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PART B

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BUDGET 1984 TREASURY AND CIVIL SERVICE COMMITTEE
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TAKEN BEFORE THE

TREASURY AND CIVIL SERVICE COMMITTEE

MONDAY 26 MARCH 1984

MR A.M.W. BATTISHILL, MR H.P. EVANS, MR T. LANKESTER, MR J.C. ODLING-SMEE, MR M.C. SCHOLAR and MR G.W. MONGER

Evidence heard in Public

Questions 177 - 347

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MONDAY 26th MARCH 1984

Members present:

Mr Terence Higgins, in the Chair
Mr Anthony Beaumont-Dark
Mr John Browne
Mr Nicholas Budgen
Mr Mark Fisher
Mr Roger Freeman
Mr Ralph Howell
Mr Austin Mitchell
Mr John Townend
Mr Richard Wainwright

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MR A.M.W. BATTISHILL, Under Secretary, Central Unit, MR H.P. EVANS, Under Secretary, Economic Assessment Group, MR T. LANKESTER, Under Secretary, Home Finance Group, MR J.C. ODLING-SMEE, Under Secretary, Medium Term and Policy Analysis Group, MR M.C. SCHOLAR, Under Secretary, General Expenditure Policy Group, and MR G.W. MONGER, Under Secretary, Fiscal Policy Group, H.M. Treasury, called in and examined.

Chairman

177. Mr Battishill, we are most grateful to you and your colleagues for coming along to give evidence on the Budget. As you know, we have already received evidence from the Governor of the Bank of England, the CBI and the TUC, and we are looking forward to taking evidence from the Chancellor himself on Wednesday. This therefore gives us an opportunity to clear a certain amount of the ground in advance of that particular inquiry. We then hope to produce a report ahead of the Second Reading of the Finance Bill. Is there any opening statement you would like to make?

(Mr Battishill) I hope we can be of some assistance to the Committee this afternoon. I have no opening remarks. We are at the Committee's disposal for questions.

178. There are just a couple of points on monetary targets we would like to clear up right at the beginning. We would then turn to the questions of the stance of fiscal policy, then move on to exchange rate policy, the Budget measures themselves, a brief excursion into asset sales and then the Industry Act forecasts. Could I ask you first of all about monetary targets. Back in December 1982 the Bank of England Bulletin said at page 529, "movements in cash are unlikely to be helpful as a guide to general economic or financial conditions", and that was repeated in the Green Paper on Monetary Control in March 1980. But we now have a monetary base target - popularly known as little Mo - and we wondered what had caused you to change your views on the question of whether a monetary base target was appropriate or not?

(Mr Lankester) Mr Chairman, we have changed from a target M1 to target MO, as you say. MO is a measure of narrow money, that is, a money held for transaction purposes. M1 had become increasingly unsatisfactory as a measure of narrow money, largely because of the rapid growth of interest-bearing wholesale deposits. We examined other measures of narrow money and we concluded that MO was now the best available. You referred to the Bank of England quarterly Bulletin article. Recent research which we have conducted in the Treasury suggests that the demand for MO is reasonably stable in relation to non-nominal incomes if proper account was taken of trends in financial innovation.

179. There is no difference between the Bank and yourselves on this?

(Mr Lankester) I think there is little difference at this time.

180. Could I move on to the question of the M3 target range for

1984-85 which has not changed from a year ago, and yet several Budget proposals should facilitate a greater volume of equity and bond financing, thereby diminishing the demand for bank finance. Does that mean the monetary targets are somewhat looser than they were a year ago?

(Mr Lankester) I do not think so. The shorter term impact on the pattern of company finance of the measures in the Budget is designed to help company finance. It is very hard to predict: were they to lead to erratic changes in the pattern for companies enabling companies to raise more in bond market and equities, that would be all to the good. It would allow monetary targets to be achieved with a lower level of government funding.

181. But does that not mean you do not expect the measures in the Budget to have a very significant effect?

(Mr Lankester) As I said, it is very uncertain what they would be. We hope they would be significant, but I think it would be premature for us to say they would in the short run be very significant.

Chairman: Thank you very much. Could we move on to Mr Wainwright who wishes to ask some questions about the stance of fiscal policy.

Mr Wainwright

182. With regard to the figures for the 1984-85 public sector borrowing requirement, Mr Battishill, in the Red Book 1982, in the version of the MTFS there the PSBR for 1984-85 was projected at 2 percent of GDP. Now, with the growth that is expected to take place by 1984-85, one would have expected, if that prediction had been held to, that the percentage of GDP would have come down somewhat, perhaps as much as ½ percent. In fact, it has gone up ¼ percent.

Does this mean that the PSBR projected for 1984-85 is in fact less restrictive than was originally forecast in the earlier versions of the strategy?

(Mr Battishill) I would not agree with that, I think. The figures in the MTFS have always been regarded as broadly indicative. These figures have, as you say, been changed from time tc time. If one wants to look at the measure of present fiscal policy, one has to recognise that the PSBR provided for next year is some three-quarters of a billion lower than that envisaged at the time of last year's Budget and of course it is substantially lower, nearly 2 billion, than the forecast out-turn for this present year. This was decided in the light of a very full assessment of the financial and other prospects. It is a figure which is consistent with falling inflation and with 3 per cent growth and it is a measure of the present stance. It is useful to know that interest rates have fallen.

183. Are there any new additional mechanisms in place now which are intended to reduce the chances of the PSBR over-shooting as much as it has done in 1983/4?

(Mr Battishill) We have given a good deal of attention particularly on the public expenditure side and perhaps Mr Scholar would like to tell you some of the changes we have put in place.

(Mr Scholar) The two principal changes have been that we are going into the year with a much larger reserve, a reserve of 2.75 billion, than we went into last year with. We have not built any shortfall into the figures. We are not expecting any shortfall on the 1984/5 public expenditure total as published. There is a third point, and that is that we will be operating the reserve in a rather different way than the way in which the contingency reserve

was operated in earlier years. As the Committee knows, we think that this will help in the whole process of public expenditure control.

184. But we have been told that for 1984/5 the reserve, for the first time, was to cover both possible policy changes and also, quite differently, the estimating changes. Does not the fact that the reserve may have to bear the strain of both those two separate possibilities make the size of it rather less significant?

(Mr Scholar) It is undoubtedly true that changes of both kinds are now to be required to the reserve so that the increase in the size of the reserve is, in effective terms, somewhat less than one might have at first glance supposed but it is nevertheless, for all that, significantly larger than the reserves we have operated with before.

185. But, Mr Battishill, continuing to investigate the extent of the restrictive nature of 1984/5, the PSBR, since it is accompanied by simply a once-off haul from VAT, imports, as we have already discussed with you, and special asset sales are considerably larger in 1984/5 and the phasing down of capital allowance at a time of industrial recovery is bound to bring forward planned investment programmes as indeed the Chancellor anticipated in his Budget Statement. In the context of all those three measures, is not the net effect of this PSBR in its context considerably less restrictive than last year's?

(Mr Odling-Smee) If you are talking about comparison with the outcome last year, I do not think that is at all so.

186. I should have said I was thinking of the figure that was in the strategy, not the expected outcome which, of course, we do not know yet.

(Mr Odling-Smee) It is very difficult to make comparisons

because a number of things have changed from when the last year's MTFS was drawn up until now. One thing in particular that one might draw attention to is that productivity seems to have grown more rapidly than we had expected and it may be that part of the upward growth which, as you noted earlier, is greater than was anticipated a year ago, may be of a non-cyclical nature; it may be of the more underlying trend nature, which means that the conventional cyclical adjustments which people often make might be inappropriate on this occasion. More generally, I would echo what Mr Battishill has said, that the real test of the restrictiveness within the financial framework which the Government has is the impact of interest rates for given monetary targets and the evidence so far is that excessive pressure is not being put on interest rates.

Chairman

187. But if it is difficult to make comparisons does one nonetheless need to do so because otherwise the strategy becomes rather meaningless, does it not? What we are asking you is, however difficult can you make a comparison and take a view as to whether it is more or less restrictive than last year's plan?

(Mr Odling-Smee) One certainly needs to take a view about the medium-term development in the PSBR in order to judge whether they are likely to allow the monetary targets to be met with an acceptable path for interest rates. That is something that ultimately one can only judge after the event. Before the event, one makes the best assessment one can on the basis of the kinds of things you mention.

Mr Wainwright

188. What evidence does the Treasury have that the rate of productivity is likely to continue to increase? I thought the Red Book sounded a rather cautionary note about that.

(Mr Evans) There is a table in part 3 of the FSBR, table 3.6, which shows the estimates of increases in output per head in the last three years including some book figures in the manufacturing sector. We are indeed expecting those rates of growth which are a good deal bigger than we expected simply on the basis of cyclical recovery that has taken place and we are expecting some smaller rates of growth into 1984/5.

189. As to the effect on interest rates as this 1984/5 PSBR begins to have its effect, do I detect that you are saying that the drop in interest rates almost immediately after the Budget was one of the first fruits of the newly unfolded FSBR and are we expecting the downward trend to continue?

(Mr Evans) The Treasury never made explicit forecasts about interest rates.

190. You have just come very near it.

(Mr Evans) I would not be so bold as to claim that the movement has already taken place as a direct result of the Budget but one might claim it is evidence that the general financial climate has not been worsened by the Budget and over the next year one would expect some improvement.

191. Looking over the next year and not at any pent up effect that there was immediately after the Budget when perhaps banks had been waiting to make sure that the Budget did not contain too many horrid surprises, could you tell us to what extent the Treasury investigates the possible repercussions of a reduced PSBR on private sector borrowing? Just by way of example, take the substantial reduction in the Department of Industry grants to businesses. Do you regard that as likely, in a time of recovery, to mean increased private sector borrowing to make up what they have not had from Government? It is the same with the phasing

out of very large capital allowances - even perhaps in fields like higher education. If a university is docked in its UGC grant, it borrows money or whatever through the banks. What investigation does the Treasury make into the repercussive effect of public sector borrowing requirement on private sector borrowing?

(Mr Odling-Smee) The analysis that we would make would be in terms of the impact on interest rates and hence the incentive for private firms to borrow. If the activities of the public sector are tending to reduce interest rates, that would make it easier for the private sector to borrow. In addition, at the moment the financial position of the corporate sector is very good compared with the last few years. Other things being equal, that would reduce this need to borrow compared with periods when its financial position is not so favourable. That is a statement about its liquidity.

192. The view you have just expressed, that the cash liquidity position of the private sector is relatively good now, is that really based on case by case examinations or is it just a very general impression which may conceal a lot of hard-up firms that want to expand and also, as we know, some cash-rich firms which may not be the ones which want to develop?

(Mr Odling-Smee) It is a figure for the aggregate and within that there will of course be some firms in different positions.

193. Since your answers have suggested that the whole purpose of the MTFS in this coming year - or its major purpose - is to keep interest rates at a satisfactory level, do you not regard the present real interest rates as quite excessively high from the point of view of getting recovery really sustained?

(Mr Odling-Smee) They are certainly higher than in the 1970s. On some measures, they are not all that much higher than in the 1950s and 1960s, and there are many periods in earlier decades when the real interest rates were higher. The evidence is that investment is growing fairly rapidly despite these real interest rates. However, no doubt with lower real interest rates investment would have a greater incentive to rise.

194. Do you agree thatreal interest rates were very, very significantly lower when the country made a remarkably fast recovery in the late 1930s?

(Mr Odling-Smee) Yes.

Mr Mitchell

195. As to the increase in productivity, I think you say on the basis of the census of production figures the whole of the increase in output per head can be more than accounted for by the closures.

We have closed an enormous amount of capacity in the last four years of the least efficient firms; it is not only real increase in productivity. Would that be so?

(Mr Evans) I think it varies a great deal. There is a good deal of evidence of a number of contributions to the growth in productivity. Certainly closure of least efficient firms has been one aspect of it.

196. The dominant aspect?

(Mr Evans) No, I think there is evidence that increasing efficiency of the individual firms has also made a contribution. One can easily cite examples - BL and steel - of individual plants having increased their productivity.

197. Can I go back to the point Mr Wainwright started on? I am interested in the stance. First ofall, it could be argued that our stance, given the fact that we have got to make allowance for spending on unemployment which is not really counted as cyclical spending at all, because we are in surplus once you have allowed for unemployment, is very contractionary in fiscal terms. I wonder if this has any relationship to the fact that here unemployment is increasing whereas in the United States, where Keynes still seems to be alive and well and living in the Reagan Administration somewhere, they are in considerable deficit and yet unemployment has fallen by about 4 million over the last period of just over a year. Are these two things related, our contractionary stance and the increase in unemployment, their expansionary stance and the fall in unemployment?

(Mr Odling-Smee) The increase in unemployment has been taking place over a very long time and I think on the kind of measures you are talking about you would have found during some of the years when

unemployment was increasing a fiscal stance which on your terms you might have called expansionary. So I am not sure that one can make a simple correlation of that sort.

