa	0.3	1.3	0.3	1.0	2.2	1.1	0.9	1.9	2.2	1.2	2.3	1.2	
	6-month annualised % change	sa	17.3	16.8	14.0	13.3	15.5	13.0	14.4	15.8	20.2	20.6	20.7	20.9	
	Annual % change	nsa	15.2	16.3	16.6	16.1	16.8	16.0	16.1	16.8	17.5	17.3	18.6	17.4	
M5 -	Monthly change	nsa	1458	5204	120	1103	10601	1560	4241	6725	8262	2393	7678	2491	
	Monthly % change	nsa	0.5	1.7	0.0	0.3	3.3	0.5	1.3	2.0	2.4	0.7	2.2	0.7	
	Monthly % change	sa	0.3	1.3	0.4	0.9	2.2	0.8	0.9	1.8	2.1	1.1	2.2	1.1	
	6-month annualised % change	sa	16.7	16.3	13.7	12.9	15.4	12.3	13.9	15.1	19.0	19.5	19.5	20.0	
	Annual % change	nsa	14.7	15.9	16.3	15.6	16.6	15.7	15.5	16.2	16.8	16.5	17.9	16.6	
NIBM1 -	Monthly change	nsa	440	390	-1383	861	2152	4	1147	503	136	-274	1267	-199	
	Monthly % change	nsa	1.0	0.9	-3.1	2.0	4.8	0.0	2.5	1.1	0.3	-0.6	2.6	-0.4	
	Monthly % change	sa	-2.4	-0.2	3.7	1.4	1.2	-0.1	1.2	-0.1	0.9	-0.1	2.5	2.4	
	6-month annualised % change	sa	14.0	4.2	11.5	14.1	15.5	7.3	15.3	15.5	9.4	6.0	8.9	14.3	
	Annual % change	nsa	10.2	10.2	11.8	12.6	15.2	13.8	13.4	10.8	10.8	10.5	12.6	11.4	
M1 -	Monthly change	nsa	456	-258	-967	-264	5158	1081	2449	1538	618	-657	3289	310	
	Monthly % change	nsa	0.5	-0.3	-1.1	-0.3	5.7	1.1	2.5	1.5	0.6	-0.6	3.3	0.3	
	Monthly % change	sa	-1.1	-1.0	2.3	-0.4	3.6	1.2	2.0	0.8	1.0	-0.4	3.0	1.7	
	6-month annualised % change	sa	24.9	15.6	17.9	13.4	17.9	9.6	16.5	20.8	17.6	17.7	16.4	17.6	
	Annual % change	nsa	21.9	23.0	21.9	21.0	21.0	21.2	19.9	18.6	17.9	15.7	17.4	13.9	

 REAL PERCENTAGE GROWTH RATES OF MONETARY AGGREGATES

	RPI less Mortgage Element	Weekly Averaged M0	M3	M4	M5
FINANCIAL YEARS (12 month % changes to calendar March)					
1981-82	9.8	-6.5	4.2	3.7	3.0
1982-83	5.9	-0.6	5.4	7.9	8.0
1983-84	4.6	0.8	3.3	6.8	6.1
1984-85	5.2	0.3	6.0	8.2	8.2
1985-86	4.0	-0.5	12.2	10.1	9.1
1986-87	3.8	0.3	14.8	9.9	9.3
1987-88	3.8	1.9	16.5	12.5	12.3

12 MONTH % CHANGES (ua except M0)

1987	OCTOBER	3.8	1.7	18.0	11.6	11.1
	NOVEMBER	4.0	0.9	16.8	10.8	10.3
	DECEMBER	4.0	0.3	18.2	11.8	11.4
1988	JANUARY	3.7	0.9	18.1	12.4	12.2
	FEBRUARY	3.6	1.6	16.4	12.1	11.6
	MARCH	3.8	1.9	16.5	12.5	12.3
	APRIL	4.2	1.8	14.6	11.3	11.0
	MAY	4.4	1.8	13.6	11.2	10.6
	JUNE	4.7	2.5	14.9	11.6	11.0
	JULY	5.0	1.8	14.9	11.9	11.2
	AUGUST	5.0	2.5	14.3	11.7	11.0
	SEPTEMBER	5.2	3.0	16.5	12.7	12.1
	OCTOBER	5.1	2.4	14.0	11.7	10.9

TABLE 17

CONFIDENTIAL (Until Publication)

MO : THE WIDE MONETARY BASE

Monthly data		Level # million (Change in brackets)					Percentage change on previous month		6 month % growth annualised		Percentage change on previous year					
		Notes and Coin (nsa)	Coin (sa)	Bankers' Deposits	MO (nsa)	MO (sa)	Notes(sa) and Coin	MO (sa)	Notes & Coin (sa)	MO (sa)	Notes and Coin (nsa)	Coin (sa)	MO (nsa)	MO (sa)		
1988	January	15457	15615	(-37)	181	15638	15796	(-42)	-0.2	-0.3	6.0	5.2	4.7	4.5	4.8	4.6
	February	15352	15660	(45)	124	15476	15783	(-13)	0.3	-0.1	5.3	4.4	5.7	5.7	5.3	5.3
	March	15588	15756	(96)	163	15751	15919	(136)	0.6	0.9	5.0	4.7	6.9	6.3	6.4	5.8
	April	15796	15801	(45)	229	16025	16030	(111)	0.3	0.7	4.4	4.7	5.8	6.0	5.9	6.1
	May	15870	15969	(168)	178	16048	16147	(117)	1.1	0.7	5.8	5.7	6.0	6.6	5.7	6.3
	June	16073	16140	(171)	174	16247	16314	(167)	1.1	1.0	6.3	6.1	7.5	7.1	7.7	7.3
	July	16411	16273	(133)	188	16599	16461	(147)	0.8	0.9	8.6	8.6	7.5	7.3	7.0	6.9
	August	16577	16462	(189)	156	16733	16618	(157)	1.2	1.0	10.5	10.9	8.1	7.9	7.8	7.6
	September	16629	16711	(249)	164	16793	16874	(256)	1.5	1.5	12.5	12.4	8.3	8.7	8.1	8.4
	October	16506	16677	(-34)	186	16691	16863	(-11)	-0.2	-0.1	11.4	10.7	7.9	7.9	7.7	7.6
	November	16606	16739	(62)	166	16772	16905	(42)	0.4	0.2	9.9	9.6	8.1	7.8	7.9	7.6
	December (1/4) ^a	17121	16782	(43)	170	17291	16952	(47)	0.3	0.3	8.1	8.0	4.1	7.2	4.0	7.0
	Latest 4 weeks ^a	16788	16773	(90)	151	16939	16925	(14)	0.5	0.1	9.5	8.7	7.5	7.8	7.2	7.5
Weekly data		Level # million (Change in brackets)					Percentage change on previous week									
		Notes(sa) and Coin	Bankers' Deposits	MO (sa)												
November	2nd	16686	(1)	178	16864	(-52)		-0.3								
	9th	16699	(13)	215	16914	(50)		0.3								
	16th	16732	(33)	179	16911	(-3)		0.0								
	23rd	16779	(47)	139	16918	(7)		0.0								
	30th	16800	(21)	117	16917	(-1)		0.0								
December	7th	16782	(-18)	170	16952	(35)		0.2								

^a Weekly data for the current month so far include estimates for the unbacked note issue. The latest week also includes an estimate for coin. The changes for the current month so far use as a base the previous full month and the full month a year ago. The latest four week changes use as a base the four week averaged level four weeks ago and a year ago.

TABLE 18

CONFIDENTIAL

BUILDING SOCIETY BALANCE SHEET FLOWS

	Total Flow	Net Mortgage Advances & Unsecured Lending	A S S E T S		L I A B I L I T I E S				Unadjusted # million
			Liquid Assets	Fixed Assets	Retail principal	Interest credited	Wholesale funds	Other (eg reserves)	
1985 *	1497	1226	244 (18.0)	27	621	497	205	174	
1986 *	1626	1628	-25 (16.4)	23	549	508	524	45	
1987 *	1650	1268	339 (16.9)	43	630	570	194	256	
1986 Q3*	1788	1930	-163 (15.7)	21	54	402	1144	188	
Q4*	2097	1594	480 (16.4)	23	933	647	448	69	
1987 Q1*	1406	1170	158 (16.1)	78	458	523	111	314	
Q2*	1592	1282	290 (16.2)	20	615	457	108	412	
Q3*	1547	1288	215 (16.1)	44	409	516	337	285	
Q4*	2063	1390	692 (16.9)	-19	1038	785	222	18	
1988 Q1*	1870	1686	10 (16.5)	174	1027	626	113	104	
Q2*	3176	2205	925 (17.0)	46	1349	407	697	716	
Q3*	2636	2505	116 (16.4)	14	986	554	620	476	
August	2615	2763	-93 (16.4)	-59	1132	116	457	910	
September	2306	2034	354 (16.4)	-82	588	811	855	55	
October	2792	2060	717 (16.6)	15	1617	304	90	782	
Forecast									
1988 November	1937	1920	95 (16.4)	-78	300	202	400	1035	

* Monthly averages

Figures in () are end period liquidity ratio, unadjusted

TABLE
THE COMPONENTS OF M3

	BANK DEPOSITS				
	NOTES AND COINS	RETAIL		WHOLESALE	M3
		NIB	IB		
% CHANGES					

Financial years ¹ (ua)					
1984-85	5.2	6.5	7.7	19.1	11.5
1985-86	3.7	4.5	16.8	26.1	16.7
1986-87	2.2	16.9	17.5	25.8	19.1
1987-88	13.7	15.6	12.4	29.2	20.9
Over 12 months (ua)					
1987 NOVEMBER	1.5	14.3	13.5	33.5	21.5
DECEMBER	6.4	11.9	10.7	38.5	22.9
1988 JANUARY	6.0	14.5	11.1	35.8	22.5
FEBRUARY	3.4	16.9	10.9	31.1	20.6
MARCH	15.0	15.3	12.4	28.9	20.9
APRIL	9.5	15.7	12.3	26.5	19.4
MAY	5.6	16.9	11.9	25.2	18.6
JUNE	10.8	10.7	15.6	28.3	20.3
JULY	9.0	11.6	17.1	27.9	20.6
AUGUST	4.9	13.0	18.0	26.1	20.0
SEPTEMBER	13.4	12.2	21.9	28.1	22.6
OCTOBER	5.5	13.9	21.8	22.8	19.8
Over 6 months (sa)					
1988 MAY	7.9	18.4	9.5	20.9	16.4
JUNE	5.9	19.7	22.5	18.5	18.8
JULY	8.4	9.8	24.7	31.1	24.0
AUGUST	5.7	6.2	29.0	32.6	24.8
SEPTEMBER	6.5	9.9	32.4	30.3	25.5
OCTOBER	10.2	15.9	31.2	26.1	24.5
CHANGES MILLION					

Monthly average ¹ (sa)					
1984-85	42	56	238	683	1017
1985-86	17	90	161	556	1565
1988	4	359	538	1255	2157
APRIL	-87	53	351	2831	3148
MAY	-47	606	131	520	1210
JUNE	94	-154	2251	2543	4734
JULY	392	29	1515	3560	5496
AUGUST	-257	206	1032	733	1714
SEPTEMBER	336	851	2270	3320	6777
OCTOBER	152	1004	144	1392	2692