198. Could it be argued that, if we had an expansionist stance now, we would be bringing unemployment down?

(Mr Odling-Smee) I think a more expansionary stance in the sense of larger PSBR would put up the pressure on interest rates and that could prevent any expansionary effects on the private expenditure that would come from the direct effects of the tax cut on expenditure.

199. That is the connection with interest rates. Have you seen the comment put out by Butler Tillett - it is a long article by David Llewelyn, who at one time was an economist at the Treasury - stating that in fiscal 1983 the federal deficit in the States widened by 75 percent with no increase in interest rates. Why was that?

(Mr Odling-Smee) I am afraid I am not an expert on the United States economy. The interest rates were already very high at the beginning of that period. It may be that markets thought the existing height of interest rates fully took account of the expected deficits in the future.

200. You were just telling us there was a connection with the PSBR and interest rates that would put up interest rates. Mr Llewelyn comments that this connection is mythical. One of the major elements of the Government's economic and financial policy seems to bewithout firm theoretical support or clear empirical foundation. Can you tell us the precise mechanisms by which a given set of money supply targets, an increase in the PSBR, is going to put up interest rates, and can you tell us what empirical evidence there is for that?

(Mr Odling-Smee) The Treasury or anybody else who argues that there is a connection between public borrowing and interest rates (there are many who do this, including many in the United States Administration) have always said that it is not a simple and straightforward correlation which you could observe by putting two sets of figures against each other in a two-dimensional plane.

201. As a basis of policy here we are not increasing PSBR when it is admitted that increasing the PSBR would bring down unemployment because of the effects on interest rates.

(Mr Odling-Smee) No. The Government strategy is based on the relationship over a period of years which is not something that comes through very clearly in looking at shorter terms data.

202. Are there any circumstances in which for a given set of money supply targets an increase in the PSBR will not raise interest rates?

(Mr Odling-Smee) I cannot think of any circumstances in which that would be so, if the increase in the PSBR were sustained

203. If, for instance, the PSBR were two billion higher than is estimated in the medium term financial strategy, and assuming the Governemnt's targets for revenues from assets sales were met, what is the likely range of interest rate changes that would follow from such an increase of two billion?

(Mr Odling-Smee) It depends partly on whether the increase in PSBR is perceived to be one which would be sustained for year after year as is perceived apparently in the United States. If that is the case, one would expect a rise in interest rates which would be sustained.

Chairman

204. There is rather an important point there. We have already been in receipt of evidence from the Governor of the Bank of

England that its understanding of Government policy is that the intention is to fund the whole of the PSBR from the non-bank public. Now, would you like to reply to Mr Mitchell's question in that context?

(Mr Odling-Smee) Well, it is certainly possible that, if the Government chooses not to fund the whole PSBR, then it could avoid a rise in interest rates for a short time.

205. We are assured that is their policy.

(Mr Odling-Smee) The reply I was giving was on the assumption that the Government wished to fund the increase in PSBR by selling debtand, in order to encourage people to hold that extra debt, it would be necessary to raise interest rates. That was the underlying relationship.

Mr Mitchell

206. For a short time there would not be an increase in interest rates if it were done that way?

(Mr Odling-Smee) I think the increase in interest rates would be necessary from the very beginning if markets perceived this was a permanent increase in the PSBR.

207. So an increase in borrowing in the United States does not produce an increase in interest rates, but it would here?

(Mr Odling-Smee) It did produce an increase in interest rates two years ago in the United States.

208. A 75 percent increase in fiscal 1983 did not produce an increase in interest rates.

(Mr Odling-Smee) I am not an expert on the United States but I have heard it said already financial markets in the United States were discounting the increase in the deficit which

took place last year, and interest rates have already taken that into account; therefore, there was no extra rise in interest rates necessary to satisfy the financial markets.

209. Would an increase in interest rates not have anything to do with alternative outlets in investment? I am wondering why it can be so fervently asserted that an increase in the Public Sector Borrowing Requirement would increase interest rates, whereas it can also be said that to abolish exchange control and let investment money flow overseas at the rate it is does not have any effect on interest rates.

(Mr Odling-Smee) If you want me to construct a hypothetical example, if you could have an increase in the borrowing requirement which would not be associated with an increase in interest rates over the whole of the population, in those circumstances, the Government could offload that paper without having to impose interest rates. There are situations in which that could occur and I do not know whether these hypothetical questions are of interest.

Mr Howell

210. I wonder if I could ask a few questions about the thinking behind the raising of the personal allowance and the attempt to make a start on eliminating the poverty trap and the unemployment trap. Has any work been done as to how great the relief would have to be in order to solve this problem?

(Mr Monger) The increase would have to be very substantial indeed to solve the poverty and unemployment trap completely. I cannot give you a figure but it would be very expensive.

211. Something like 15 billions to get to a reasonable ----- ?

(Mr Monger) A great deal of money. I would not like to

say 15 billion but it is going to be a long hard haul to solve the poverty trap by increases in personal allowance.

212. While we are indexing benefits to a greater extent, more than 100 per cent, which we have been doing for the last four or five years, this problem keeps getting larger. Would you agree with that?

(Mr Monger) It depends what you do with income tax allowances. They have increased in real terms over the last couple of years especially in this budget, so the relativity is what matters in this context.

213. Surely there are not nearly as many people caught in the poverty trap as there were before? I believe there will be a few more people taken out of tax but not a great number more than in any normal year?

(Mr Monger) The number of people taken out of the poverty trap by the budget is about 10,000. That figure is fairly small because the tax threshold, even at its new level of about £60 a week, is less than the level of earnings which most people in the poverty trap get. You have therefore got to raise the threshold by quite a lot to make an impact on the poverty trap and that is something which will take several years.

214. What time period have the Government in mind for getting back to rational tax levels?

(Mr Monger) I do not think it is possible to fix a definite year. Just as soon as we can.

215. The great problem is of course that we have been overshooting in expenditure and therefore there is very little room for manoeuvre in this direction. What reasons are there for believing that now we are going to hit the target of public expenditure?

(Mr Scholar) We would dispute the statement that we have been overshooting expenditure consistently. It is true that in 1983/4 the public expenditure planning total upturn is currently expected to be about a billion higher than we expected at the time of the Budget in 1983. That is rather less than 1 per cent higher but in earlier years we have not seen a cash overshoot in that sense and, as I explained earlier to Mr Wainwright, we hope that the changes that we have put in place this year will mean that there will be no overshoot for 1984/5.

216. Would you agree that unless we do something more substantial and drastic we are never really going to solve this problem of incentives and encourage people to take up work?

(Mr Monger) There is no easy solution. It will take a long time and a lot of money. I do not think you can do anything drastic overnight It is a matter of political judgment but I cannot see what can be done overnight to solve the poverty trap.

217. Would you not agree that if over-manning in local government, for instance, had been reduced as much as the Civil Service has been reduced, there would be quite a lot of money released for this purpose?

(Mr Scholar) It is true that the local government manpower figures are very disappointing. The most recent figures that we saw last week relating to the December joint manpower watch showed that local government manpower has now been rising for three successive quarters. I would agree with you that if there had been the reduction in local government manpower that we have seen in the Civil Service manpower you would not have seen the substantial increase in local government expenditure that we have over the last four or five years.

218. It seems to me the Government have very little control

over something like three-quarters and more than three-quarters of public sector manpower and yet this would be the thing which would be vital in order to get some room for manoeuvre.

(Mr Scholar) Again, the Government has direct control, obviously, over its own employees in the Civil Service, the armed forces and the National Health Service, but so far as the local authorities are concerned it can attempt to influence the level of their expenditure but it has no direct mechanism for controlling manpower.

219. It has not really got any control over the National Health Service manpower. It is only just finding out how many people it employs and so it seems to me that only about nine-tenths of the public sector manpower is under the direct control of the Government.

(Mr Scholar) Of course, with the National Health Service manpower, in the absence of ideal descriptions of the output of the National Health Service or the public expenditure programme, one sometimes reads the money spent on the National Health Service or the number of people employed on the National Health Service being used as a proxy to describe what priority the Government gives to the National Health Service. In that situation, it is quite difficult for the Government both to claim that it gives a high priority to the National Health Service and at the same time to know the numbers employed in the National Health Service.

220. Can I ask one other question about the cost of unemployment and job creation. There seems to be no real thought, or at least not as displayed in the Red Book or in the Public Expenditure White Paper, as to the amount which is being spent on unemployment support and job creation but, as far as the Expenditure White Paper is

concerned, we are talking about a reduced expenditure on unemployment. Could we have a comment on that?

(Mr Scholar) The Public Expenditure White Paper has two places where these expenditures are stored. Under the social security programme, the cost of maintaining financial support for the unemployed is spread out and then in the industry, trade and employment programme, there is a specification for the money spent on job creation and job support measures of various kinds. Both those amounts have increased quite markedly in recent years.

Mr Fisher

221. I think you used the words that it would be a long hard slog by means of thresholds and allowances and you mentioned 10,000, which, if I remember, was the same figure as was taken out of the 14 per cent increase in last year's Budget. What estimates have you made on the effectiveness of increasing child benefit in tackling the poverty trap.

(Mr Monger) Increases in child benefit clearly are another way of improving the poverty and unemployment traps and the balance between the two is a matter of political judgment.

One thing, of course, is that in cases of increases of child benefit that only helps those with children, only 6 million, whereas tax allowance will help 20 million including single people; that is a consideration. Basically it is a matter of political judgement.

222. What estimates did you make? For instance, presumably in trying to help the Chancellor make those political judgements you made estimates of what the effectiveness of an increase in child benefit of 95p would be. How many families would thataffect?

(Mr Monger) I do not know the figure of the number of families for any particular level of child benefit. Certainly we providedthe Chancellor with figures and analyses comparing the two.

223. You cannot give the figures?

(Mr Monger) I have not got them in my head.

224. Could you give them in a note?

(Mr Monger) I will see.

Chairman

225. If they were available, there is no reason why you should not give them in a note. In this context, what we are after is whether a given expenditure, say, by raising the tax threshold, takes so many people out of the poverty trap or the unemployment trap on the onehand as compared with the same level of expenditure on child benefit. I think that is essentially what Mr Fisher would require.

(Mr Battishill) We will see what we can provide.

Mr Beaumont-Dark

226. If I could just go a little more into the thinking, if that is the word, behind what has happened with the tax on banks and how banks have been treated, just as a guide to the simple, would you agree that in the economic problems we have been facing in

the restructuring of industry the banks have played a major part, particularly with their nursery units where they have often lent money beyond what woul d be called normal prudence on the grounds that they had a major part to play in funding industry over its early and sometimes continuing difficulties.

(Mr Lankester) I would certainly agree with that.

227. Good. Would you agree that there was a one-off tax before which was the banking system's reward for involving itself in that exercise? Is that right?

(Mr Lankester) There was a one-off tax.

228. Whether or not it was a reward, there was a one-off tax.

(Mr Lankester) There was a one-off tax. On this occasion I think you are implying the banks will be affected.

229. I have not got to that yet. You just answer the questions, I will ask them.

(Mr Lankester) There was a one-off tax.

230. Thank you. Would you agree also that overseas it is very important for us to have the highest ratings for our banks?

(Mr Lankester) Yes.

231. Did you see that the coveted 3As rating has now been put on one side for British banks, or they are contemplating that? Have you seen that?

(Mr Lankester) I do not think it has been put on one side. I may have misread the report; my impression was that the rating agencies in New York had said that they would examine the rating of the United Kingdom.

232. They put it on report. They think what has happened to the banks in the Budget is somewhat less than helpful, would you agree with that?

(Mr Lankester) I would agree that the banks have been affected by what has happened in the Budget, principally by the new composite rate arrangements and also by the corporation tax blanket. I believe the second of these is the more significant.

Beaumont-
Mr /Dark: We shall be coming to that. One of our economic advisers - he is not alone in this - said he believes that roughly a billion pounds will be payable from the big four banks to the Treasury because of Budget changes with leasing, corporate tax, composite tax, etc. Do you think that is a fair figure.

Chairman: I gather the witness is having trouble hearing the questions. I should explain that the acoustics in this room are diabolically bad and we are always very conscious that it is easier for us to hear the witnesses than it is for those sitting behind them. If everyone would speak up to a reasonable degree, it would help.

Mr Beaumont-Dark

233. It is the first time I have ever been asked to speak up One of our economic advisers (he is not alone) says that banks will pay roughly £1 billion, which is about 12 percent of their net assets, in extra taxation. Do you think that seems a fair summary of the situation?

(Mr Lankester) It is extremely difficult to estimate on the increased tax payable by the banks as a result of the corporation tax package changes; that depends on a whole range of different assumptions. We have discussed a number of different scenarios. I think all we can say is that we very much agree with the remarks the Governor of the Bank of England made to the Committee last week, that

an even worse scenario ------

234. Could you speak up as well, as a quid pro quo?

(Mr Lankester) We very much agree there could be a worse scenario. It could be significant, it would not be grounds for anxiety in respect -----

235. Serious, not grave, I think he said in answer to a question I asked him. Why do you think that in particular the banks then have been singled out on two occasions? It may well be that obviously they are too prosperous, but why on two occasions when the banks have been supposed to be doing their best for industry, when they have done their best for industry, have they ended up being clobbered? Do you think that is a good thing or not?

(Mr Lankester) I do not accept the premise. I do not think they have been clobbered. The corporation tax changes that have been made are being proceeded with on wider grounds. The composite rate arrangements -- Let me go back. When I say "wider grounds", on grounds of putting an end to some of the distortions which have been affecting investment in this country.

236. It may not have been the intention, just as someone who is careless with a gun may not intend to kill you but if the bullet hits you they may do so. It is the same with the banks, is it not? The view they have taken is that it is going to mean - and this may be exaggerating - a lot of industry they are helping or might have helped they may not now be in a position to help. So would that not be a bad thing for industry?

(Mr Lankester) I think it would be a bad thing for industry.

(Mr Battishill) Chairman, could I just say one thing

on this because it is an important question. If Mr Beaumont-Dark has in mind particularly the effects of leasing, which had a good deal of attention in the press, I was particularly heartened by the remarks of the Chairman of the Leasing Association who has obviously closely followed the consequences of the changes in capital allowance structure. Having done so, his conclusion as shown in his press release last week was that his Association does not seem to believe that the high level of first year allowances, which is really what we are talking about here, is essentially bad for leasing. He made the point that leasing is very successful in some other countries which do not have the high level of accelerated allowances which we have in this country. One has to take a balanced view of the consequences of these changes. As Mr Lankester says, it is extremely difficult at this stage to forecast precisely what the effects will be.

237. On the composite rate of tax, I am not saying it is a tax on banks, it just happens to turn out like that. The banking industry say they think this could affect - not that they would lose them all - up to £3 billion to £4 billion worth of deposits. If they lost a goodly part of those, that would also curtail their strength; hence the Wall Street suggested change in rating and, of course, share prices plummeting in banks while the rest of the market is going up. Is this really the right time to put the banks in a position where they may be able to be less adventurous with their lending just at a time when industry is coming out of a recession and will need to be able to borrow more cash? That is the point I am trying to get at.

(Mr Lankester) I think, as you suggest, it is very

unlikely that they would lose deposits of £3 billion to £4 billion. Certainly they would not in the next year or two. Furthermore, I would think that the banks would to some extent put up their deposit rates in order to prevent the outflow. In addition, the building societies would be the main beneficiaries of this inflow and they would be likely to reduce the rates which they would pay if this inflow were to be coming to them on a large scale. The Chancellor has announced no change in the national savings target, so again there is no additional flow in that direction; that would suggest a reduction in national savings. All this suggests the estimates of what might be additional cost in terms of raising money may have been rather overestimated and the effect on the cost of funds to the banks in fact is likely to be quite insignificant.

238. On your own words, with which I agree, if margins are likely to be narrowed because of this change, does that not mean they will go back to the traditional banking which, bluntly, successive governments tried to get them away from? Will they not be more inclined to do what we all call the "good risks", what they call the "3As" of Wall Street? Would that not be bad for manufacturing industry?

(Mr Lankester) I agree it would.

239. So you agree that there is a possibility?

(Mr Lankester) I think this is a fairly marginal change. The effects are going to be spread out over quite a time. When you consider the fact that interest base rates have moved by ½ per cent after the Budget, the effect of interest rates from the composite rate changes is likely to be really quite small as compared with even a change in interest rates.

240. Do you think, if the banks were less adventurous and lent less, it would make it easier to meet monetary targets?

(Mr Lankester) Yes.

241. In other words, it would make it easier to meet monetary targets even if industry suffers, which often it does, when monetary targets are strictly adhered to?

(Mr Lankester) I cannot quarrel with the logic.

242. Would you agree that in recent years the banks have not made a reasonable contribution in tax from their profits to the national Exchequer?

(Mr Lankester) I would say that they have not made a very large contribution.

243. You would agree with that?

(Mr Lankester) Absolutely.

244. Do you agree that one of the fundamental changes in the Budget is that the cost of employing labour has been reduced as opposed to the cost of installing capital equipment?

(Mr Battishill) That certainly must be so.

245. Have the Treasury investigated the effect of these changes on the relative costs?

(Mr Battishill) It is the kind of calculation which is extremely difficult to do. The National Insurance Surcharge reduction of 1 per cent is a fairly straightforward calculation but the calculations stemming from the whole system of corporation tax are much more complicated.

246. But I said, have the Treasury made estimates of the effect of these changes on costs? You answered in respect of the National Insurance Surcharge.

(Mr Odling-Smee) We have made some estimates on assumptions about companies in certain positions. As companies are in a whole range of positions and we do not know the details about the individual companies, we do not know the combination of tax overhang, investment

plans and profits for individual companies, so we cannot do it at an aggregated level but we have done it for companies in straightforward positions so we have measured the effect of changes in the tax system upon cost of capital for a company which does not have any tax overhang.

247. Would it be possible for you to let us have the details of that?

(Mr Odling-Smee) Yes, I should think so.

248. What are your expectations about the effect on investments in the long term of these changes after the phasing out?

(Mr Odling-Smee) It differs according to the position of the company, also according to whether we are talking about plant and machinery in the industrial or commercial buildings or other kinds of assets. Taking plant and machinery and industrial buildings, if the investment is financed by debt rather than by equity, the cost of capital for a company which does not have any tax overhang will rise. In the long term, we would expect that would remove some of the inefficient and some of the less productive investment which might otherwise have been done. It might also stimulate some of the more productive investment or at least, I should say, a reduction in the corporation tax rate might stimulate additional investment of a more productive kind which companies might not have been aware of or able to make before. In the case of commercial buildings, to some extent the opposite will occur because the cost of capital falls in the case of commercial buildings so one would expect more investment in those cases. In the case of investment which is financed from equity, the change in the cost of capital is much less, so a smaller effect would be noticed. Because of the differential effects of the tax change on investment financed from equity, and investment financed from debt, we would expect some

switch in the source of finance towards equity and away from debt.

249. The purpose of the changes was to remove the distortions and to encourage the employment of labour. Would there not have been a good argument for doing it immediately rather than phasing it and by phasing are we not going to bring forward a considerable amount of capital expenditure which, in itself, might reduce employment opportunities in the short term?

(Mr Odling-Smee) The argument for phasing it rather than doing it overnight is to give companies which have long-term plans already in existence time to adjust them. It is the usual argument for not doing things suddenly. It is true that had it been done overnight that would have made it difficult for companies to take advantage of the old regime in the knowledge that it was on the way out, as it were, and therefore there might have been less bringing forward of investment.

250. Would you agree that any improvement in job prospects will not take place to any significant effect until after phasing out is completed?

(Mr Odling-Smee) I would expect companies would be making longer-term plans already and the investment they will make will take account of the fact that the relative cost of labour will be lower than during the life of the project, even if not after the date at which they undertake the investment. Also, the National Insurance Surcharge will be reduced from October of this year which is fairly soon.

Chairman

251. What you are saying is that the effect of the changes will be to raise the cost of capital of the company and also to reduce the cost of labour relative to capital, but it would also seem likely that the absolute cost of labour in those circumstances will tend to

rise. That being so, will not the overall effect, as far as the individual firm is concerned, be to increase total costs?

(Mr Odling-Smee) I do not think I said the absolute costs of labour would rise compared with what would have happened in the absence of these Budget measures.

252. Why not, because the demand for labour is presumably increasing?

(Mr Odling-Smee) The demand for labour is increasing more because of the reduction in the cost of it rather than for some extraneous reason. It is the reduction in the cost because of the reduction of the National Insurance Surcharge. In the longer term, after another year or two, perhaps there will be some additional demand coming from the higher cost of capital.

253. Yes, that is the effect of the National Insurance Surcharge change. Leaving that on one side, would the overall effect not be to increase total costs for the individual firm?

(Mr Odling-Smee) Yes, if there was an increased demand for labour, one would expect some increase.

254. And the cost of capital has also gone up?

(Mr Odling-Smee) Yes. The cost of capital goes up on the marginal project but for companies which are earning above that the reduction in corporation tax rate will increase their profits.

(Mr Battishill) And the marginal cost of capital for commercial buildings investment will go down to complete the picture.

Mr Budgen

255. Can I take up with Mr Lankester his exchange with Mr Beaumont-Dark a few moments ago. Mr Beaumont-Dark rolled up the one-off tax on the banks with the change in the capital allowance announced in this Budget, but are they not entirely

different because if you take the one-off tax, though you might not wish to express a value judgment about this, the one-off tax was admitted by the then Chief Secretary, Mr Brittan, to be retrospective and you will know that there are at least some people who take an interest in politics who think retrospective taxation is not a very good thing, so that is surely a quite different tax to the changed tax position in two years' time announced by the Chancellor in this Budget, is it not?

(Mr Lankester) I agree absolutely and this is not a tax on banks.

Mr Budgen: When one comes to look at the position in two years' time, firstly is it not right that the system of capital allowances was thought up in order to directly benefit manufacturing industry? It was not intended to be a tax shelter for the banks, was it?

Chairman: If you nod, I am afraid the shorthand writers do not get it down.

Mr Budgen

256. Very often when a tax shelter is withdrawn, it is withdrawn forthwith, is it not?

(Mr Battishill) Yes, quite often that occurs.

Chairman

257. We were just waiting for Mr Lankester to say it.

(Mr Lankester) I do not cover the whole tax area. I was trying to think.

Mr Budgen

258. In general, if something is described as a tax shelter (which is usually a slightly disapproving term, is it not?), then the shelter is withdrawn forthwith. Here the shelter is to remain in place for two years and is expressed to be likely to be more hospitable because it is known to be going during that two years. Can the banks be said to have anything very much to complain about if they have two years to enjoy that shelter?

(Mr Lankester) Certainly if it was being withdrawn immediately it would have a much more serious effect.

259. Dealing with Mr Beaumont-Dark's point about the way the banks support failing industry, if you are right in saying that the liquidity position of industry generally is quite good at present, and if at any rate the Chancellor is right in assuming 2 percent real growth for the next couple of years, is it not likely that industry in two years time may be able to find some of its own money for reinvestment purposes? You are nodding in approval?

(Mr Lankester) Yes. We would hope not only would industry have more money from internal tensions but also that it

would borrow more on the market and also raise more money through equities. This goes back to the first question.

260. Is it also not the case that, if the banks have got two years warning that the shelter is going and that they are, in effect, being encouraged to make more use of the shelter in the two years, if they feel their tax burden is going to increase they have every opportunity to put aside funds to meet that increased tax burden? Is that not right?

(Mr Lankester) Yes, they have that opportunity. On the other hand, it does have to be said it is likely that banks' auditors will require higher provisions in the next two or three years. The amounts are very uncertain, as I said earlier.

Mr Budgen: You will not want to answer this question: in summary, they were disgracefully and unconstitutionally treated in the past but they have nothing to squeal about now, have they?

Chairman: I do not think that is really a question. I think we should probably move on. Mr Freeman has various questions on asset sales.

Mr Freeman

261. Gentlemen, can I return to the almost endless mental sparring match that we seem to have on the question of asset sales? I can assure you we will not regard the conclusion of this day's session as being in any sense final. I would like to raise three questions which relate essentially to your effective dismissal in the memorandum dated 20th March of our recommendations in the First Report from this Committee concerning asset sales. The first of my questions relates to your statement in paragraph 2 of the memorandum which says "The Government fully accept that asset sales

need to be taken into account in deciding on the appropriate level of public borrowing." That is a fairly clear statement. But, of course, it does not deal with emergency sales, into which category I would put, for example, the BP share sale of July last year. Indeed, I would be grateful if you would confirm that the Chancellor will presumably never deny himself the ability to increase the planned level of asset sales to a higher figure in order to hold public expenditure down. Would you confirm that?

(Mr Odling-Smee) I think Chancellor very rarely voluntarily turn down the possibility of using a particular measure in future.

262. I am glad you gave that particular answer, because it means that the first sentence I read out in paragraph 2 probably would need some amendment, would it not, because what you surely cannot say is that the Government fully accepts that asset sales need to be taken into account if, indeed, the Chancellor may vary the level of asset sales during the course of the year. Looking back on what you wrote, would you not agree that perhaps some amendment might be appropriate, indicating that you were only referring to planned asset sales? That is clearly what you had in mind, rather than asset sales programmes as a whole?