¹March on March

TABLE 2

THE COMPONENTS OF M4 AND M5

	BUILDING SOCIETIES							
	M3	RETAIL ¹			HOLDINGS OF M3	M4	MONEY	
		WHOLESALE	MARKET INSTRUMENTS				M5	
% CHANGES								
Financial years³ (ua)								
1984-85	11.5	15.1					13.8	13.8
1985-86	16.7	15.3		94	-0.1		13.5	14.5
1986-87	19.1	10.8		50	-15.6		13.5	12.9
1987-88	20.9	13.6		39.5	16.8		12.7	16.6
Over 12 months (ua)								
1987 NOVEMBER	21.5	13.9	6.9	66.0	15.2	5.2		14.7
DECEMBER	22.9	11.2	16.7	63.2	16.3	8.0		15.9
1988 JANUARY	22.5	12.4	29.3	57.0	16.6	11.0		16.3
FEBRUARY	20.6	13.2	32.3	47.8	16.1	7.7		15.6
MARCH	20.9	13.6	40.3	39.5	16.8	12.7		16.6
APRIL	19.4	13.6	32.6	41.2	16.0	9.1		15.7
MAY	18.6	13.9	36.2	34.6	16.1	4.5		15.5
JUNE	20.3	13.6	44.9	45.5	16.8	3.3		16.2
JULY	20.6	15.0	30.8	40.3	17.5	3.7		16.8
AUGUST	20.0	16.0	20.9	38.3	17.3	2.8		16.5
SEPTEMBER	22.6	18.0	0.3	42.1	18.6	3.7		17.9
OCTOBER	19.8	18.7	-3.9	35.0	17.4	1.1		16.6
Over 6 months (sa)								
1988 MAY	16.4	14.5	0.2	39.1	14.4	3.1		13.9
JUNE	18.8	15.5	0.4	43.3	15.8	0.5		15.1
JULY	24.0	16.1	0.3	26.4	20.2	-1.9		19.0
AUGUST	24.8	17.0	0.3	32.7	20.6	-0.3		19.5
SEPTEMBER	25.5	15.6	0.0	26.7	20.7	-4.2		19.5
OCTOBER	24.5	15.6	0.0	14.5	20.9	1.9		20.0
CHANGES MILLION								

Monthly average³ (sa)								
1984-85	984	1034	42	-28	139	2221		2090
1985-86	1565	1207	50	-362	-118	2480		2557
1986-87	2157	938	17	-372	51	2791		2975
1987-88								
Over 1 month (sa)								
1988 MAY	1210	1731	214	-238	2917	239		3156
JUNE	4734	1914	75	-673	6050	53		6103
JULY	5496	1585	58	-39	7100	13		7113
AUGUST	1714	2211	-200	143	3868	-49		3819
SEPTEMBER	6777	1086	-11	-204	7648	200		7848
OCTOBER	2692	1766	-122	-210	4126	-313		3813

¹ Net in flow including Term shares and SAYE.

³ Treasury bills, bank bills, LA temporary debt, CID's and some national savings accounts, March on March.

TABLE
RETAIL DEPOSITS

	BANKS	BUILDING ¹ SOCIETIES	NATIONAL SAVINGS ²	TOTAL
% CHANGES				
----- Financial years ³ (ua)				
1984-85	7.1	15.1	11.9	12.0
1985-86	11.6	15.3	7.5	12.9
1986-87	17.2	10.8	10.8	12.7
1987-88	13.6	13.0	6.1	11.2
Over 12 months (ua)				
1987 NOVEMBER	13.9	11.1	7.4	11.3
DECEMBER	11.2	11.6	7.2	10.5
1988 JANUARY	12.4	12.1	6.8	10.9
FEBRUARY	13.2	12.6	6.4	11.1
MARCH	13.6	13.0	6.1	11.2
APRIL	13.6	13.6	5.9	11.4
MAY	13.9	14.2	5.5	11.7
JUNE	13.6	14.4	5.1	11.6
JULY	15.0	15.0	5.0	12.2
AUGUST	16.0	15.3	4.7	12.6
SEPTEMBER	18.0	15.7	4.3	13.5
OCTOBER	18.7	16.3	4.5	14.0
Over 6 months (sa)				
1988 MAY	12.9	14.5	6.3	12.5
JUNE	21.4	15.5	6.1	15
JULY	18.7	16.1	5.3	16.3
AUGUST	19.5	17.0	4.6	15.9
SEPTEMBER	23.2	15.6	3.4	15.8
OCTOBER	25.1	15.6	2.7	15.8
CHANGES MILLION				
----- Monthly average ³ (sa)				
1984-85	42	1034	683	1759
1985-86	255	1207	1093	2555
1986-87	871	938	266	2075
1987-88				
Over 1 month (sa)				
1988 MAY	737	1731	67	2535
JUNE	2097	1914	160	4171
JULY	1544	1585	175	3304
AUGUST	1238	2211	-23	3426
SEPTEMBER	3121	1086	-46	4161
OCTOBER	1148	1766	4	2918

NOTES

- 1 Total retail funds, including terms shares and SAYE.
2 Total inflows.
3 March on March.

TABLE 22

BREAKDOWN OF BANK LENDING BY INSTRUMENT

	ADVANCES	COMMERCIAL BILLS	MEMO ITEM: BILL LEAK	INVESTMENTS	OTHER	TOTAL (u/a)	TOTAL (s/a)
<u>Monthly Average³</u>							
1983/84	979	n/a	n/a	n/a	n/a	1075	1075
1984/85	1150	n/a	n/a	n/a	n/a	1378	1378
1985/86	1490	n/a	n/a	n/a	n/a	1747	1747
1986/87	2045	n/a	n/a	n/a	n/a	2537	2537
1987/88	3145	-129	(36)	130	75	3221	3195
<u>Monthly Changes</u>							
1987	October	2734	-489	(278)			
	November	2578	819	(-497)	139	581	2965
	December	3433	1548	(-150)	235	-327	3305
	January	2597	2482	(-310)	120	371	5472
	February	2323	397	(-99)	-195	215	5099
	March	5739	-509	(445)	-35	-225	2460
	April	4928	-499	(-368)	286	351	5867
	May	2964	119	(536)	-51	-133	4245
	June	8123	-1515	(233)	-30	127	3180
1988	July	5530	1007	(35)	362	302	7272
	August	3082	-1181	(-80)	282	-509	6310
	September	7469	-724	(99)	-273	12	1640
	October	3871	0	(206)	85	462	7292
					131	-49	3953

¹Investment by banks in private sector.

²Market loans, shipbuilding repos, CD's and time deposits of building societies and commercial paper.

FUNDING : FINANCIAL YEAR 1988/89

24/11/88

million

	FORECAST	OUTTURN	RESIDUAL	
	Financial Year 88/89	April - Oct 88	Nov 88 - Mar 89	
PSBR AND FUNDING TARGET				
1 PSBR excl asset sales	-3800	-973	-2827	
2 Asset sales (sales-)	-6000	-4937	-1063	
3 PSBR	-9800	-5910	-3890	
FINANCED BY:				
4 OPS debt sales to M4ps (sales-)	500	286	214	
5 National Savings (sales-)	-1000	-657	-343	* -69
6 CTDs sales to M4ps (sales-)	750	138	612	
7 Treasury bills etc M4ps (sales-)	0	235	-235	
8 Intervention (reserves inc+)	0	2209	-2209	
9 Public sector externals excl intervention and gilts (inc-)	0	22	-22	
10 NET GILT SALES TO M4PS & OVERSEAS NEEDED FOR FULL FUND (sales+)	-9550	-3677		
11 Adjustment for 1987/88 underfund	375			
12 OVER(-)/UNDER(+) FUNDING	-375	-297	-78	
GILT SALES:				
13 Net purchases by M4ps and overseas (purchases+)	-9175	-3380	-5795	
14 Net purchases by banks/b socs & other public sector (purchases+)	-1500	-1516	16	
15 Maturities	8300	5556	2744	
16 GROSS OFFICIAL SALES	-2375	660	-3035	
17 Monthly average gross gilt sales	-198	94	-607	

* average per month

Relationship between lines:

$$3 = 1 + 2$$

$$10 = 3 + 4 + 5 + 6 + 7 + 8 + 9$$

$$12 = 10 + 11 - 13$$

$$16 = 13 + 14 + 15$$

Table 24 BORROWING BY PRIVATE SECTOR EXCLUDING BUILDING SOCIETIES (million)

BANK/BUILDING SOC. STERLING BORROWING				OTHER STERLING BORROWING				ALL BORROWING			
	Banks	B Soc	TOTAL	Sterling Commercial Paper(*)	Ordinary Shares (*)	Pref & Bonds (*)	Euro- Sterl (**)	TOTAL	Sterling	Foreign Currency	TOTAL
Change in Quarter											
1984	Q1	5141	3007	8148							
	Q2	2781	4076	6857		163	44 117	324	8472	1102	9574
	Q3	3285	4087	7372		429	75 30	534	7391	808	8199
	Q4	4535	3402	7937		288	59 298	645	8017	1047	9064
						249	73 410	732	8669	1948	10617
1985	Q1	7093	3189	10282		924	170 235	1329	11611	3225	14836
	Q2	4158	3748	7906		1092	327 230	1649	9555	1382	10937
	Q3	4148	3561	7709		873	274 193	1340	9049	-806	8243
	Q4	4294	4235	8529		525	89 445	1059	9588	939	10527
1986	Q1	7157	3967	11124	0	471	209 750	1430	12554	2362	14916
	Q2	5189	5220	10409	0	1369	344 605	2318	12727	1575	14302
	Q3	4877	5738	10615	23	1431	290 448	2192	12807	3688	16495
	Q4	10138	4782	14920	68	2338	-52 281	2635	17555	623	18178
1987	Q1	7147	3619	10766	416	1553	-782 1546	2733	13499	7142	20641
	Q2	8692	4240	12932	597	2259	352 990	4252	17184	4733	21917
	Q3	10855	3889	14744	259	5950	732 931	7872	16911	-1152	15759
	Q4	10910	3926	14836	-167	3746	173 591	4343	19179	-178	19001
1988	Q1	13169	4980	18149	909	370	124 1600	3003	21152	1819	22971
	Q2	14244	7462	21706	579	1028	-206 1948	3349	25055	1024	26079
	Q3	15363	7414	22777	166	1115	585 1093	2959	25736	3155	28891
Average per quarter											
1984		3936	3643	7579	0	282	63 214	559	8137	1226	9364
1985		4923	3683	8607	0	854	215 276	1344	9951	1185	11136
1986		6840	4927	11767	23	1402	198 521	2144	13911	2062	15973
1987		9401	3919	13320	276	3377	119 1015	4787	16693	2636	19330
1988		14259	6619	20877	551	838	168 1547	3104	23981	1999	25980
Change in Month											
1987	SEPT	5519	1318	6837	158	2020	160 310	2648	9485	36	9521
	OCTOBER	2521	1510	4031	122	2535	195 256	3108	7139	3421	10560
	NOVEMBER	3213	1441	4654	-43	977	55 335	1324	5978	-1528	4450
	DECEMBER	5176	975	6151	-246	234	-77 0	-89	6062	-2069	3993
	JANUARY	4991	1473	6464	379	48	40 625	1092	7556	727	8283
	FEBRUARY	2507	1396	3903	339	219	106 590	1254	5157	-969	4188
1988	MARCH	5671	2111	7782	191	103	-22 385	657	8439	2061	10500
	APRIL	4342	2050	6392	146	235	-241 450	590	6982	-2430	4552
	MAY	3033	2495	5528	431	548	-121 780	1638	7166	1393	8559
	JUNE	6869	2917	9786	2	245	156 718	1121	10907	2671	13578
	JULY	6422	2739	9161	68	307	191 183	749	9910	-144	9766
	AUGUST	1875	2663	4538	8	334	168 315	825	5363	-325	5038
	SEPT	7066	2012	9078	90	474	226 595	1385	10463	3624	14087
	OCTOBER	3900	2251	6151	199	1177	405 720	2501	8652	557	9209
						400	19 450				

* UK ICC's only

** Announced issues by UK ICCs and OFIs

** Gross issues announced by UK ICC's and OFI's

Table 25:- FINANCE OF U.K. INDUSTRIAL AND COMMERCIAL COMPANIES AND BUILDING SOCIETIES (million)

BANK BORROWING				OTHER BORROWING					ALL BORROWING			
Sterling		Foreign	TOTAL	Sterling Commercial Paper	Ordinary Shares	Pref & Bonds	Euro-Sterling(*)		TOTAL	TOTAL (o/w ICC)		
ICC's	BSOC's	Currency					ICC's	BSOC's				
Change in Quarter												