(Mr Odling-Smee) That would be one interpretation. One could also say that if for some reason concerned with the wish to sell a particular asset independently of general financial strategy it were decided to speed up or slow down an asset sale or make a new asset sale, then this sentence would suggest that some reconsideration might be given to the appropriate level of borrowing, but I think what you need rather than an amendment to the sentence is an interpretation of these words "taken into account", which of course could mean a lot of things.

Chairman

263. Why did you not define them? There is no point in putting up memoranda which are open to many different interpretations when you do not attempt any of them,

(Mr Odling-Smee) The central interpretation, the one which has been referred to on a number of occasions and has been referred to in chapter 2 of the FSBR, is that asset sales have less of an effect on interest rates than do most other kinds of reduction in public expenditure or than do most kinds of tax increases and, therefore, to the extent that the public sector borrowing requirement is set with a view to having a particular impact on the interest rates or given monetary targets, the more the asset sales increase the lower the public expenditure target would have to be. That was the interpretation intended and I think most people took it to be that.

Chairman: That is very helpful, thank you.

Mr Freeman

264. Perhaps I could move on to the second question which relates to paragraph 33 of our report which is on page xiv. This is the First Report of this Committee on the Government's economic policy statement and the latter part of that paragraph says that, although sales of gilt-edged securities and special asset sales may have slightly different effects - that is, different monetary effects - their fundamental impact on interest rates in general is likely to be very similar. My understanding from reading your memorandum of 20th March is that you totally disagree with that statement. I would be grateful if you could spell out for the benefit of the Committee why you disagree with that.

(Mr Odling-Smee) No, I do not think we do totally disagree with that. We would argue that asset sales, and sales of gilt-edged securities, both alter interest rates in the markets where they have most impact, and as a result they may alter relative interest rates between different assets, but that they may not have a very large impact on the general level of short-term interest rates. I do not think there is anything in our memorandum of last week or whenever that contradicts that.

265. Let me read paragraph 7. What I am getting at is that the Committee's report was arguing that the fundamental effect on interest rates of asset sales and gilt-edged sales to fund the public sector borrowing requirement was likely to be very similar. I must say I read paragraphs 5 and 7 of your memorandum as implying that you did not agree with that. You say in paragraph 7, "Asset sales are towards one end of the spectrum of public sector transactions in terms of their effect on financial conditions." In your very helpful paragraph 5 you spell out the various ways on various assumptions in which asset sales can affect interest rates. Are you not saying we have been too simplistic in our assumptions and in certain circumstances asset sales, for example, if financed by selling equities - if institutions sell equities and purchase shares in British Telecom - are simply a switch of equities and might have no effect upon the level of interest rates in the gilt-edged market?

(Mr Odling-Smee) I think it would be unlikely to have no effect but I agree that it would not have a very large effect and I do not think we would accuse your paragraph of being simplistic. It is not very far removed from our thinking in that respect.

266. Could I ask you, still on the second question, do you have any evidence or have you looked for any evidence on how asset sales

are being financed? Who purchases the shares of the entities privatised and from what sources are they financing?

(Mr Odling-Smee) I do not think we have looked at that. It may be something the Bank of England have done.

267. I think we have had some evidence on that point in the past but not from the Treasury. Could I move to the third question which is the other reason you give for not accepting our recommendation which is that you believe that our recommendation would create asymmetry. You are treating asset purchases as public expenditure and asset sales as a deduction from public expenditure. That, as far as I am concerned, seems almost asymmetry. Would you not agree that perhaps if you wished to create perfect symmetry you should treat other asset sales as revenue? I will ask you that question before I ask you the second question.

(Mr Odling-Smee) There is a kind of symmetry there. Yes, I see that. There is also symmetry in our way. I am not sure how one compares different kinds of symmetry.

Chairman

268. There are many ways of being different but only one of being the same!

(Mr Odling-Smee) If I may try and explain a little why our type of symmetry produces a neater result in pure accounting terms, in terms of the National Council and concepts of that sort, the reason why it is logical to treat asset sales or, more generally the sale of an asset to another sector in the economy, as negative expenditure rather than as receipts, is so that when you look at the economy as a whole and you have a number of sectors within each of which you are treating their acquisitions of assets from other sectors as positive expenditure and their sales of assets to other

sectors as negative expenditure, all those net out when you add up investment across the whole economy and you get the correct figure for total investment in the economy. If you were to do it your way -----

Mr Freeman

269. I did not say it was my way.

(Mr Odling-Smee) The alternative way. If you were to treat them as receipts, when you aggregate it across all sectors in the economy you would find total expenditure of assets and capital (both new capital and purchases from other sectors) would exceed the total amount of investment in the economy and then you have some problem of reconciliation somewhere in the accounts, but the reason why the statisticians and ourselves prefer to stick to the conventional system is so that that is not necessary.

270. Would you have any objection in principle to showing the calculation, as it were, a stage before the calculation of the Public Sector Borrowing Requirement? For example, the public sector financing requirement which is met from asset sales, leaving the residual being the Public Sector Borrowing Requirement?

(Mr Odling-Smee) The public sector financial deficit is already shown separately in financial statistics and elsewhere.

271. The asset sales are still shown as a deduction from public expenditure?

(Mr Odling-Smee) Yes. If your question is about what is the total of public expenditure that we would like to maintain for control purposes, perhaps I could ask Mr Scholar to answer that.

(Mr Scholar) There is a control point here. We treat sales of special assets in the same way as we treat sales of assets throughout the public expenditure. I think there is a point of control in our treatment of special sales in this regard. In some

cases, we wish to control a programme and to say to those who manage the programme, "Right, you can live within this particular cash total and we are prepared to let you dispose of some assets and to make some realisations from these assets and to live within that total", so it is part of the control system.

272. Can I ask you about capital accounting within the public sector? Has there been any research or thinking done on splitting public expenditure between current and capital showing therefore both asset purchases and sales as indeed used to happen in public sector accounts years ago? I suppose I must couple that with further work of calculating depreciation charges on public assets. Where does this research stand, if at all, in the Treasury?

(Mr Scholar) I am not aware of any research on the lines you suggest. I would assert that the way in which we present the accounts already incorporates that. The capital state of the public expenditure accounts already strikes the asset sales as and when they occur and it is possible to do an analysis as one wishes of different parts of the public expenditure accounts.

Chairman: We would like to turn now to the Industry Act forecasts.

Mr Fisher

273. Turning particularly to the Green Paper, paragraph 49, it says that conditions are sustained for continuing economic growth and higher employment. What evidence is there for the average real rate of growth in these forecasts of 2¼ per cent?

(Mr Odling-Smee) It is very difficult to find evidence about developments over such a long period ahead so these are more in the nature of assumptions about what is feasible and likely in the light of historical experience. If we are referring to the Green Paper, there are some numbers in the back of that in Annex 3

which show growth rates not at all different from that, usually averaging between 1½ and 2½ per cent over the last 100 years or so, although the growth was highest in the Fifties and Sixties and somewhat lower in the Seventies.

274. Can we conclude that in the first of these years you anticipate a 3 per cent rate of growth and therefore to get your 2¼ per cent you see a decline in growth in subsequent years to possibly 2 per cent? Is that right?

(Mr Odling-Smee) Yes.

275. Why do you see this decline?

(Mr Odling Smee) There are two reasons I might mention. One is that in the early stages of a recovery one expects to see somewhat faster growth than might be sustainable over the medium and long term. Secondly, our projections for the production from the North Sea show more of a decline in the latter part of the period than in the first couple of years.

276. Presumably you see no significant increase in consumer demand in these years if you are showing a decline in output?

(Mr Odling-Smee) No acceleration of consumer expenditure.

277. Would it not therefore be fair to make the assumption that you see an increase in unemployment and that is your estimate in these years?

(Mr Odling-Smee) No, we do not see an increase in unemployment in these years. This rate of growth of 2¼ per cent is quite consistent with a reduction in unemployment.

278. That would be very surprising indeed, I would have thought, but if that is your view presumably you were actually basing on that on estimates of unemployment. What are your estimates of unemployment for these years?

(Mr Odling-Smee) We do not have precise estimates of

unemployment over the whole period. What will happen to unemployment depends very much on develcpments in productivity which, as I said earlier and as Mr Evans also said, is very difficult to predict.

279. But you have just said that it would be consistent to assume unemployment will be going down over these years. What are your thoughts about a reduction in unemployment, having said there is going to be one?

(Mr Odling-Smee) I said that this assumption of output growth was consistent with decline in unemployment. It is consistent if one takes the Department of Employment projections that they supply which show a growth of just a little below $\frac{1}{2}$ per cent a year on average over the five-year period together with a growth of $2\frac{1}{4}$ per cent in GDP and somewhat higher in the non-North Sea sector of the economy, there on the assumption of productivity growth of $1\frac{1}{2}$ or a little more per cent a year, there can be a decline in unemployment. It is a question of arithmetic.

280. There can be but not necessarily will be?

(Mr Odling-Smee) It is possible that there will not be.

Chairman

281. That is averages. You have already said that the growth rate is higher at the beginning and lower at the end. The figure you just gave as a matter of arithmetic says no change in unemployment over the period towards the end of it since it is only 2 per cent, is it not?

(Mr Odling-Smee) Yes, I have not said anything about how productivity growth might vary over the period of North Sea oil production.

282. Do you expect it to go up or down?

(Mr Odling-Smee) North Sea oil production?

283. No, productivity? You said 1½ per cent average, or does it go up or down?

(Mr Odling-Smee) That was not projection at all, that was a number consistent with the decline in unemployment. We do not have year by year projections of productivity growth.

284. Do you have any at all?

(Mr Odling-Smee) We make assumptions. There are assumptions underlying these numbers here.

Mr Fisher

285. Can we assume those assumptions to decline from the 3 per cent next year to perhaps 1½ per cent at the end of the five-year period? Is that the sort of assumption made?

(Mr Evans) Sorry?

286. Your assumption averages out at 2.25. We assume they are declining from the present 3 per cent down at the end of that five-year period to 1½ per cent.

(Mr Evans) There is some confusion here between GDP and growth productivity. For growth the 1984 forecast is 3 per cent, which is assumed to be coming down to 2¼.

287. Not 2¼ as your average for the five years? Is that about 4, coming down to something considerably lower?

(Mr Odling-Smee) Not much lower. We have a very smooth path, not very much change. This is a smooth path, we take away any sharp cyclical movements.

288. You are so precise about this path presumably you have plotted it, yet you say it is a very smooth path. Could you give us the figures in a note?

(Mr Odling-Smee) May I suggest if you look at the table 1 attached to paper 1 of your advisers, you will find a path almost identical to ours.

289. Thank you very much indeed. You mentioned the question of North Sea oil. In paragraph 52 of the Green Paper you make two statements. One is that production will fall steadily after 1984-85. You then say, "It is assumed here that real oil prices flatten off, then start to rise again as the balance of supply and demand becomes progressively tightened." What level of North Sea oil production and revenue do you estimate in those years?

(Mr Odling-Smee) The figures, I think, are given in Annex 4 for the years in that paragraph.

290. Sorry, you have detailed them, have you?

(Mr Odling-Smee) Table 10 has the figures.

291. My apologies. What is the rate of the US dollar, given that it is very crucial if production is falling and you assume the prices flatten off, then start to rise? Presumably you made assumptions about the rate of the dollar. What assumptions did you make?

(Mr Odling-Smee) The assumption we make about the price of oil is an assumption about the real sterling price, so we do not need to make an assumption about the dollar exchange rate.

292. Really?

(Mr Odling-Smee) Yes.

293. You made no assumptions about the value of the dollar at all?

(Mr Odling-Smee) Not over the medium term period or the long term.

294. What evidence do you have that this growth rate you are talking about - the return of the growth rate of 2¼ per cent - is going to be sufficient for manufacturing industry actually to make up the gap that is almost inevitably going to come as a result of the relatife flattening off of the North Sea oil revenue?

(Mr Odling-Smee) We have not attempted to disaggregate this projection for the economy as a whole into sectors, apart from

oil versus non-oil. So we have not really considered that question in any detail.

295. The Chancellor, when looking at manufacturing investment, said he thought that the changes in corporation tax and capital allowances could actually lead to acceleration in investment. What evidence did you give him that would lead him to make his statement?

(Mr Odling-Smee) We looked at the advantages that companies could obtain from investing a year earlier, moving investment which they would otherwise have carried out in the financial year 1985-86 into 1984-85, for example, and moving investment they would otherwise have carried out in 1986-87 into 1985-86.

296. The acceleration is purely a response to the phasing mechanism?

(Mr Odling-Smee) Yes.

297. Therefore, the actual changes themselves will not lead to an acceleration. He implied, as I understood his Budget Statement, the actual changes were going to lead to acceleration. You now tell us it is only the phasing of those changes that will lead to acceleration, is that correct?

(Mr Odling-Smee) I think that is right if I understood your question correctly. If I were to re-phrase the question just to be clear, I understood this: Am I right in thinking that, if the system had been brought in overnight as Mr Townend was suggesting earlier on, you are asking whether we would expect to see any acceleration in investment?

298. Yes.

(Mr Odling-Smee) In that case, we would not expect to see any acceleration in investment.

299. Then I think the Chancellor was less than clear in his

Budget Statement. Could you give us some figures for the acceleration you see as a result of the phasing in or phasing out?

(Mr Odling-Smee) It is very difficult to estimate that. We can give you some figures of the incentive to accelerate, the reduction in the cost of investment if it is carried out a year earlier.

300. If you did have some figures to give to the Chancellor, if he is going to make a categorical statement like that - that there will be acceleration - he must have based it on the figures you gave him.

(Mr Odling-Smee) No, the statement can be based on the expectation, or more or less knowledge, that there will be incentive to accelerate and the assumption there that a number of firms would take advantage of it.

301. The Chancellor's statement was not made on any figures you gave him but was more a hope that this would happen?

(Mr Odling-Smee) We did provide some figures which are included in the forecast.

302. Sorry, you just said you did not provide any figures. Could you please give the figures?

(Mr Odling-Smee) These figures are very urreliable. There is a very wide margin of error round them.

303. I am sure, if they are reliable enough for the Chancellor, they are reliable enough for us. I would be very grateful to have those figures.

(Mr Evans) In the Autumn Statement Forecast of total investment for 1984 we show an increase of 4 per cent. In this forecast we are showing an increase for total investment of 5½ per cent. Part of that change is a provision to forecast for fixed investment in the total and reflect the move forward of

investment as a result of the tax changes in the Budget.

304. That is an interesting comparison. I think we would certainly be very grateful for the figures, however unreliable they are, which you gave to the Chancellor.

(Mr Battishill) If I could pick up the point, you were saying just now there was difficulty over precisely what the Chancellor said in his initial Budget Statement. I have just been re-reading it as you have been discussing this with Mr Odling-Smee. If I could quote what the Chancellor said in column 297 of Hansard of 13th March, "Over the next two years" - and I do stress those words because I think those are the key to the apparent misunderstanding you may have on this - "these changes will cause some investment to be brought forward to take advantage of high first year capital allowances." Then he went on a little later to say, "The more important and lasting effect will be to encourage the search for investment projects with a genuinely worthwhile return and to discourage uneconomic investment." I stress the first two years because that is the period during which the capital allowances are being phased out. I think it is the combination of still a high first year allowance during those two years and the prospect of profits from that investment being taxed eventually at a lower rate of tax which gives rise to the particular set of circumstances Mr Odling-Smee was describing. I do not think there was any question here that the Chancellor was talking in the longer term frame when he was talking about acceleration.

305. Purely a response to the phasing and nothing to do with the actual cut-off or the actual significant changes themselves?

(Mr Battishill) As Hansard itself in the Chancellor's Speech makes clear.

Mr Wainwright

306. You are expecting the first two years to be bumper years for distortions?

(Mr Odling-Smee) We are expecting them to be suitably transitional periods for companies to adjust to the new scheme.

Mr Fisher

307. On the question of revenue, would you agree that the changes in VAT on imports of about £1.2 billion is a one-off?

(Mr Battishill) It is one-off in the sense that it is an acceleration of revenue and it does not unwind.

308. In case I have read it wrongly, where in either the Green Paper or the Budget Statement is there any indication of how, in the second year, that revenue which can be there because of the VAT in the first year, is going to be made up?

(Mr Battishill) It is precisely because the revenue effect happens in the first year and not the second year. The Chancellor explained that in 1985/6 the Budget measures have the effect of reducing overall taxation by well over £1¾ billion. This is just one of the elements in that.

309. Table 2.5 in the Budget Statement shows no drop; indeed, it shows a slight increase in revenue. In view of that table and the fact that in 1985/6 the impact from VAT on imports is not going to be there, how has the Chancellor balanced his figures over that? What is the increased source of revenue in that second year?

(Mr Odling-Smee) Other things are going on at the same time of course and what table 2.5 shows is that there is a rising tax base and more revenue is being collected from all other taxes. If the measures announced in the Budget had not been announced and were not taking place, these figures would have been higher still, so the 1 point whatever it is billion has already been taken out of those figures.

Mr Budgen

310. I would like to take up Mr Fisher's point which he put to Mr Odling-Smee about the way in which manufacturing industry was likely to pick up after the recession. It seemed to me that Mr Odling-Smee was agreeing with that but surely the whole basis of the tax system towards which the Chancellor was slowly moving in his Budget is that he was saying he simply does not know what sector of the economy will pick up after the recession and, secondly, he is not making a value judgment as to which sector of the economy ought to be encouraged to pick up and that the market will decide. Is that right?

(Mr Odling-Smee) That is certainly right and the aim of removing distortions in the tax system is precisely that: to ensure that the market decides.

(Mr Battishill) He is making a judgment that a profitable investment - that is profitable and excluding a tax assessment - is more valuable than an unprofitable one.

Mr Budgen: That is what I mean by "the market".

Mr Wainwright

311. We need some clarification on the question of productivity assumptions for the future. In reply to me on the relative size of the PSBR, you pointed out, correctly of course, that productivity growth has been quite strong and may be sustained into the next year but, more reasonably, in reply to Mr Fisher, you were saying that unemployment may be assumed to decline somewhat even at this average growth rate of only 2¼ per cent. If unemployment declines at a growth rate of 2¼ per cent average, surely that implies very low productivity?

(Mr Odling-Smee) Low and high are relative words and there can be changes over this period.

Chairman

312. But the change has happened between the beginning of the evidence and now.

(Mr Odling-Smee) We admit that this is an area that is very difficult to predict and we would not wish to offer any predictions. They are not necessary for the kinds of arithmetic we have set out here. The arguments for thinking productivity growth could be faster are set out in Annex 3 of the Long Term Green Paper and they are really based on the experience of the last few years where productivity has improved faster than we expected. There is still, obviously, a lot more catching up that can be done before we reach the productivity levels of many of our competitors which might lead one to expect faster productivity growth. On the other hand, one can see a world in which there is a movement of labour, unemployed labour, into relatively low productivity activities as labour markets adjust more in the future and that will produce a lower productivity growth and a considerable decline in unemployment. It is very difficult to predict which of those two outcomes will occur.

313. You said just now in the answer you have just completed that because Britain has a long way still to go to catch up with the productivity levels of our competitors, that, you said, leads us to expect that we may have higher productivity growth. What is this alleged correlation between the fact that some of our competitors are much more productive than we are and the assumption that therefore, for some reason, we are going to catch up?

(Mr Odling-Smee) I was giving you reasons for believing that there may be continued, rapid productivity growth. I was not saying that this was necessarily going to occur. I was trying to point out the difficulty of predicting what would occur because of these

different factors operating in different directions.

314. It seems to me rather to undermine the answer you gave me originally on the reason why the PSBP did not have to become quite so contractionary when you said this was partly because productivity was still on the increase. Now you seem to be suggesting that there is no real base for expecting that. It may happen but nobody knows.

(Mr Odling-Smee) I have not made clear the time period over which I have been talking. In the earlier discussion about the PSBR, we were focusing very much on last year and this year. On the recent past and the next year or so, in my latest remarks I have been focusing on medium term because that was the time period Mr Fisher introduced.

315. As far as anybody can foresee this trend of productivity at all, you expect the increase in productivity to tail off after the end of 1984/5?

(Mr Odling-Smee) It is certainly a possibility that it will tail off over the five-year period. Whether it begins to occur as early as that, I do not know.

316. I think Mr Mitchell would like to say a word on the exchange rate but in relation to table 3.9 in the Red Book which is the main economic forecast table, we see that the percentage change in GDP from 1983 to 1984 (the growth rate) is 3 per cent but the first half of 1984 to the first half of 1985 declines to 2½ per cent. That is to say, it is apparently, if I may use the word, "planned" that the growth rate shall decline. Admittedly there are large margins of error around these figures but nonetheless we must assume that they are broadly speaking the same in the different periods to which I am referring. What is your understanding of why the Government plan for a reduction in the

growth rate since it seems at the moment unlikely while operating at full capacity.

(Mr Evans) These cannot be described in any sense as plans; these are forecasts and as usual, being Treasury forecasts, they are fairly cautious ones.

317. If that is the forecast, should not the Budget do something about it if it is not actually a plan?

(Mr Evans) One specific reason why the growth of output might tail off slightly - and this is only a small change some way out and very uncertain - is the possibility of some reduction in oil production compared to the increases in oil production that we have been getting until recently.

318. So what would the figures be excluding oil?

(Mr Evans) The gap difference, instead of between ½ per cent which is in any case small enough, would be less than that - perhaps ¼ per cent or so, which I think is so small as to be hardly noticeable.

319. Is it not still the case that we are therefore in a situation where it is forecast the growth rate will decline in the almost immediate future, by the first half of 1985, and would it not be sensible in those circumstances for the Budget to have taken up some of that difference?

(Mr Evans) That is from the assumption that it is possible and feasible and desirable in the Budget.

320. Yes; nonetheless, it is a case of the Budget and budget involved here shows that a decline in GDP about which nothing is being done will presumably have an adverse effect on unemployment?

(Mr Evans) I think it is inevitable at some stage, Mr Chairman, the Budget forecast show changes sometimes up and sometimes down in output. Indeed for the five-year period up to

1988-89 the assumptions on which MTFS are included suggest about 2¼ per cent growth in GDP. So this fits in with that kind of medium-term assumption of growth rate in GDP.

321. But it is still forecast that there will be a decline in GDP and it is planned that nothing should be done to alter that.

(Mr Evans) Well, I just say again this is a small forecast change to the greater growth, not a decline in GDP. It is a small change in the greater growth of the GDP which is bound to be affected by events both abroad and at home over which the Government has less than full control.

322. Are you suggesting there is nothing the Government could do at all to alter that figure?

(Mr Odling-Smee) The Government does set Budget policy very much in the medium-term context and so it is not surprising that occasionally an indicator that the Government is naturally very interested in goes in an apparently unfavourable direction.

Mr Mitchell

323. Just to sum up what you told Mr Fisher about the oil price assumption, as I read it that means you flog it all off when it is going cheap just to be ready to start importing it again when the price goes up. Is that a fair reading of the assumptions on the oil price?

(Mr Odling-Smee) The oil is not going to be all flogged off by any means over this period.

324. But the bulk of it?

(Mr Odling-Smee) No, if I remember rightly, the estimated production in the mid-1990s, the terminal period of the Green Paper, was about two-thirds of peak production.

325. Can I turn to chart 3.4 FSBI, because that demonstrates that traded goods have remained fairly constant, as have invisibles,

but manufacturing has declined catacysmically while oil as a share of trade balance increased enormously. In fact, it is not too much to say we would be up the creek without a paddle if it had not been for the oil in that situation. What is the assumption about manufacturing in a world in which we are buying once the oil contribution to the balance of payments begins to come down? What is the assumption about the manufacturing world in which we have been exporting capital on an enormous scale to fuel the investment of our competitors in which economies of scale have been built up by our competitors where they have been investing more vastly than we have for probably a decade? What is the assumption about manufacturing industry's ability to grow again to fill the gap that is going to emerge?

(Mr Odling-Smee) As I said earlier in reply to Mr Fisher, we have made no disaggregation of these broad assumptions that we make for the non-oil economy as a whole. However, one would expect, as oil makes less contribution to the balance of payments, the other sectors which produce trading goods and services will make more contribution which is the reverse of the process we have seen over the last five or eight years.

326. Given that other goods and invisibles have remained constant, the growth would have to be in manufacturing. Is manufacturing capable of that kind of expansion?

(Mr Evans) It is an over-simplification to say that manufacturing has to meet the difference. There are other sectors as well. One needs to look at invisibles in principle. Paragraph 3.25 refers to the increase in the stock of overseas assets.

327. In other words, our investment in the productive capacity of our competitors?

(Mr Evans) Our investment overseas, yes, and one would

expect that growing stock of assets abroad to yield an increasing flow of interest and dividend over the years to come. One would certainly expect that the invisibles, including services and IPD, would show some improvement. That is certainly built into the short-term forecast.

328. The assumption is the semi-retired economy, is it, in which we become launchers? Is there any alternative to manufacturing for employment and the ability to survive in the harder, colder world that is coming?

(Mr Odling-Smee) It would be surprising if manufacturing did not contribute more to the balance of payments.

329. On the kind of scale necessary?

(Mr Odling-Smee) Maybe manufacturing alone may not meet the whole of the scale but one would expect it to make a contribution.

(Mr Battishill) I think it is interesting that at the Committee's hearing a day or two ago when Sir James Cleminson was asked almost precisely the same question you put to my colleagues a moment or two ago, namely whether industry could make good the shortfall when North Sea oil begins to turn down, his answer was an emphatic yes it could with the right kind of encouragement. When one of your colleagues asked him, "What kind of encouragement?", he said, "Precisely the kind in the Budget that has just been made".