1984												
Q1	2905	-86	-895	1924		163	44	25	0	232	2156	2247
Q2	559	-56	-193	310		429	75	0	0	504	814	870
Q3	1219	533	-74	1678		288	59	100	0	447	2125	1592
Q4	2312	408	1433	4153		249	73	210	0	532	4685	4277
1985												
Q1	3386	6	-352	3040		924	170	235	0	1329	4369	4363
Q2	747	248	207	1202		1092	327	230	0	1649	2851	2603
Q3	229	161	1371	1761		873	274	130	600	1877	3638	2877
Q4	847	860	1377	3084		525	89	200	475	1289	4373	3038
1986												
Q1	3722	363	108	4193	0	471	209	350	935	1965	6158	4860
Q2	-414	461	108	155	0	1369	344	325	1075	3113	3268	1732
Q3	-40	1856	1128	2944	23	1431	290	231	1575	3550	6494	3063
Q4	5188	404	-21	5571	68	2338	-52	281	2632	5267	10838	7802
1987												
Q1	11134	355	2008	13497	416	1553	-782	1231	290	2708	16205	15560
Q2	631	-516	762	877	597	2259	352	655	50	3913	4790	5256
Q3	3645	397	-80	3962	259	5950	732	570	100	7611	12382	11885
Q4	4284	832	630	5746	-167	3746	173	105	0	3857	9603	8771
1988												
Q1	7008	257	2048	9313	909	370	124	915	625	2943	12256	11374
Q2	4979	453	2106	7538	579	1028	-206	1000	1030	3431	10969	9486
Q3	5274	114	2434	7822	166	1115	585	643	635	3144	10966	10217
Average per quarter												

1984	1749	200	68	2016	0	282	63	84	0	429	2445	2245
1985	1302	319	651	2272	0	854	215	199	269	1536	3808	3220
1986	2114	771	331	3216	23	1402	198	297	1554	3474	6690	4364
1987	4924	267	830	6021	276	3377	119	640	147	4559	10579	10166
1988	5754	275	2196	8224	551	838	168	853	763	3173	11397	10359

Change in Month

1987	SEPTEMBER	158	2020	160	210	100	2648
	OCTOBER	122	2535	195	45	0	2897
	NOVEMBER	-43	977	55	60	0	1049
	DECEMBER	-246	234	-77	0	0	-89
	JANUARY	379	48	40	450	50	967
	FEBRUARY	339	219	106	355	150	1169
1988	MARCH	191	103	-22	110	425	807
	APRIL	146	235	-241	150	150	440
	MAY	431	548	-121	530	275	1663
	JUNE	2	245	156	320	605	1328
	JULY	68	307	191	48	360	974
	AUGUST	8	334	168	0	200	710
	SEPTEMBER	90	474	226	595	75	1460
	OCTOBER	125	1177	405	720	100	2527
	NOVEMBER		400	19	300	235	

Gross Issues announced by U.K. ICC's and Building Societies
 NOTE: Bank borrowing figures include monetary sector holdings of 'Other Borrowing' instruments, giving rise to some double counting in the 'All Borrowing' figures.

TABLE 26

M0 FORECAST, 1988-89

Note: Forecast assumes unchanged base rates from
 ----- current levels (13 per cent)

	Levels (million)		seasonally adjusted			
	Notes & Coin	M0	6 month a.r. (%)		12 month % growth rates	
			Notes & Coin	M0	Notes & Coin	M0
Actual -----						
1987-88 *	15371	15553			5.0	4.9
April	15801	16030	4.4	4.7	6.0	6.1
May	15969	16147	5.8	5.7	6.6	6.3
June	16140	16314	6.3	6.1	7.1	7.3
July	16273	16461	8.6	8.6	7.3	6.9
August	16462	16618	10.5	10.9	7.9	7.6
September	16711	16874	12.5	12.4	8.7	8.4
October	16677	16863	11.4	10.7	7.9	7.6
Forecast -----						
November	16735	16901	9.8	9.6	7.8	7.6
December	16781	16973	8.1	8.2	7.2	7.1
January	16819	17011	6.8	6.8	7.7	7.7
February	16792	16984	4.0	4.5	7.2	7.6
March	16777	16969	0.8	1.1	6.5	6.6
1989-90						
April	16769	16961	1.1	1.2	6.1	5.8
May	16750	16942	0.2	0.5	4.9	4.9
June	16706	16898	-0.9	-0.9	3.5	3.6
July	16747	16939	-0.9	-0.8	2.9	2.9
August	16810	17002	0.2	0.2	2.1	2.3
September	16870	17062	1.1	1.1	1.0	1.1
October	16920	17112	1.8	1.8	1.5	1.5
November	16942	17134	2.3	2.3	1.2	1.4
December	16962	17154	3.1	3.1	1.1	1.1
January	16982	17174	2.8	2.8	1.0	1.0
February	17032	17224	2.7	2.6	1.4	1.4
March	17092	17284	2.6	2.6	1.9	1.9
1988-89 *	16495	16679			7.3	7.2

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TABLE 27 : BROAD AGGREGATES COUNTERPARTS AND FORECAST £ million

OUTTURN: OCTOBER 1988	M3	M4
PSBR	-2355	-2355
LA and PC debt sales to NBPS (-)	328	151
CG debt sales to NBPS (-)		
o/w Gilts	2171	2048
Treasury bills etc.	-135	-32
National Savings	-32	-32
CID's	259	252
Public sector external & fc finance	86	86
OVER(-)/UNDER(+) FUNDING	322	118
Sterling lending to NBPS : nsa	3953	6151
(sa)	(3876	6057)
Banks'/B Socs' externals	-2132	-2150
Banks'/B Socs' NNDLs	-164	-1380
TOTAL M3/M4	1979	2739
Monthly % growth nsa	0.9	0.8
sa	1.3	1.2
Annual % growth nsa	19.8	17.4
sa	19.6	16.9
FORECAST: NOVEMBER 1988		
PSBR	-300	-300
LA and PC debt sales to NBPS (-)	300	250
CG debt sales to NBPS (-)		
o/w Gilts	850	850
Treasury bills, Other	-150	-50
National Savings	0	0
CID's	75	75
Public sector external & fc finance	75	75
OVER(-)/UNDER(+) FUNDING	850	900
Sterling lending to NBPS : nsa	5300	7125
(sa)	(5250	6950)
Banks'/B Socs' externals & NNDLs	0	-1300
TOTAL M3/M4	6150	6725
Monthly % growth nsa	2.8	1.9
sa	2.2	1.7
Annual % growth nsa	22.4	19.0
sa	22.3	18.6
BUILDING SOCIETIES: Retail inflows		550
Wholesale inflows from NBNBSPS		50
Holdings of M3 (-)		-25

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Table 28Broad Money forecast

	OUTTURN 1988 OCTOBER		FORECAST	NOVEMBER
	M3	M4	M3	M4
(i) Underlying increase	1979	2739	6150	6725
(ii) Total Increase	1979	2739	6150	6725
Monthly % change	0.9	0.8	2.8	1.9
Annual % change	19.8	17.4	22.4	19.0
Annual % change expected at 1988 Budget time	20.2	16.4	20.1	16.6

TABLE 29: MONEY MARKET ASSISTANCE

million

	Outturn	Forecast		
	OCT	NOV	DEC	JAN
A. Money market influences				
(i) CGBR (+) excl bank deposits (+)	-1021	425	-387	-7644
(ii) Reserves etc (+)	558	150	-584	-584
(iii) Notes and coin (-)	495	-194	-1173	1482
(iv) National Savings (-)	-20	-1	-38	-100
(v) CTDs (-)	143	80	60	500
(vi) Gilts (-)	1984	894	500	700
(vii) Other Exchequer items etc	-254	0	0	0
A. TOTAL MONEY MARKET INFLUENCES (Market surplus + / shortage -)	<u>1885</u>	<u>1354</u>	<u>-1622</u>	<u>-5646</u>
B. Money market operations				
(i) Commercial bills (purchase +):				
Issue Department - outright	-684			
- repos	106			
Banking Department	-297			
(ii) IA bills (purchase +)				
Issue Department	-82			
Banking Department	-3			
(iii) Treasury bills (purchase +)	44			
(iv) Market advances	276			
(v) Treasury bill Repos	44			
(vi) Export Credit/Shipbuilding Repos	0			
(vii) Gilt Repos	0			
B. TOTAL MONEY MARKET OPERATIONS	<u>-1885</u>	<u>-1354</u>	<u>1622</u>	<u>5646</u>
C. Change in bankers balances = A + B				
D. TOTAL ASSISTANCE OUTSTANDING	6549	5195	6817	12463
of which commercial bills	5594			

SECRET

TABLE 30

GOVERNMENT SHARE SALES TIMING

1988/89

BSC I 2 December

1989/90

BP III 27 April

BSC II (26 September)

GILT REDEMPTIONS UP TO END FINANCIAL YEAR 1989/90

			amount outstanding (£ millions)
Financial year 1988/89			
(1988 October 25)	Treasury	9 1/2	2,050
1989 February	Treasury	11 1/2	2,250
Financial year 1989/90			
Total amount outstanding = £ 12,440 millions			
(11 redemptions)			

MONTHLY MONETARY REPORT : CHARTS

- 1 Exchange Rate Short Term
- 2 World interest rates
- 3 Broad money growth
- 4 Real M0 growth
- 5 FSBR budget profile M0
- 6 FSBR budget profile M4
- 7 Bank and Building Society Lending
- 8 Corporate bond issues
- 9 Money Market Assistance
- 10 Nominal Interest Rates
- 11 Yield Curve
- 12 Real Yields
- 13 House prices 1
- 14 House prices 2
- 15 Stock indices