330. That comes with the same confidence with which he assured us that we would do so well in the Common Market.

(Mr Battishill) He was not asked about the Common Market; he eas asked about the performance of industry.

331. Would not one possible consequence be that no alternative sector would grow sufficiently and we shall be in a massive balance of payments problem with cataclysmic effects on the value of the pound?

(Mr Battishill) Several sectors could contribute, yes. Manufacturing could contribute; services could contribute.

332. Overall, you would expect them to fill the gap?

(Mr Battishill) That is the answer given by the CBI when the same question was asked of them.

333. Can I conclude on the exchange rate. We have seen over the last few years a surge in manufacturing imports to the extent that we are now a net importer of manufactured goods for the first time ever. We have seen soggy exports and we have seen a decline in manufacturing industry which almost entirely accounts for the increase in unemployment. In the old days when it was thought that you had to manage the exchange rate to be able to run the economy in conditions of full employment, labour and capital, it would be assumed that the exchange rate was over-valued on that criterion. Is it your view that the exchange rate is over-valued?

(Mr Odling-Smee) It depends what you mean by "over-valued". The textbook definition usually relates it to what is happening on the current account and whether there is what is often called a fundamental disequilibrium on the balance of payments. It is difficult to argue that we are now in a fundamental disequilibrium or have been over the last 10 years.

334. That is because of oil. If we are going to avoid having a serious effect on over-valuation of currency, would that not require us to expand the economy more rapidly and substantially than we have?

(Mr Odling-Smee) To avoid an over-valuation in some hypothetical situation when there is no oil would require there to be other goods and services making sufficient net contribution to the current account to avoid a deficit and it is very likely that that will happen.

335. The non-oil trade deficit: 1982, 2.5 billion; 1983, 8 billion; 1984, 10 billion - would those be reasonable estimates of the continuing deterioration of the pound if it remains, as is your assumption, at this level of valuation?

(Mr Evans) I think what matters more is the overall position. We are suggesting that current account as a whole will remain in surplus by about 2 billion, which is the latest estimate for 1983. I think there will be very little net change overall. There may be some deterioration as the text suggests in manufacturing, and some improvements in invisibles.

336. I am thinking primarily of the impact of manufacturing, which is so important for jobs. If you are assuming an unchanged exchange rate, if the trends we have seen in the last few years continue and we become a net importer the consequence will be that increased unemployment will go on.

(Mr Evans) I am not sure how much this is a question about short-term forecasts. To the extent that it is, we give in table 3.5 a projection of some rise in manufacturing output over the next 12 months or so. I have to say it is quite possible that that will be consistent with some fall in employment in manufacturing and that fall has been going on for the last 20 years or so. I think one has to say that we are expecting total employment to rise but that it is likely to take place outside rather than inside manufacturing.

Mr Wainwright

337. I expect I am not the only Member of the Committee to have become confused by the dialogue just now over growth over the next five years. Could we have a note on this assumption of 2¼ per cent average overall growth disaggregating it into oil and non-oil? That would be helpful.

(Mr Battishill) We will consider what we can do to help the Committee.

Mr Fisher

338. Can we clarify one point, Chairman? When you were talking to Mr Mitchell you referred to paragraph 3.25 where there is this great growth from 15 to 48 billion in revenue in foreign assets which you saw continuing and, therefore, contributing very significantly to preventing this balance of payments crisis. How do you square that remark, if that is the Treasury view, with your previous answers to me about a fall in unemployment and a rise in employment if the real growth sector of the economy is going to be in receipts from foreign assets as opposed to manufacturing increases here?

(Mr Odling-Smee) I do not think we said over the medium term there would be no growth in traded goods and services sector. On the contrary, one would expect quite a growth, especially as oil runs out and other traded goods and services have to take its place in producing an earning foreign exchange. So I do not think there is any inconsistency there. Furthermore, the non-traded goods sector has to be taken into account as well and one would expect quite a lot of growth in that.

Mr Browne

339. Would you agree that the non-political investment is made with an eye to return on investment which in turn depends not merely upon productive capacity or production but upon successful sales?

(Mr Battishill) I would agree with that.

340. Would you also agree that transfer on page 16 of the Red Book (there are four charts at the top - taking out oil for the moment) shows crafts, manufacturing and other goods and invisibles which, in fact, represent what one might expect to occur with a

technological revolution where manufacturing industry, particularly heavy manufacturing industry, plays less and less an earnings part in the economy whilst service industries increase, and it may be that the oil is a bonus which makes up for the 30 years of having held back the technological revolution?

(Mr Battishill) That is certainly an interpretation.

341. Finally, could I ask you whether in answer to Mr Mitchell on the prognostications about investment abroad in production capacity of our competitors, that is not the same as saying we invested abroad in the manufacturing capacity of our competitors?

(Mr Odling-Smee) Not necessarily. In fact, no doubt, we are taking advantage of the very high interest rates the United States Government is paying on Treasury bonds at the moment.

342. Other investments, for example, high growth areas such as service industries, computer software, etc?

(Mr Odling-Smee) Yes.

343. We are most grateful to you for the help you have given us. I wonder if I might turn to one particular point which arises on the more topical point. Obviously we are taking evidence from the Chancellor on Wednesday and we shall need to cover both public expenditure and taxation aspects of the matters as well as general economic management. Could you tell us what machinery exists for deciding priorities between an increase in the EEC's own resources? It has been suggested this might go up from 1 per cent or 1.4 or 1.6 per cent of VAT as against, let us say, housing benefit or the cost of National Health Service spectacles. How would that decision be taken? Is there any appraisal of priorities between the EEC expenditure on the one hand and our own very stringent control on the other?

(Mr Battishill) I would not want to comment on the particular examples you have mentioned but, as you will know better than I, matters of priority are a subject of constant discussion within government and ultimately of course matters of priority are matters settled by Ministers in Cabinet.

344. But would the EEC contribution be weighed against, for example, other items of public expenditure, say, on the Health Service?

(Mr Battishill) As I said, I would not want to comment on the particular examples you have mentioned.

345. But are such comparisons made?

(Mr Battishill) Comparisons are made all the time between competing matters of expenditure.

346. Within the Treasury?

(Mr Battishill) Within the Treasury, within Departments, within Government generally.

347. We may wish to return to this point later on. Thank you very much for your help. It has been very interesting and we will need to read very carefully some of the evidence which has been given to us. Thank you very much.

(Mr Battishill) Thank you for your courtesy.

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pmp

FROM: A M W BATTISHILL
DATE: 27 March 1984

MR PERETZ

cc Sir P Middleton
Sir T Burns
Mr Scholar
Mr Monger

TCSC: CHANCELLOR'S APPEARANCE

This is just to confirm that I have arranged with the Revenue and Customs to have (at least) one person sitting behind us when the Chancellor gives evidence to the TCSC tomorrow. Mr Walton (who attended the session yesterday) will be there from the Revenue; and probably Mr Wilmott (transport arrangements permitting) will come from the Customs.

A M W BATTISHILL

C

You may like to know. In extremis, they could pass notes to Mr Battishill.

DLP

For your Meeting at 10.45

FROM: D R NORGROVE
DATE: 27 MARCH 1984

NOTE FOR THE RECORD

cc Chancellor of the Exchequer
Sir Peter Middleton
Mr Bailey
Sir Terence Burns
Mr Cassell
Mr Monck
Mr Battishill
Mr Evans
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar
Mr Ridley

TCSC BUDGET ENQUIRY: HEARING ON MONDAY 26 MARCH

Messrs Battishill, Evans, Lankester, Monger, Odling-Smee and Scholar appeared before the Committee. The following is a summary of the main points.

Monetary targets

2. Two questions from Mr Higgins:

- the Quarterly Bulletin and the Green Paper on Monetary Control had both argued that cash was unlikely to be helpful as a monetary indicator; why the change of view? Mr Lankester replied in terms of the increasingly unsatisfactory nature of M1 as a measure of narrow money and the research which showed that MO was the best available alternative.

- If we expect greater use of equity and bond finance for companies as a result of the Budget measures, aren't the monetary ranges looser than envisaged at the time of the 1983 Budget? Mr Lankester replied by pointing to the uncertainty about the extent to which companies would switch their patterns of finance; too early to reach any such conclusion.

No!

Fiscal policy

3. Mr Wainwright:

- Questions in various ways asking whether the PSBR is looser than first envisaged, particularly taking account of asset sales and VAT on imports? Mr Battishill and Mr Odling-Smee pointed to the fact that the PSBR is to

be £¾ billion lower than envisaged in the 1983 MTFS and argued that the important question is whether it can be financed without excessive pressure on interest rates. Our best assessment suggests that it is consistent with avoiding excessive pressure on interest rates and witnesses noted the fall in the base rate last week. Mr Odling-Smee also mentioned in an aside the possibility of some underlying increase in productivity.

- What measures have been taken to prevent the PSBR overshooting again? Mr Scholar pointed to the larger Reserve, the change in the arrangements for demand-determined expenditure, and the fact that no allowance was made for shortfall.

- Aren't real interest rates very high? Mr Odling-Smee pointed out they were no higher than at other periods in the past, excluding the 1970s. But clearly the prospect for investment would be improved if real interest rates were lower.

3. Mr Mitchell:

- Can't the increase in productivity be accounted for by closure of firms and plant? Mr Evans argued that there was evidence of companies increasing output from existing plant eg BL and Steel.

- Isn't the fiscal stance very contractionary? Hasn't the US managed to achieve growth through an increased Budget deficit without higher interest rates citing the increase in the Budget deficit in 1983 with no increase in interest rates? Mr Odling-Smee pointed out that the increase in the Budget deficit might well already have been discounted into interest rates before it actually occurred. There was no simple correlation between borrowing and interest rates as the Government had always recognised. But any increase in the PSBR if it was expected to be sustained would lead to an increase in interest rates.

Poverty and unemployment traps

4. Mr Howell:

- How much money would be needed to do away with the poverty and unemployment traps? Mr Monger: a great deal.

- Wouldn't less overmanning in local government and the public sector generally provide money to reduce the poverty and unemployment traps? Mr Scholar: yes.

- Mr Howell also asked about overshooting of public expenditure. Mr Scholar noted that the planning total was likely to be overshot in 1983-84 by about £1 billion, but it had been held in earlier years. [Mr Howell appeared to be thinking in terms of control in real terms rather than cash terms.]

5. Mr Fisher:

- How is the choice made between raising thresholds and raising child benefit? Mr Monger said this was a political judgement, but pointed to the numbers of families benefiting from increased thresholds as opposed to increased child benefit.

- Mr Fisher asked for figures of the number of people taken out of the poverty trap by raising child benefit or raising thresholds at a given cost.

The Budget and the Banks

Mr Beaumont-Dark

- The Budget was unhelpful to banks, increasing their tax liabilities by perhaps £1 billion. They are being clobbered. Isn't this going to make them less adventurous and less willing to support manufacturing companies, particularly those in difficulties as they have done in past years? Mr Lankester pointed to the difficulties of estimating the effects of the changes and endorsed the views of the Governor on the effect on the banks' capital ratios. The CT changes were in any case being brought in on wider grounds. There would be a change in the banks' cost of funds, but this was likely to be small (probably less than ½ per cent) and spread over a period. Mr Battishill quoted from the Equipment Leasing Association. Mr Beaumont-Dark then argued that a shift of deposits out of the banking system would make the monetary targets easier to achieve at the expense of manufacturing industry.

6. Mr Budgen, in a Socratic dialogue, argued that capital allowances had not been created as a tax shelter for the banks. The tax shelter was in any case to remain in place for two years or so. So the banks could have nothing to complain about. And output would be growing so industry would be stronger.

The corporation tax changes and investment

7. Mr Townend:

- What would be the effect of the changes on the cost of capital? After some discussion, Mr Townend asked for a note setting out the figures.

Mr Fisher:

- was unclear about the meaning of the Budget speech on how far the acceleration of investment was simply a matter of the phasing in of the changes and how far it was a consequence of the change in the structure. Mr Battishill explained that it was the former and the phasing was necessary to give time for companies to adjust.
- Would there be any benefit to employment during the transition? The changes would begin immediately to affect the longer term plans of companies and would build up.
- Wasn't the cost of capital going up for marginal projects, and the cost of labour going up with the increased demand for it, leaving aside the effect of the abolition of NIS? Witnesses agreed, on the assumptions stated.

Asset sales

9. Mr Freeman:

- The Government reply to the TCSC report on the Autumn Statement said that asset sales needed to be taken into account. How could this be reconciled with the July 1983 BP sale? The question was not pursued.
- What was the difference between gilt sales and asset sales? They would have some of the same effects.
- Why not treat asset sales as revenue? Present treatment is consistent with statistical treatment of other sectors and also suitable for the control system for public expenditure.

Growth assumptions

10. Mr Fisher:

- What was the evidence for 2¼ per cent GDP forecast shown in the Green Paper? Mr Odling-Smee said that this was an assumption based on historical experience.
- 3 per cent growth was forecast for this year so does not this mean a decline later? The figures are for the medium term, taking account of falling North Sea oil production.
- What was the implication of the assumptions for unemployment? No precise estimates have been made. But with, say, 1½ per cent growth in

productivity and growth in the labour force at under ½ per cent, there would be falling unemployment. The figures were certainly consistent with lower unemployment but that was not to say that it would be achieved. That would depend upon a number of factors. Mr Odling-Smee confirmed that the annual output path for the MTFS period shown in the table attached to Christopher Johnson's paper were broadly correct.

- Mr Fisher asked for the figures included in the Industry Act Forecast for acceleration of investment following the company tax changes.

- How will the hole 1985-86 left by the once-for-all effect of VAT on imports be financed? There was a rising tax base and figures in the MTFS took account of the once-for-all effect of VAT on imports.

11. Mr Higgins:

- The Industry Act Forecast showed a declining rate of growth of GDP between 1984 and the first half of 1985. Why was the Government taking no action to offset this planned fall in the rate of growth? Mr Evans noted that North Sea oil output was expected to decline a little. Action might not be feasible or desirable and anyway policy was set in a medium term context.

When the oil runs out

12. Mr Mitchell:

- What happens when the oil runs out? Will manufacturing be able to take up the slack? Mr Evans and others pointed to the probable reversal of part of the recent past pattern as oil output began to decline. Mr Battishill drew attention to the CBI evidence in which Sir James Cleminson had said that industry would respond if given the right climate and that the Budget had helped towards that. There was also the likely growth of IPD from abroad and better performance from the traded sector aside from manufacturing.

Other points

13. Mr Wainwright:

- Asked for a note on the 2¼ per cent growth assumption, disaggregated between oil and non-oil output.

. Mr Higgins:

- Mentioned public expenditure as one of the areas the Committee want to discuss at the hearing on Wednesday.
- Asked how the Government appraised priorities between the EC budget and other areas of public spending. Mr Battishill replied that priorities were under constant discussion. Mr Higgins said they might want to return to this.

D R NORGROVE

FROM: D R NORGROVE
DATE: 27 MARCH 1984

CHANCELLOR OF THE EXCHEQUER

cc Sir Peter Middleton
Sir Terence Burns
Mr Cassell
Mr Battishill
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar

YOUR APPEARANCE BEFORE THE TCSC TOMORROW

The Clerks have given me some of the questions they intend to propose to the Committee. They seem generally quite straightforward and many of them are the same as the questions the Clerks proposed should be asked of officials. Suggested answers to these were included in the material attached to Mr Battishill's minute to you of 23 March. The questions are as follows.

Green Budget

2. Is the Chancellor willing to make further moves towards a Green Budget?

Monetary targets

3. The December 1982 Quarterly Bulletin and the Green Paper on Monetary Control both said that cash was not a useful monetary indicator. Why the change of view? (See Mr Battishill's minute.)

4. The MTFS is supposed to condition expectations. How can it when the monetary targets keep changing?

5. The Mansion House linked broad money to funding and narrow money to interest rates. Does that still stand?

6. The Budget measures are designed among other things to encourage equity and bond financing. Are the monetary targets therefore looser than envisaged in 1983? (See Mr Battishill's minute.)

7. We have had full employment at existing rates of inflation in the past, so why is the Government seeking a further reduction in inflation?

Fiscal policy

8. Isn't the fiscal stance de facto more expansionary than at first sight it seems, once asset sales and VAT on imports are taken into account?

9. The Chancellor's 1981 Zurich speech seemed keen on cyclical adjustment of the PSBR. Isn't the present stance pro cyclical? (See Mr Battishill's minute.)

10. What is so magical about a £7 billion PSBR for the next 5 years and on what basis have the PSBR percentages been chosen?

11. The MTFS assumes 2¼ per cent growth of output for the next 5 years. The forecast is for 3 per cent next year, so allowing 2 per cent a year for the following 4 years. Are there capacity constraints which would prevent faster growth than that?

Exchange rate policy

12. Mr McMahon said that if the exchange rate were abnormally high then the Governemnt would be prepared to allow some overrun of the monetary targets. Doesn't this suggest the Government has some notional target for the exchange rate in mind?

13. Was the exchange rate overvalued in 1980?

14. If we have no exchange rate target, then why is the Government worried about US interest rates? Why not keep interest rates coming down regardless of the effect on the exchange rate?

Budget measures

15. What are the Chancellor's intentions for child benefit?

16. If capital allowances are so distorting why were they not abolished from Budget day?

17. Will there be a shortfall in investment two years from now?

18. What are the Chancellor's intentions on mortgage interest relief and the tax treatment of pensions?

19. The Governor agreed that the tax changes would have a serious effect on bank profits. Isn't the Chancellor worried about their ability to lend to industrial enterprises?

20. Don't the Budget measures show a sharp change in the Government's philosophy about the structure of the economy? (This presumably refers to the way in which the Budget changes the balance between capital and labour: see Mr Battishill's minute.)

21. The Budget favours services. But isn't there a need to maintain manufacturing against the time when oil revenues begin to fade away?

22. Aren't capital investment and productivity related? Thus isn't there a limit to which investment can be discouraged if real incomes are to rise? (Sic)

23. The CBI and TUC favoured increased investment in infrastructure. What are the Chancellor's views?

Miscellaneous

24. Isn't the PSBR adjusted for asset sales a better measure of fiscal stance than the unadjusted PSBR? (See the reply to the TCSC report on the Autumn Statement.)

25. How is the BP share sale consistent with taking asset sales into account in setting the PSBR?

26. Why is the Government so reluctant to give a split of the Reserve between the amount for discretionary items and the amount for demand-determined items?

27. On negative EFLs, how would the Government react to a proposal that total capital investment of the nationalised industries should be included in the planning total?

D R Norgrove

D R NORGROVE

FROM: D R NORGROVE
DATE: 27 MARCH 1984

1. MR BATTISHILL

2. CHANCELLOR OF THE EXCHEQUER

cc Sir Peter Middleton
Sir Terence Burns
Mr Cassell
Mr Evans
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar

YOUR APPEARANCE BEFORE THE TCSC TOMORROW

The briefing notes which were commissioned at your meeting this morning are now attached. Also included are the notes commissioned in Mr Peretz's minute of 26 March.

D R NORGROVE

BRIEFS

A	Members' particular interests
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*Include material for the Treasury papers promised yesterday to the Committee

A

A.

Members' particular interests

Higgins	-	asset sales; over-funding;
Wainwright	-	infrastructure;
Mitchell	-	exchange rate policy; competitiveness and demise of manufacturing; unemployment;
Fisher	-	
Sedgemore	-	Friedman annihilation;
Beaumont-Dark	-	
Townend	-	public expenditure and especially capital;
Budgen	-	ditto;
Freeman	-	pensions industry;
Howell	-	poverty and unemployment traps; NHS; public sector manpower generally
Browne	-	

B

Growth of GDP and North Sea Production

The following table shows the assumed growth rates of GDP including and excluding North Sea oil and gas production over the period of the MTFS.

	Percentage growth over year to:					Average growth from 1983-84 to 1988-89 (%)
	1984-85	1985-86	1986-87	1987-88	1988-89	
GDP	3	$2\frac{1}{2}$	2	2	2	$2\frac{1}{4}$
GDP excluding North Sea production	3	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$

The assumptions about North Sea production are set out in the press notice on "Government Revenues from the North Sea" released by the Treasury on 13th March 1984.

C

Relative UK/US interest rates and public sector deficits

	US long rates	UK long rates	US deficit (% of GNP)*	UK deficit (% of GNP)**
1978	8.5	12.5	1.4	5.4
1979	9.3	13.0	0.7	4.8
1980	11.4	13.8	2.3	5.6
1981	13.7	14.7	2.1	3.4
1982	12.9	12.9	4.8	3.3
1983	11.3	10.8	6.1	3.3

* US Federal Budget Deficit

** PSBR (Financial Years)

As the UK public sector deficit has contracted and the US deficit widened, UK long term interest rates have fallen steadily relative to US rates; so that from being almost 50% higher than US rates in 1978, UK rates were marginally lower than US rates in 1983. They have fallen further relative to US rates in recent weeks.

RESTRICTED

D

BACKGROUND BRIEFING - Hendry's critique of Friedman

Interest is likely to be shown in Professor Hendry's critique (published by the Bank in December 1983), of Friedman and Schwartz's "Monetary Trends in US and UK 1867-1975", which some members of the opposition have seen as a demolition job on monetarism.

LINE TO TAKE

Not for Government to intervene in dispute between academics about technical issues of econometrics. Always technical disputes between econometricians. Given state of the art, absurd to claim Government policies stand or fall by any particular piece of econometric research. Agree with Sam Brittan (FT 15.12.83):-

> "My remaining hair stands on end at the thought of policy being determined by rapidly shifting findings of econometricians. "

Bank made it clear that their publication of Hendry paper in no way meant Bank concurred with his views. Government policies rest on no one specific piece of work - what is clear is that our sound financial and monetary policies are enabling us to achieve non-inflationary growth.

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OVER FUNDING AND MONEY MARKET ASSISTANCE

Factual/Points to make

(i) 1983-84 target period to date (12 months to mid-February 1984) under funding of £½bn.

/ But April 83 - Feb.1984, over funding of £1¾ bn. /

(ii) 1979/80 to 1982/83 under funding of £1.4 bn., compared with PSBR of £41bn.

- underfunding in 1979/80, 1980/81 and 1982/83
- overfunding in 1981/82. / MAYBE in 1983/84, but not yet finished. /

(ii) No simple relationship between overfunding and money market assistance (see background note). Other money market influences (eg. debt sales to banks, overseas, increase in note issue) have made the major contribution to money market shortages in recent years. Position has been eased since 1982 by switch of LA borrowing from banks to PWLB (which has no effect on PSBR, overfunding or £M3).

(iii) Objective, for the medium term, is to broadly fund the PSBR. But, as stated in Mansion House Speech "there may be occasions when funding ought to be higher or lower than PSBR to take account of private sector's demand for credit and to provide a measure of control if wider aggregates are growing excessively".

(iv) Relationship between private sector bank lending and £M3 depends on other counterparts, as well as overfunding.

- net non-deposit liabilities (faster growth depresses £M3, other things being equal)
- external influences

	£ billions 12 months to mid Feb. 1984
PSBR less debt sales to non-banks	+ 0.5
Sterling lending to private sector	+12.9
Externals	
Net non-deposit liabilities	- 4.3
change in £M3	+ 9.1

(v) Need to take action to restrain private sector borrowing depends on assessment of overall monetary situation. If appropriate, bank lending may be influenced by fiscal policy as well as changes in interest rates. Budget included measures to encourage companies to raise more finance outside banking system.

(vi) Selling public sector debt to non-banks reduces private sector liquidity; and reasonable to expect to pay something to achieve this. Always recognised that cost, while important, cannot be the overriding consideration (see Radcliffe Report). In short run, cheapest way to finance PSBR is to issue notes and coin (ie. non interest bearing liabilities); but this absurd policy would mean higher inflation and, in time, higher interest costs.

(vii) NLF surpluses are an accounting curiosity, with no monetary significance. They reflect the separation in the Bank of England between the Issue and Banking Departments. Whether the NLF runs down ways and means advances from the Issue Department, or deposits balances with the Banking Department, depends on size of Issue Department's balance sheet, and scale of its other assets (including unsold gilts) as well as scale of money market assistance. No real effect on monetary conditions.

Defensive

(i) Why is it right to overfund in short run, but not in the medium term?

Funding is very flexible short term instrument, and silly to neglect it. But MTFS designed to ensure that in medium term, PSBR will be consistent with monetary targets. So there should be no need to systematically over or under fund.

If pressed: Most instruments for restraining private sector borrowing take time to work. Funding can be useful interim response.

(ii) Overfunding puts pressure on long rates, relative to short rates. Surely this forces companies to borrow from banks, adding to the problem which overfunding was intended to offset?

If we aren't systematically overfunding this doesn't arise.
If pressed: No evidence for this. But it is a risk. Hence measures to encourage companies to make more use of long term markets, and low official reliance on longer end of market in funding over past 3 years.

(iii) Surely overfunding followed by action to relieve money market shortages means you are taking money out at the long-end and putting it back at short-end with no monetary benefit?

Relieving money market shortages by purchasing short-term assets from the banks does not affect the overall size of their balance sheet. The banks simply receive cash in return for eligible bills and the monetary benefit stemming from the take-up of gilts by the non-bank private sector remains. Lending to the private sector which would have taken place anyway (for a given level of interest rates) is being transferred from the commercial banks to the Bank of England.