CHART 1: EXCHANGE RATES

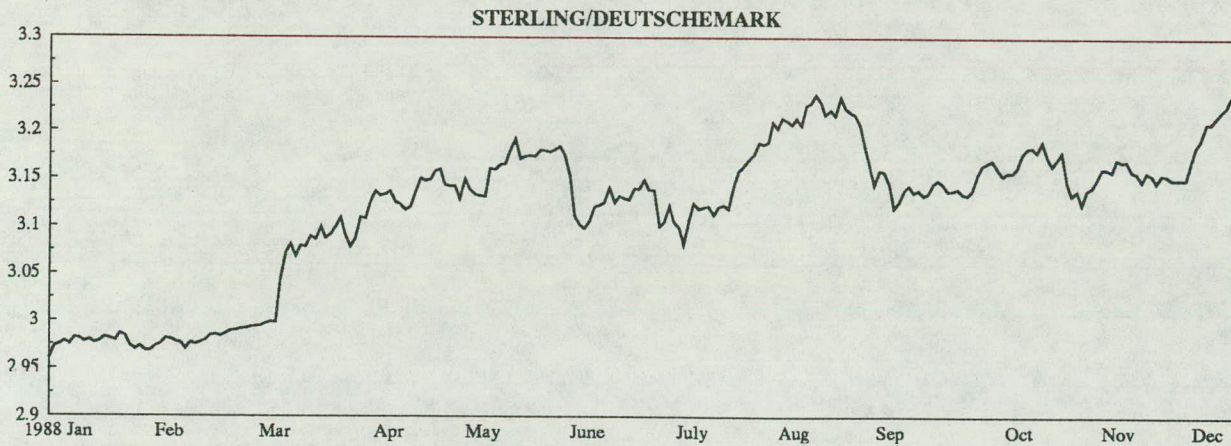
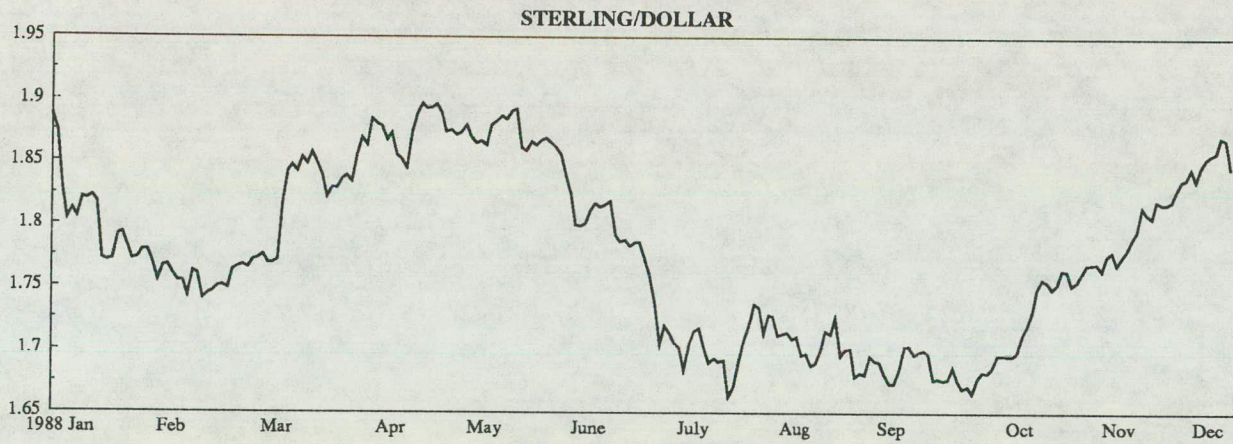
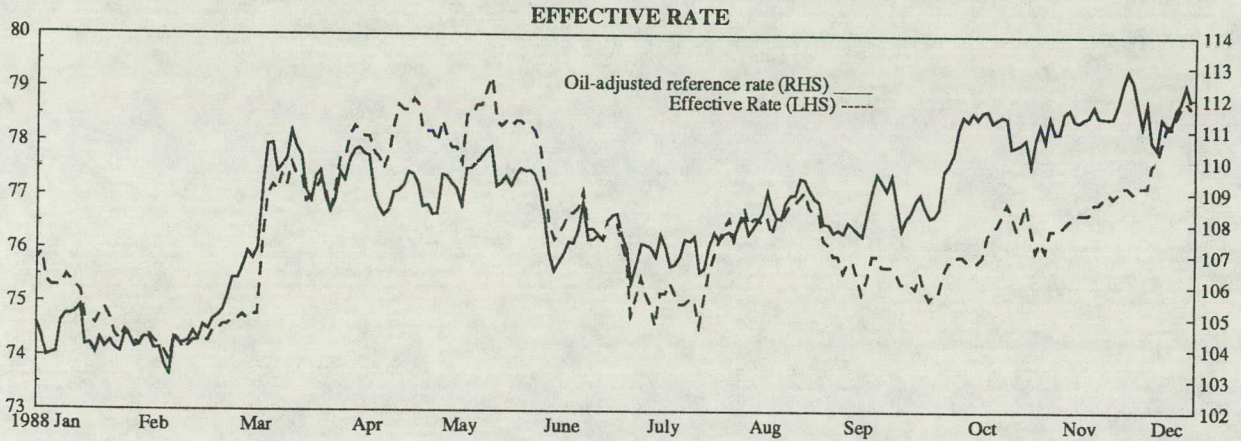


CHART 2: WORLD INTEREST RATES

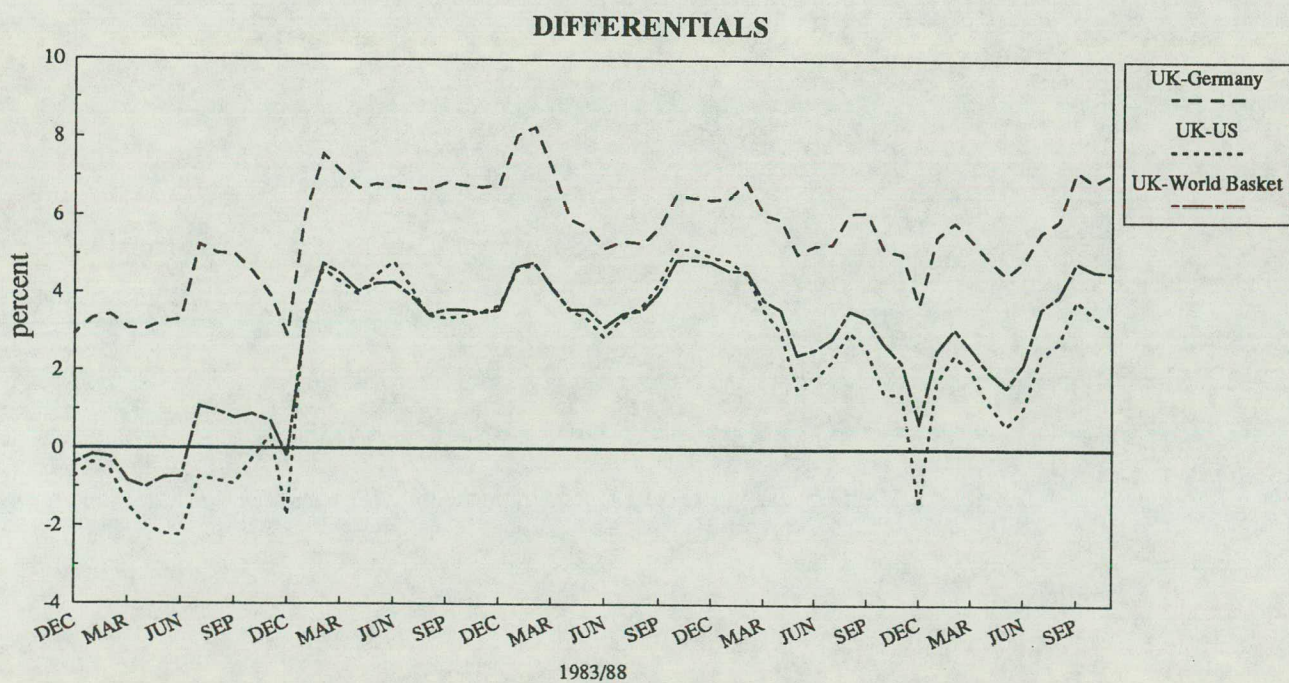
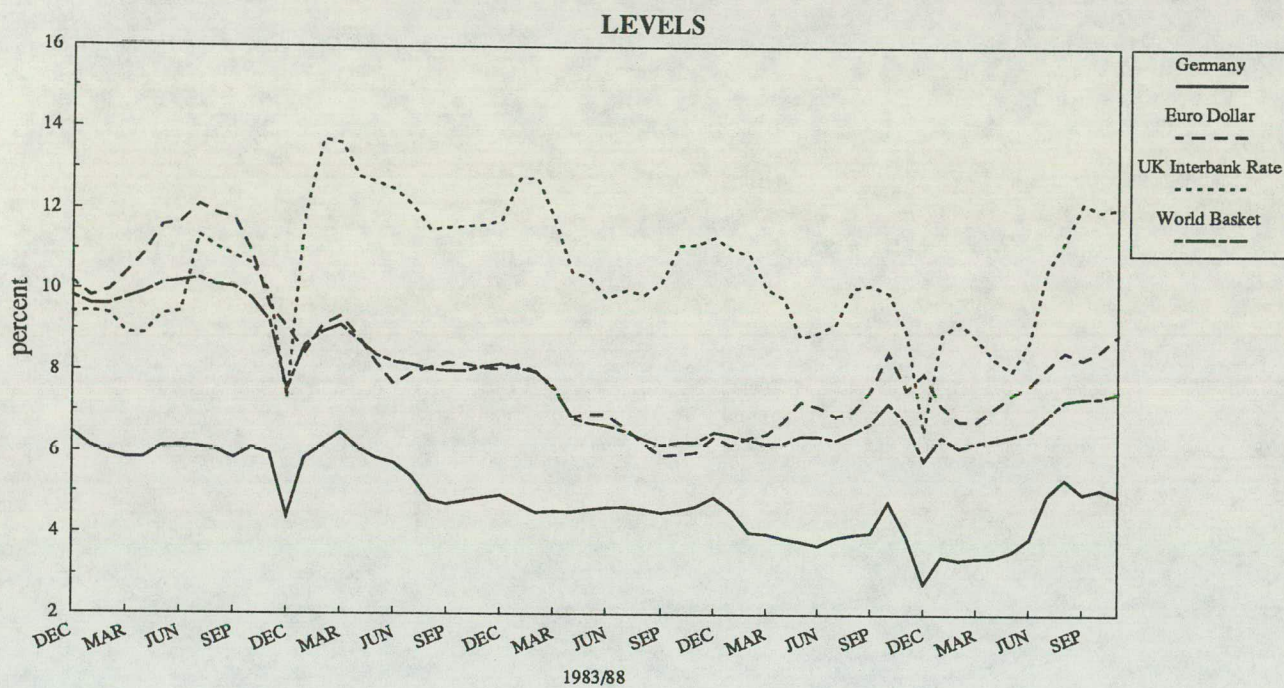


CHART 3 : BROAD MONEY

Annual percentage growth (ua)

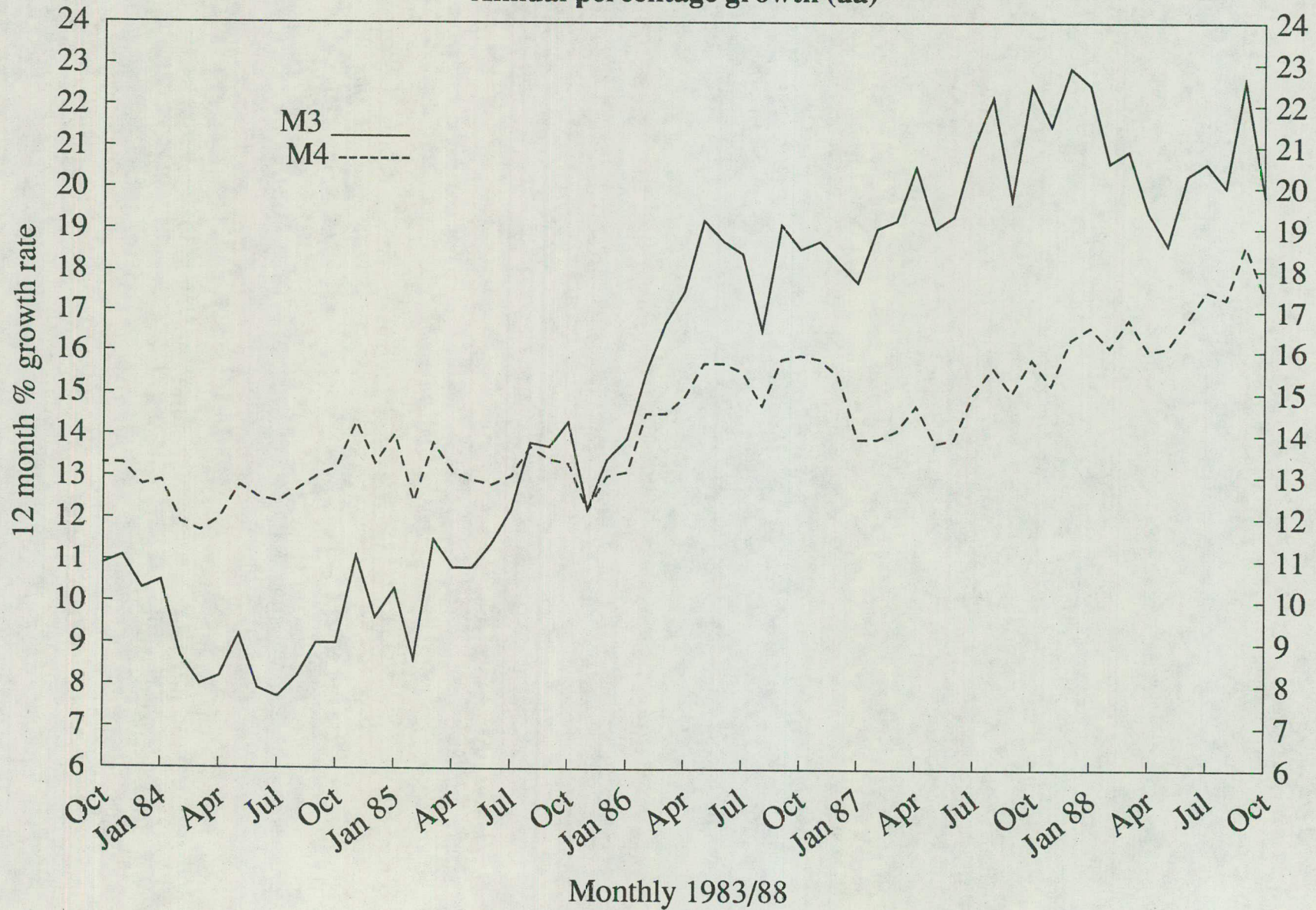
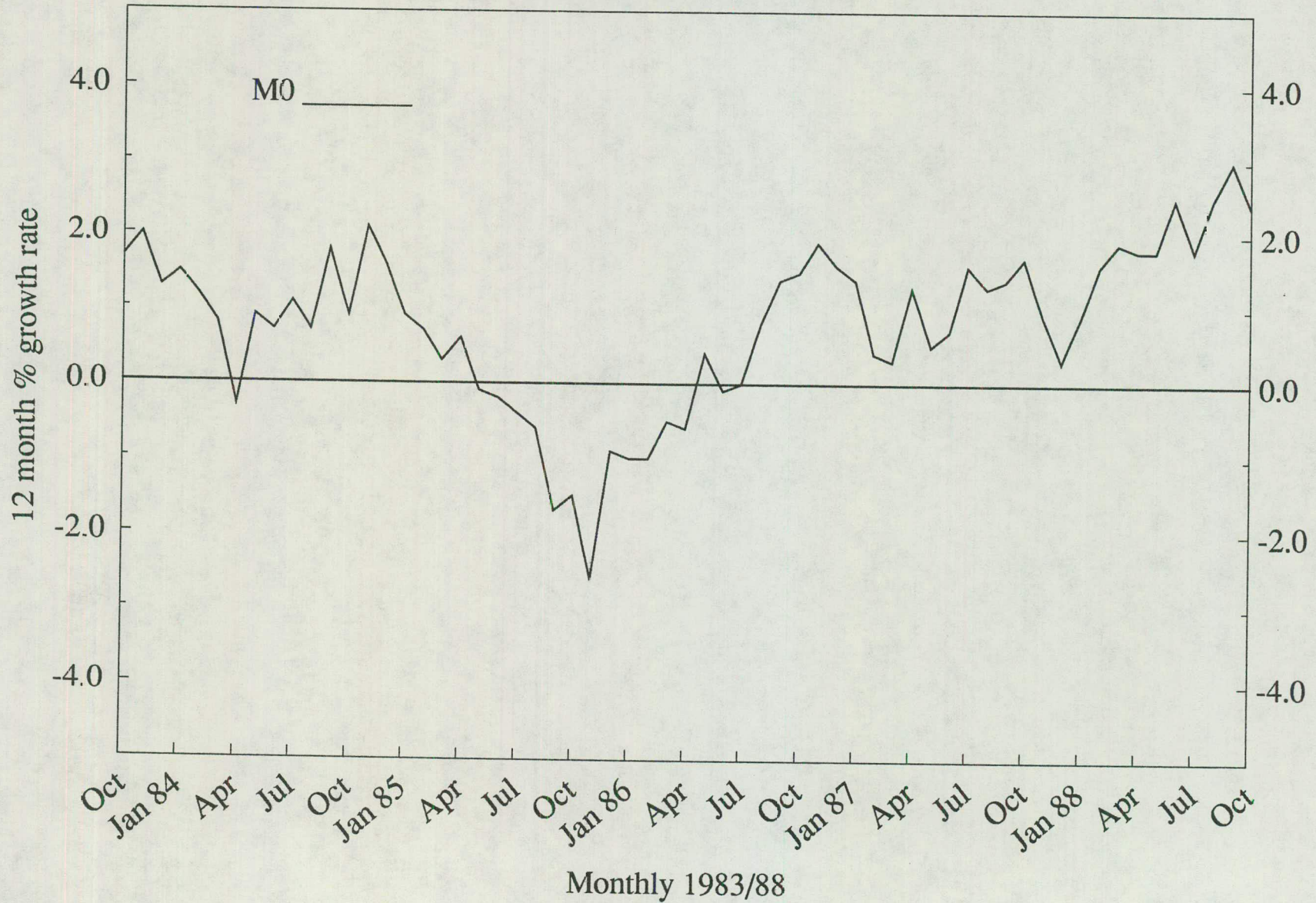
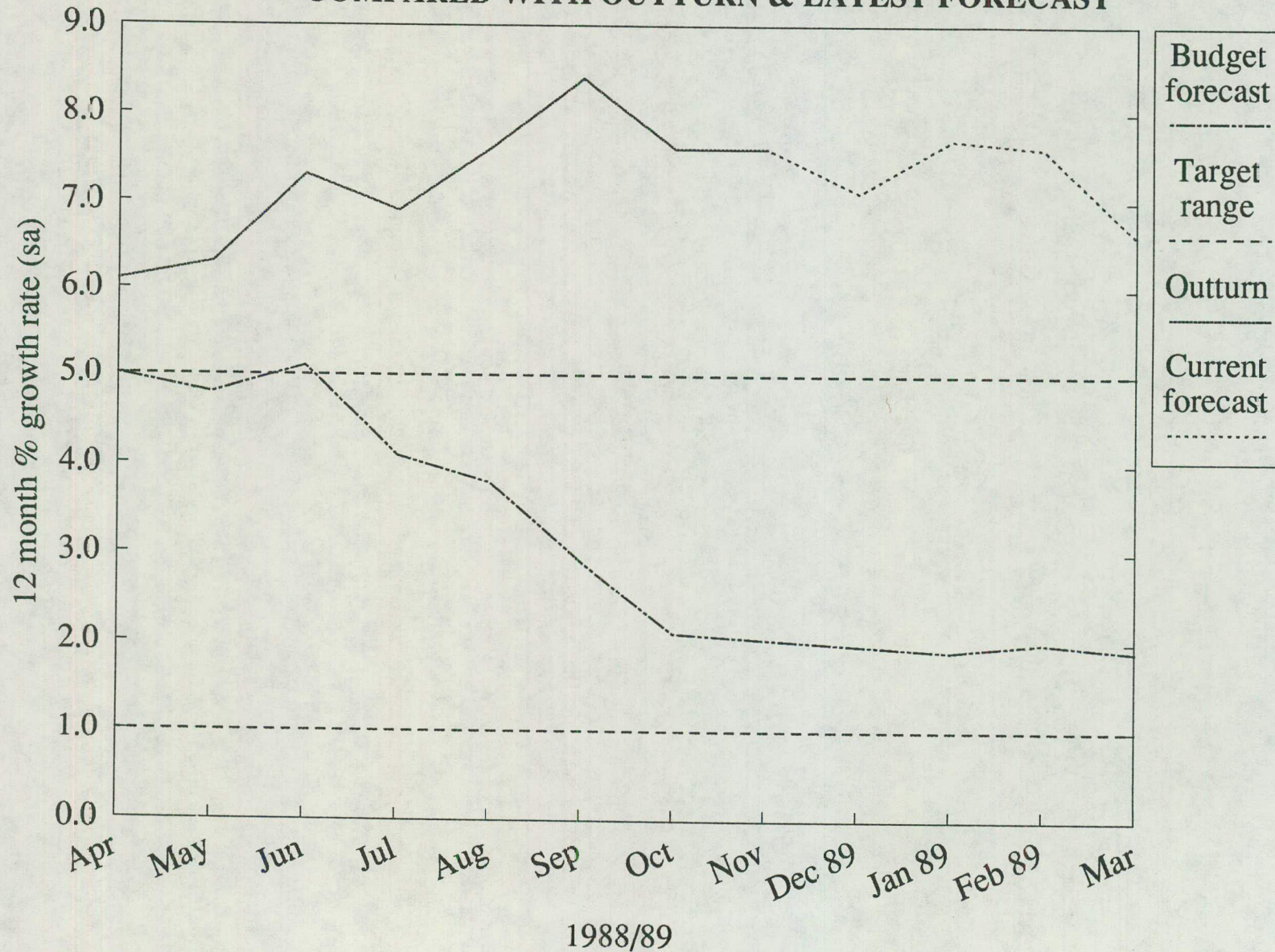


CHART 4: REAL M0
Annual percentage growth (sa)



**CHART 5 : M0 - 1988 BUDGET FORECAST
 COMPARED WITH OUTTURN & LATEST FORECAST**



**CHART 6 M4: 1988 BUDGET FORECAST
COMPARED WITH OUTTURN & LATEST FORECAST**

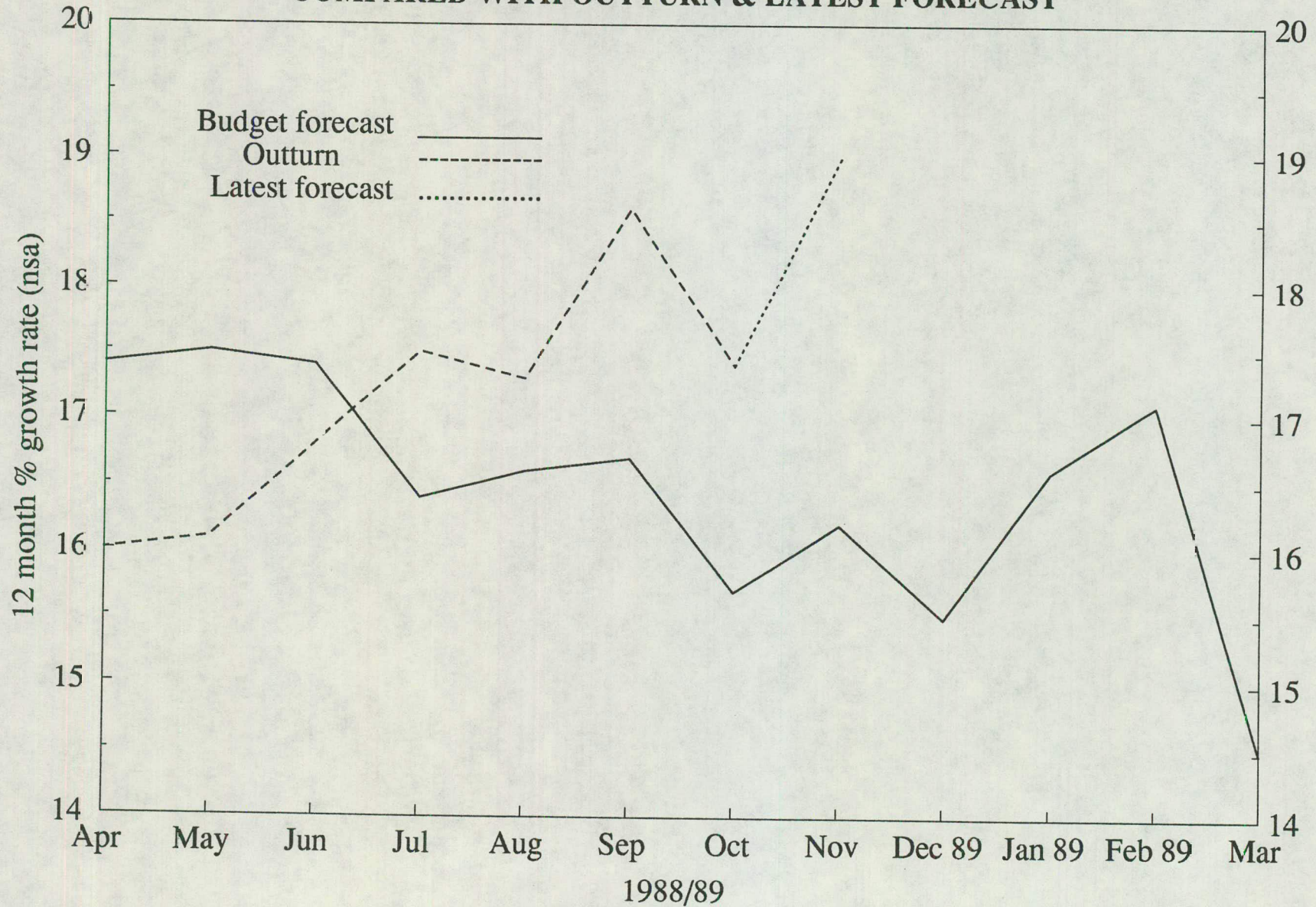


CHART 7: BANK & BUILDING SOCIETY LENDING

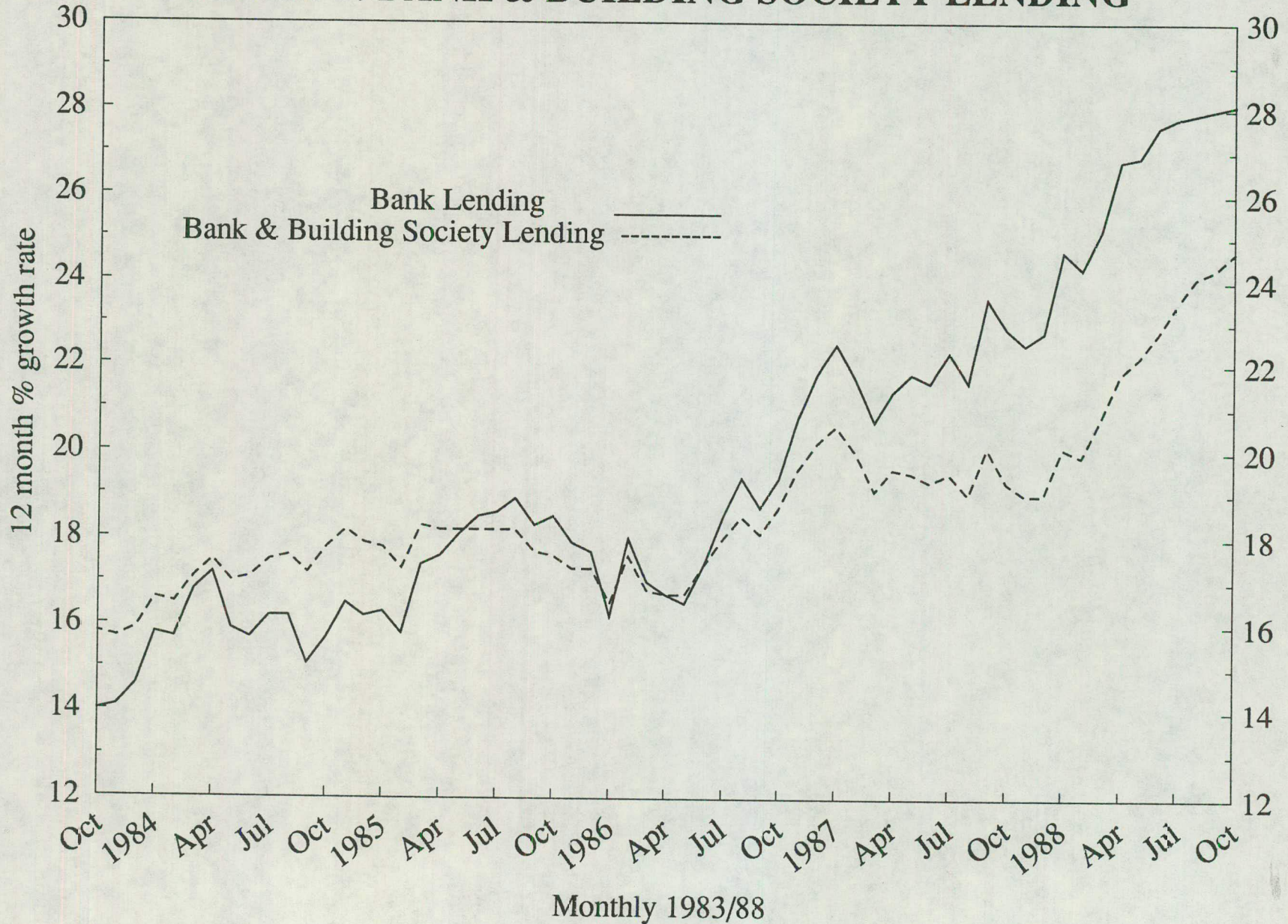
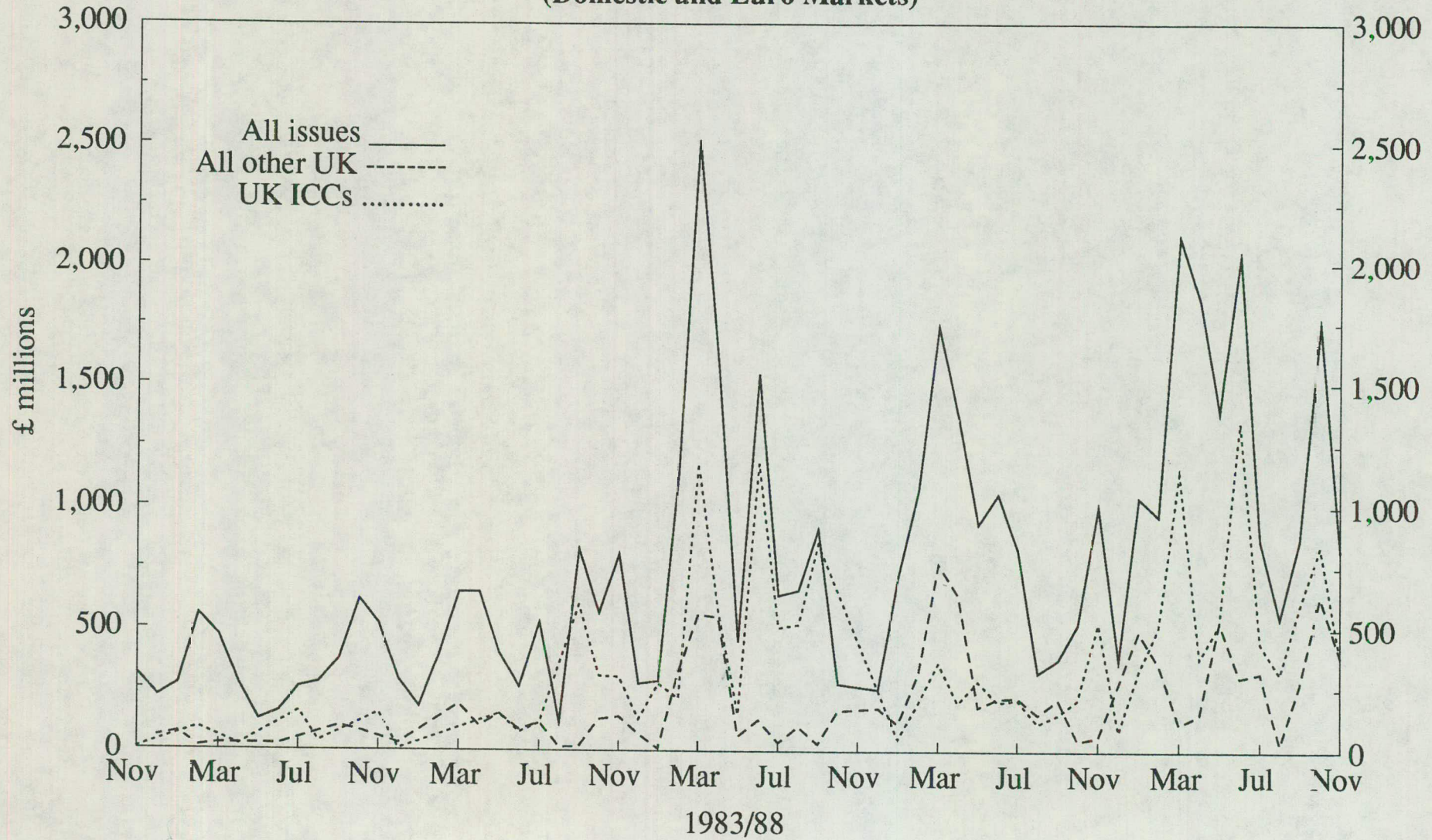


CHART 8 : STERLING BOND ISSUES
 (Domestic and Euro Markets)



Actual values

CHART 9 : MONEY MARKET ASSISTANCE

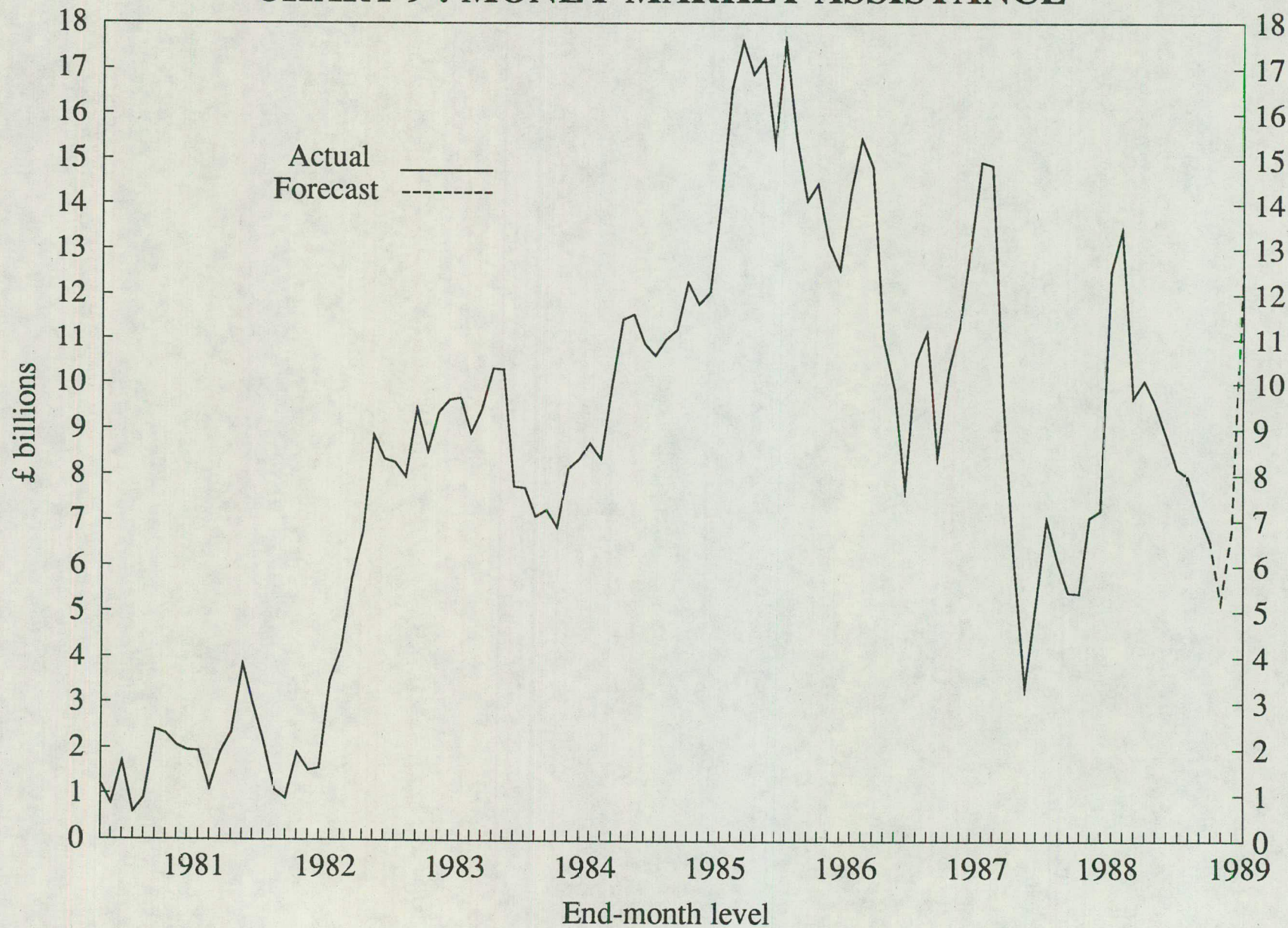
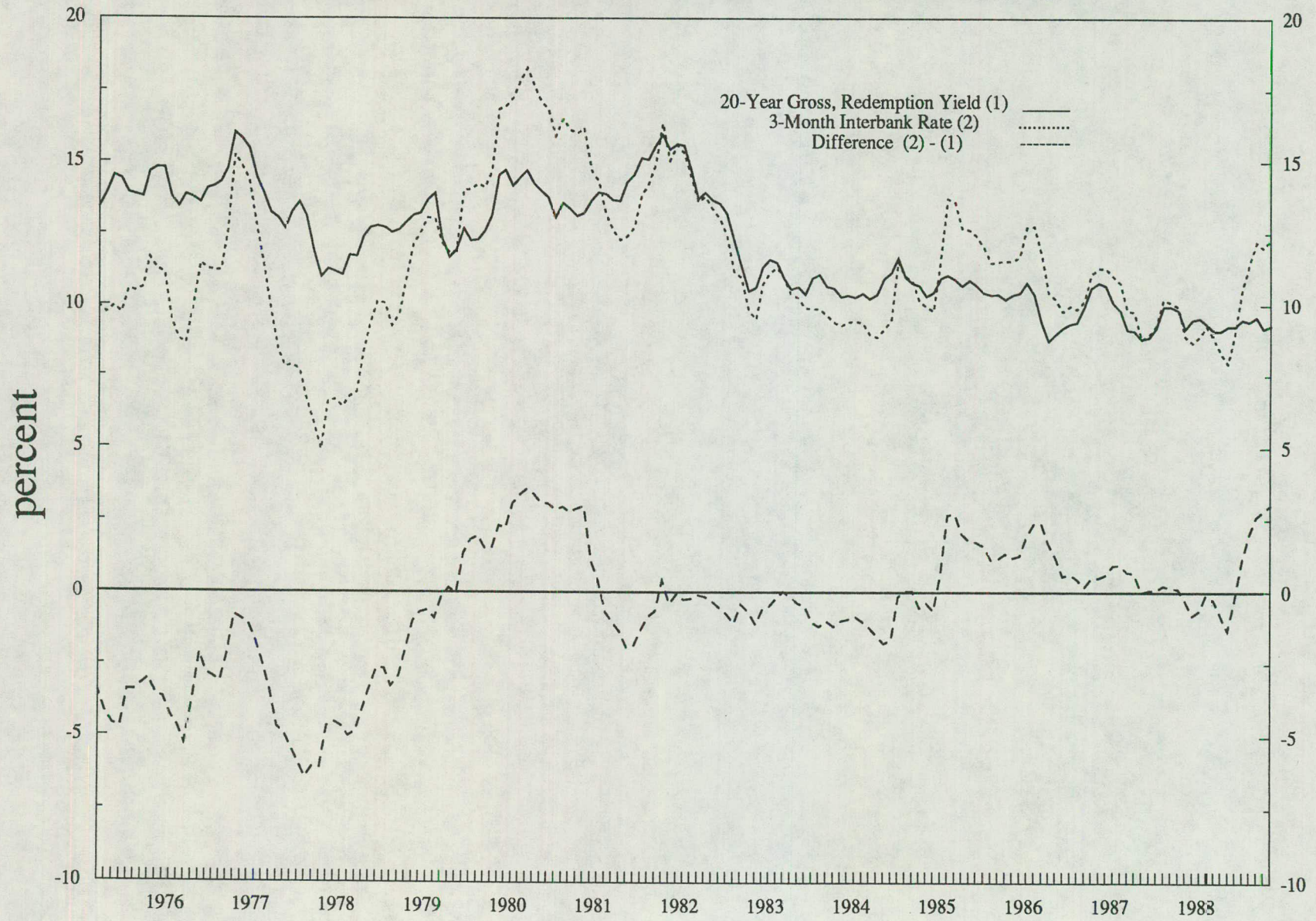


CHART 10: NOMINAL INTEREST RATES



- CHART 11

Per cent Time / Yield Curves of British Government Stocks

21st November 1988

The curves have been fitted to the gross redemption yields on stocks with one year or more to maturity. They are not reliable below 2 years, and the 1-year yield is calculated as an average of 4 stock yields.

LA: 3-month deposit rate.
 TB: Market rate of discount, expressed as an annual yield.
 Debenture Yield: FT 15 year
 FT All Share Index gross dividend yield 4.52

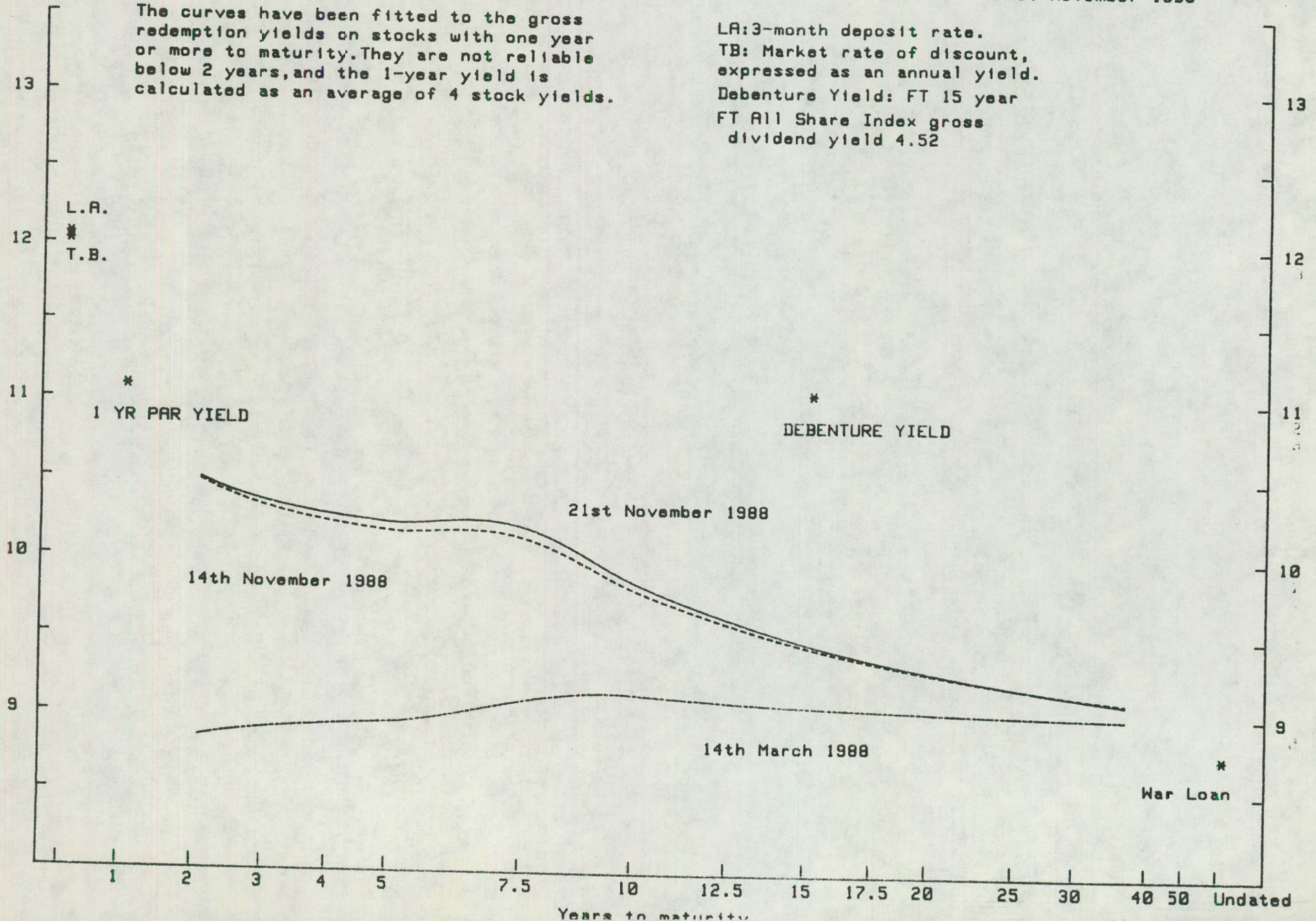
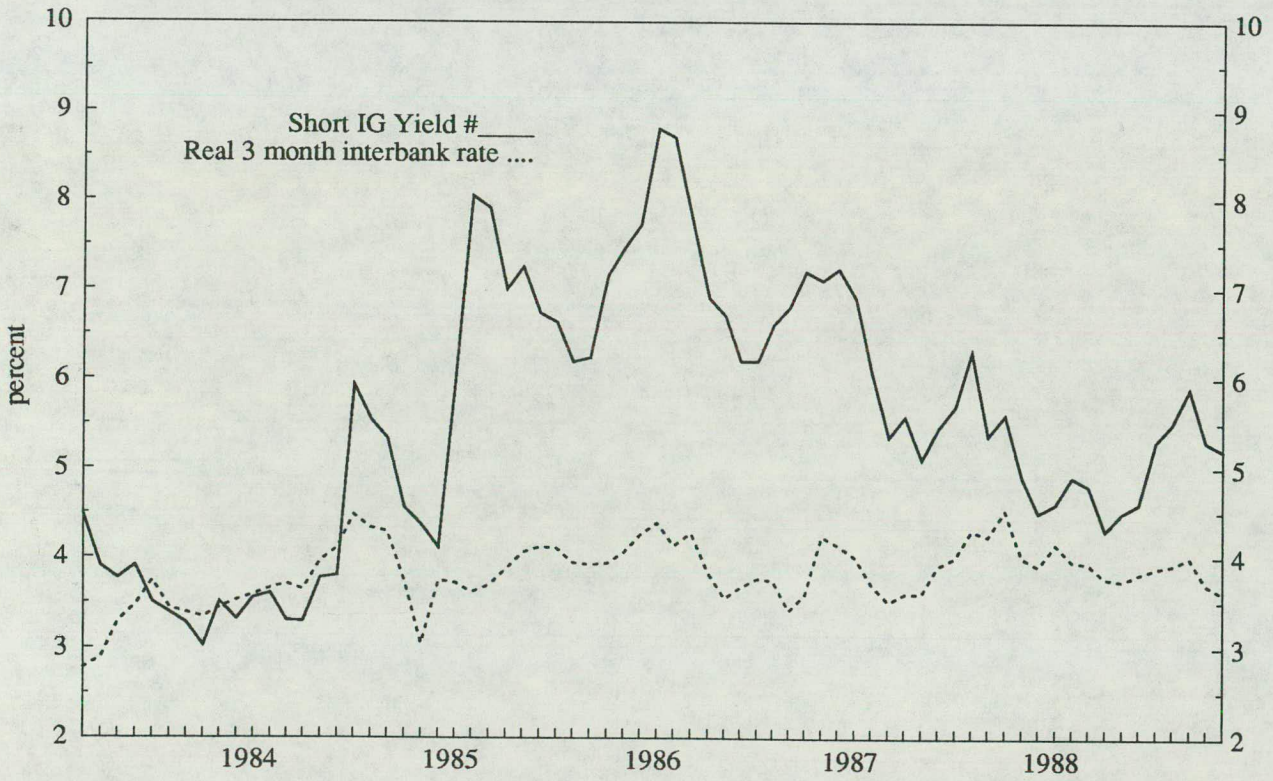
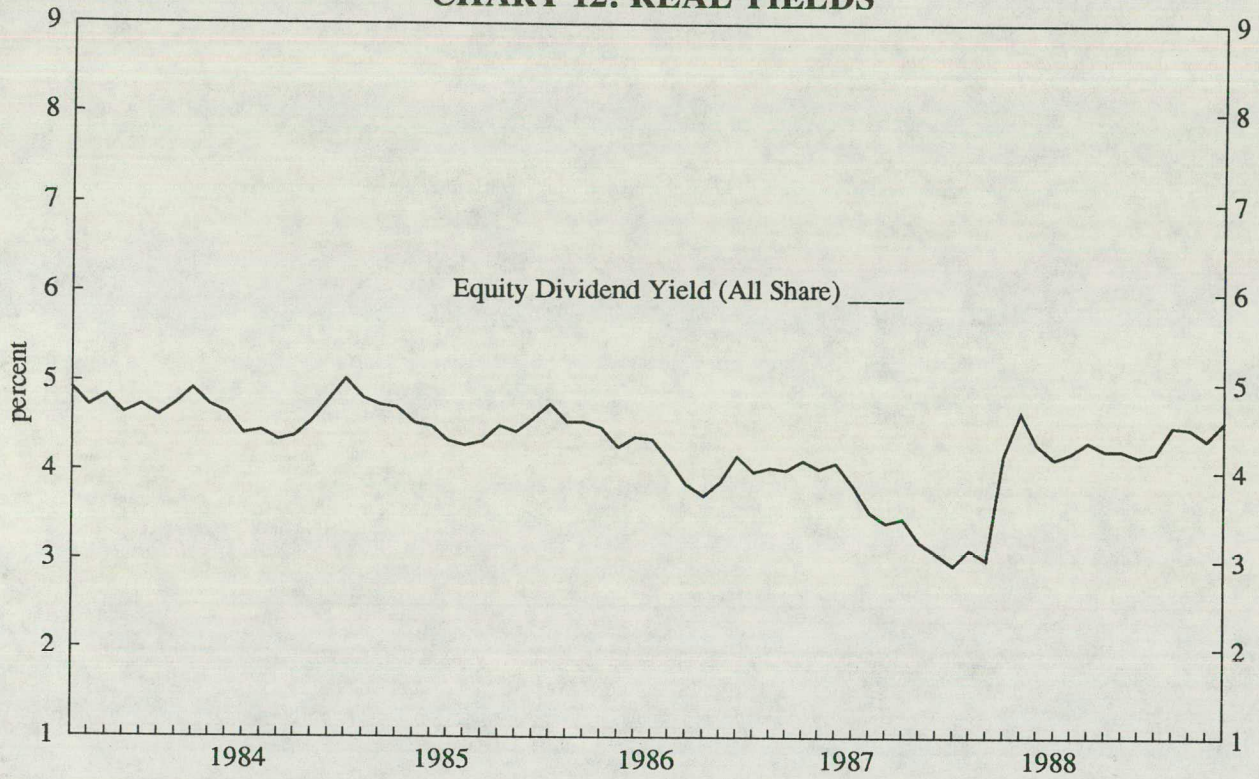


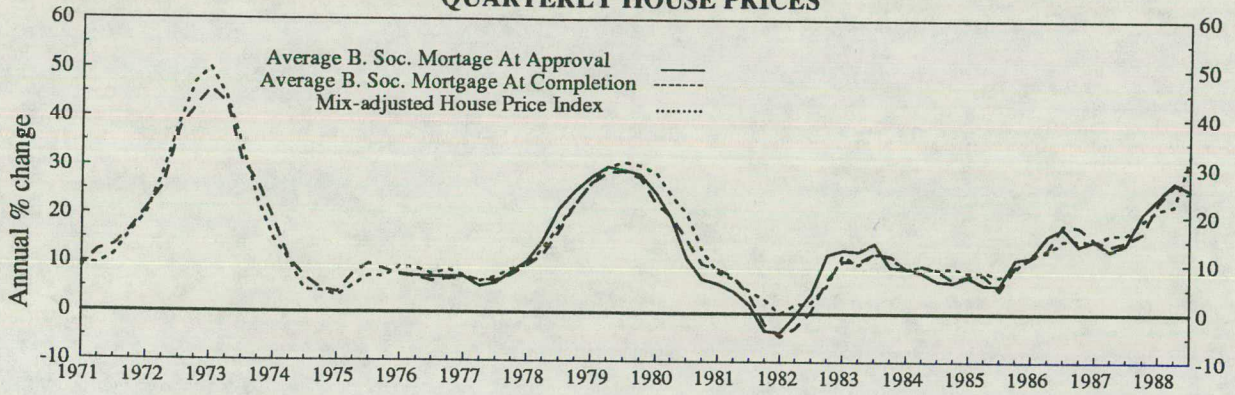
CHART 12: REAL YIELDS



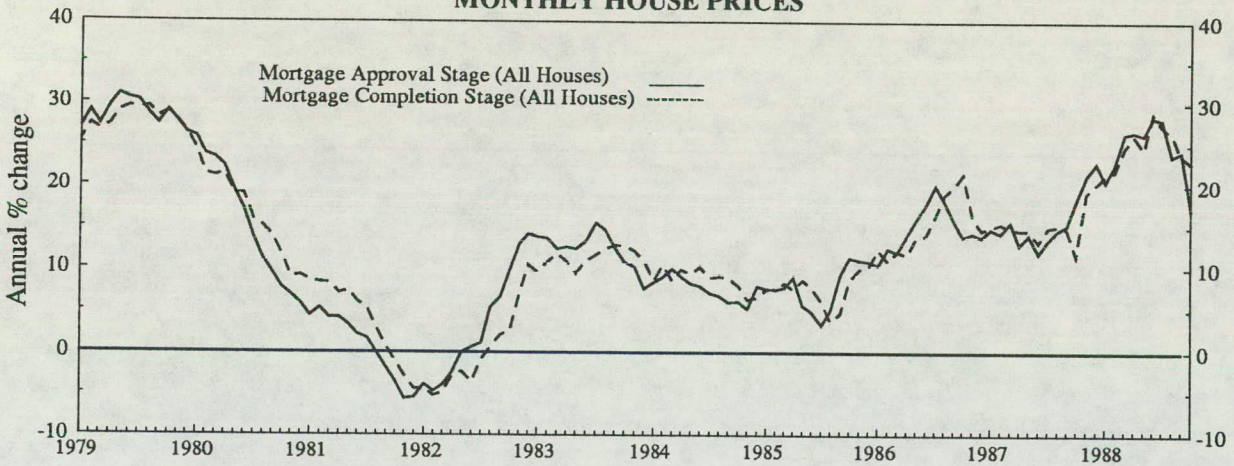
given projected annual inflation of 5%

CHART 13 : HOUSE PRICES

QUARTERLY HOUSE PRICES



MONTHLY HOUSE PRICES



INDICES OF RELATIVE HOUSE PRICES BASED ON DOE MIX ADJUSTED HOUSE PRICE INDEX

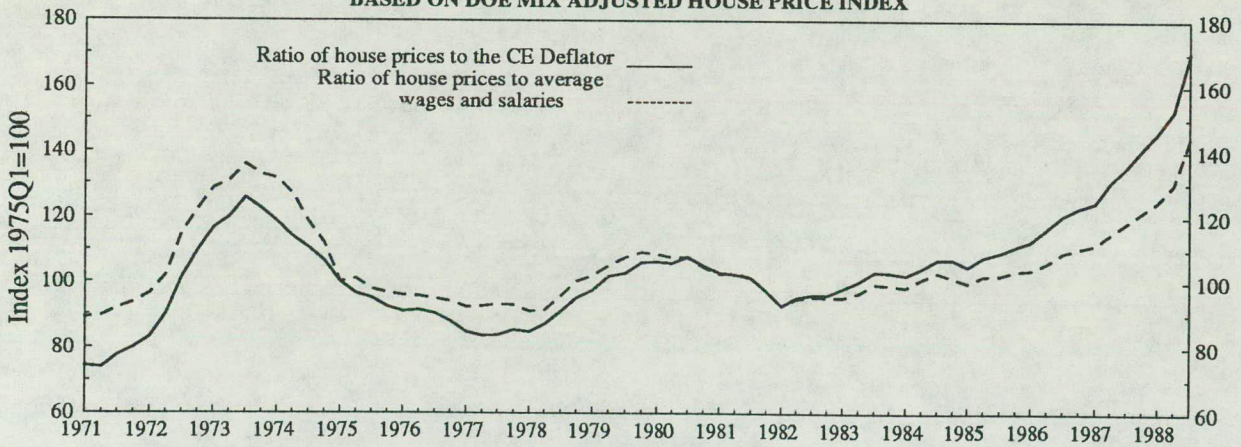


CHART 14 : ANNUAL HOUSE PRICE INFLATION

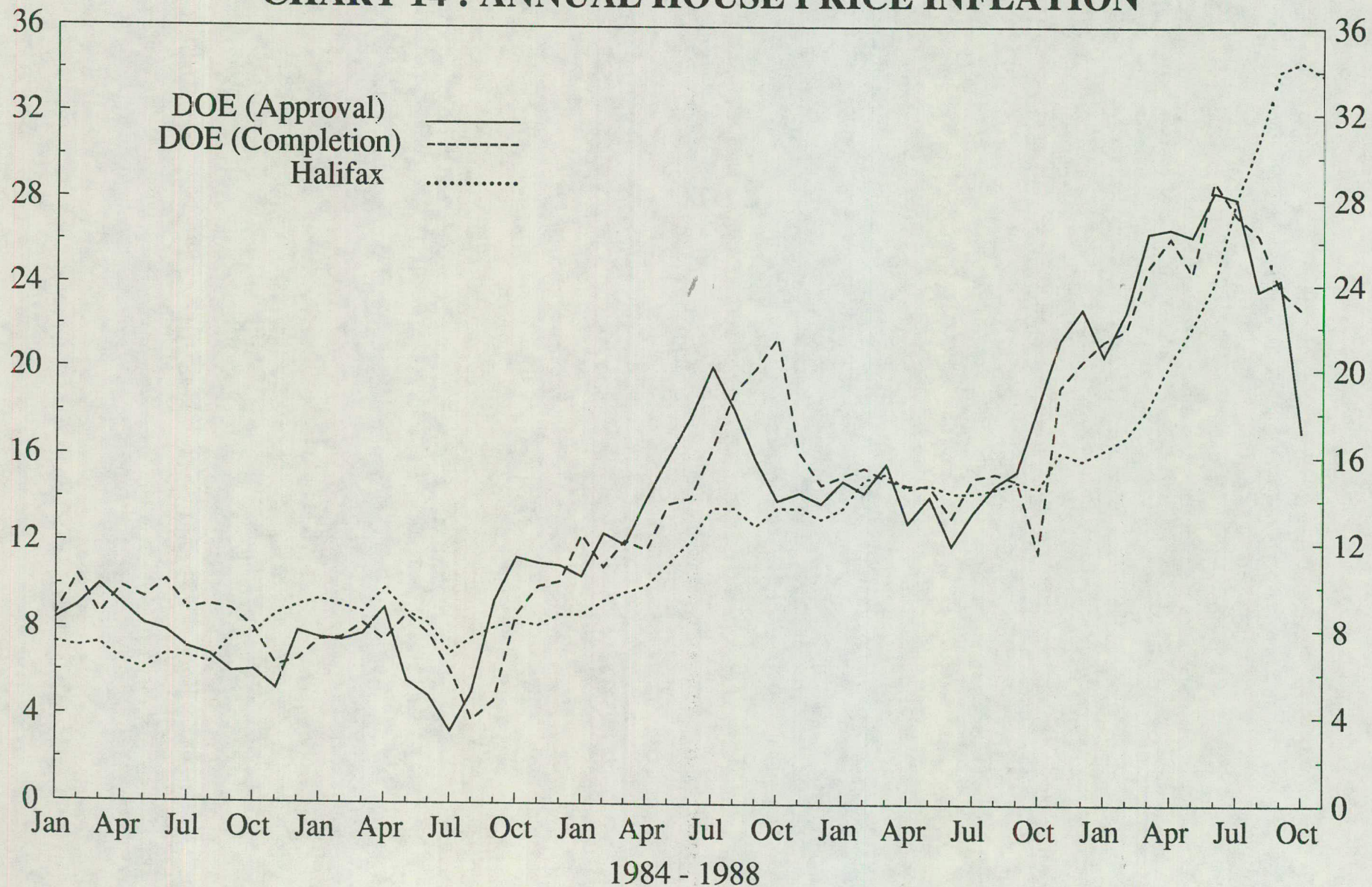


CHART 15 : STOCK INDICES