(iv) Rising stock of money market assistance ("bill mountain") impedes proper operation of the money markets and should count as expenditure?

IMF statistical conventions suggest such liquidity operations should be "below the line" in the public sector accounts. They arise from monetary policy, whereas the PSBR is meant to measure fiscal policy. Net lending within the PSBR is related to specific Government objectives. Lending by the Issue Department is a normal central bank operation to provide liquidity to the private sector as a whole.

(v) Does overfunding affect MO?

No. Overfunding is a measure of the public sector's contribution to broad money.

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OVERFUNDING: DEFINITIONS (Background Note)

No single definition of "overfunding" appropriate in all circumstances.

(i) The conventional definition is sales of public sector debt to the UK non-bank private sector in excess of the PSBR.

Table below shows "overfunding" on this definition for financial years since 1979-80

	1979-80/ 1982-83	1979-80	1980-81	1981-82	1982-83
PSBR	41.1	9.9	13.2	8.8	9.2
Non-bank private sector purchases of public sector debt (-)	-39.7	- 9.2	-10.9	-11.3	- 8.3
OVER(-)/UNDERFUNDING(+)	+ 1.4	+ 0.7	+ 2.3	- 2.5	+ 0.9

- in 3 of the last four years there has been net underfunding; PSBR was underfunded by £1.4 bn over period as a whole.
- in the 12 months to mid-February 1984, PSBR was underfunded by £½ billion. £M3 was well within the range.

NOT FOR USE

The last 12 months are heavily influenced by massive underfunding at the end of 1982-83, ie. the beginning of the 1983-84 target period. The financial year 1983-84 is likely to show substantial overfunding (£1¼ bn, according to the post Budget forecast). But over the full 14 months of the 1983-84 target period, we may still be underfunded by say £½ bn.

(ii) An alternative definition of overfunding also includes the external finance of the public sector (ie. change in the f.c. reserves net of f.c. borrowing plus overseas take-up of public sector debt). This is a better measure of the public sector's net contribution to the growth in £M3; it shows the extent to which the PSBR has been financed in non-monetary ways, ie. other than by printing notes and coin, and borrowing from the monetary sector.

You hinted at this definition in your Mansion House Speech:-

> "The broad aim of funding policy will continue to be to fund the PSBR, by raising finance outside the banking system from the UK private sector, and from external flows, to which too little attention is often paid."

So far the TCSC have shown no interest in this definition. Including external flows <u>increases</u> the amount of overfunding in recent years, eg. on this definition the PSBR has been <u>over</u>funded by £½bn. since February 1983.

(iii) If overfunding is measured by reference to the public sector's net contribution to <u>PSL2</u>, rather than £M3, sales of debt to non-banks would need to exclude building societies' take-up of gilts. This helps to <u>reduce</u> measured overfunding. We have never referred to this measure in public.

<u>Overfunding and money market assistance</u>

(i) Other things being equal, higher funding increases the volume of assistance needed to relieve money market shortages. But overfunding of PSBR only one amongst number of influences on money markets.

(ii) Overfunding is a measure of net public sector contribution to £M3. The change in money market assistance is more directly related to MO: it is the difference between the <u>ex ante</u> supply of cash to the market, resulting from central Government transactions, and the demand for cash (ie. MO). The CG's net position is given by:

> CGBR <u>plus</u> change in fc reserves net of fc borrowing
>
> <u>less</u> debt sales to <u>all</u> sectors

(iii) <u>Negative</u> money market influences <u>not</u> included in the conventional definition of overfunding are:-

- external finance of public sector
- debt sales to monetary sector
- notes and coin

These influences have been largely responsible for the scale of money market shortages in recent years.

(iv) Since 1982, money market position has been eased by switch of LA and PC borrowing from banks to CG (eg. PWLB facilities). This - raises the CGBR
- reduces money market shortages
- leaves PSBR, £M3 and overfunding unchanged.

Overfunding and Money Market Assistance

	1979-80/ 1982-83	12 months to mid-Feb. 84
Overfunding s.a. (conventional definition)	+ 1.4	+ 0.5
Other money market influences	- 9.3	- 1.2
of which:		
Other public sector contribution to net funding	-	+ 2.5
Notes and coin	- 3.0	- 0.7
Change in reserves etc	- 0.8	- 0.1
Sales of gilt to overseas and monetary sectors	- 6.8	- 1.4
Other	+ 1.3	- 1.5*
Total money market influences (- higher money market assistance)	- 7.9	- 0.7

Note* largely seasonal adjustment; money market assistance reflects unadjusted transactions; overfunding based on seasonally adjusted PSBR.

CURRENT PUBLIC POSITION

A number of public statements on overfunding by Treasury Ministers and officials are attached at Annex A. The last major statement you made was in the Mansion House Speech:-

> "As in the past there may be occasions when funding ought to be either higher or lower than the PSBR, in order to take account of the private sector's demand for credit, and to provide a measure of control if the wider aggregates are growing excessively rapidly. But over the medium term there should be no systematic tendency either to overfund or to underfund the borrowing requirement. "

Though your Budget Speech made no such explicit reference, it did say:-

> "As in the past, monetary conditions will be kept under control by an appropriate combination of funding and operations in the money market. "

ANNEX A E 8

PUBLIC STATEMENTS ON FUNDING POLICY

	Source	Comment
(i)	1980 Green Paper on Monetary Control	Gilt-edged funding described as a basic weapon for medium term monetary control.
(ii)	Treasury memoranda to TCSC for 1980-81 Report on Monetary Policy	Incidental references, but very little emphasis on role of funding.
(iii)	1982 Budget Statement	Section devoted to monetary control and debt sales, but concentrating on funding mix rather than overall level.
(iv)	Bank memorandum to TCSC for report on 1982 Budget, on bank-lending, 'overfunding' and money market assistance	Submitted in response to query about rising stock of commercial bills. Statement of policy of 'overfunding' to contain growth in £M3.
(v)	Chancellor's written answer on arrangements governing borrowing by corporate and public sectors (June 1982)	"Funding.... an important instrument.... Sales of CG debt.... to the NBPS have been used to contain the growth of £M3...." "The appropriate level of funding has.... to be decided in the light of all the monetary indicators. That level may sometimes be higher and sometimes lower than the PSBR... "
(vi)	Debate on amendments to 1982 Finance Bill (12 July 1982)	[Economic Secretary] "Sometimes - depending on such factors as the buoyancy of bank lending - we need to make debt sales to the NBPS greater than the PSBR...."
(vii)	Evidence to TCSC for report on 1982 Autumn Statement	[Chancellor] "It is not the policy intention to overfund." "It is our intention to try and do such borrowing as is necessary to cover the Government's borrowing requirement." [Mr Middleton] ".. the broad objective is to broadly fund the borrowing requirement, subject of course to the need of monetary policy.."

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	Source	Comment
(viii)	Evidence to TCSC for report on 1982 Autumn Statement	Memo by Bank on overfunding.
(ix)	TCSC 1982-83 Report on Autumn Statement	"The Committee believe that the question of overfunding is an important one requiring more detailed examination."
(x)	Evidence to Select Committee on Procedure (Finance)	Evidence from Mr Turnbull et al on amendment to National Loans Act: funding to control £M3.
(xi)	First report from the Select Committee on Procedure (Finance)	Expresses concern at the degree of freedom available to the Treasury to overfund.
(xii)	Mansion House Speech (20 October 1983)	"As in the past there may be occasions when funding ought to be either higher or lower than the PSBR, in order to take account of the private sector's demand for credit, and to provide a measure of control if the wider aggregates are growing excessively rapidly. But over the medium term there should be no systematic tendency either to overfund or to underfund the borrowing requirement."

Public Sector Balance Sheets

F

Government should pay more attention to balance sheets.

Agree that balance sheets are useful in assessing the viability of fiscal policy over a period of years. Recession inevitably has harmful effect on public sector balance sheet. UK much more successful than other major OECD countries at holding down the real level of public sector debt during the world recession.

Changes in public sector balance sheets (published by the IFS) show fiscal policy is expansionary. IFS calculations are highly conjectural. Short run changes in these data can be highly volatile (because of fluctuations in asset prices) - not a good guide to fiscal conditions. Flow variables such as the PSBR more relevant to assessment of fiscal conditions.

F.

Fall in public sector net worth is worrying? IFS public sector net worth figures are a very incomplete measure and certainly exaggerate the present situation. They show accrued pension rights rising by £15-20 bn per year but take no account of future pension contributions. The forecast decline in the PSBR will anyway reduce the fall in public sector net worth.

Government should publish figures for public sector balance sheets
Figures for public sector financial assets and liabilities up to end 1981 were published in the February 1984 issue of Financial Statistics. Figures for public sector tangible assets up to 1975 were published in Economic Trends in November 1980; these figures are currently being updated for eventual publication.

G

BACKGROUND BRIEFING - "Private Sector Borrowing Requirement"

A letter in the FT on Monday 26 March from the Senior Economist at Grieveson Grant and Co., stockbrokers, claimed that the Private Sector Borrowing Requirement was the key determinant of monetary growth, and that the Authorities were wrong to imagine that control of the Public Sector Borrowing Requirement was sufficient to ensure monetary control.

G.

LINE TO TAKE

Criticisms of this nature fail to understand the details of the MTFS. Of course control of the Public SBR is necessary and that is the area of borrowing over which we have direct control. But it is by no means sufficient for controlling monetary growth. Fortunately, we have instruments with which we can control excessive sterling lending to the non-bank private sector. The most familiar instruments are:-

(a) short-term interest rates: these may have to rise as well as fall in the short-term if monetary control is to be maintained, leading to longer term reductions in inflation and interest rates;

(b) funding: this can be used to offset temporarily excessive sterling lending (see separate brief on overfunding).

POVERTY TRAP AND CHILD BENEFIT

H1

Child Benefit v tax allowances

Increases in tax allowances help 20m people, increases in Child Benefit only 6m.

2. Alleviation of poverty and unemployment traps an important object of policy, but not the only one. Also important simply to reduce tax on low incomes. It is wrong that tax should start on incomes of only 33.3% of average earnings (married threshold) or 21.1% (single threshold).

H

3. A simple increase in CB does not improve the poverty trap since it leaves the marginal rate of tax/benefit withdrawal unchanged. It does not improve the unemployment trap if the increase in child support applies equally to those at work and those unemployed. It helps the traps only by replacing means-tested benefits. Thus:

a. The poverty trap by taking people out of FIS, which does reduce the marginal rate.

b. The unemployment trap by making an increase in the child addition to Supp Ben (which determines what the unemployed SB get) which is less than the increase in CB.

In both cases therefore, the poorest in work and the unemployed do not get the full benefit of the CB increase.

4. An increase in CB would also do nothing to improve the unemployment trap for single people or married people without children. Incentives for these groups are also important. Only 15% of the unemployed have children.

5. Many of those pressing for an increase in CB really want to relieve poverty. This is different from alleviating the poverty trap, or the unemployment trap.

Why has the Budget had such a small effect on numbers in the poverty trap?

[The poverty trap is assumed here to contain those who both pay tax at 30% and receive FIS, which has a withdrawal rate of 50%. These are people with children, since only they are eligible to receive FIS. Most of those taken out of tax by the Budget are juveniles and working wives.]

Even after the Budget, the tax threshold is as low as £61/week for a married man (and £38.50/week for a single person). These figures are well below even the level of earnings of most of those in the poverty trap. That is why the effect this year is comparatively small. But this year's increase is part of the process of getting the tax threshold up to a sensible level, a level from which further increases will have a big impact on the poverty trap. This is bound to take time. It means reversing processes which, as the Green Paper shows, have continued over many years.

EFFECTS OF THE BUDGET ON THE BANKS

Mr Beaumont-Dark may argue, as he did yesterday and last week when the Governor gave evidence, that the banks are being unduly hit by the Budget on two counts: composite rate and the CT package. As a result, the cost of borrowing to industry would increase, and the banks' capacity to lend would diminish. He also referred to the report in Saturday's Financial Times that Standard and Poor's have put Barclays, Midland and NatWest on to "credit watch" in the light of the Budget. (This was reported in the press over the weekend.

Composite Rate

The banks have claimed that they are liable to lose all non taxpayers' deposits, which they estimate at £3½ billion. The cost of replacing this sum with wholesale money, they argue, would be equivalent to a ¼ per cent increase in lending rates across the board.

There are several answers to this:

(i) bank deposit rates are already very uncompetitive with the building societies - ie 5¼ per cent for 7 day deposits compared with the building society net rate of 7¼ per cent for 7 day money. The banks are already losing deposits to the building societies (£1 billion in second half of 1983), but customer inertia and convenience - even with a slightly bigger difference in rates for non taxpayers - should enable the banks to hold on to a sizeable proportion of non taxpayers' deposits. And they certainly won't be lost all at once.

(ii) the banks are assuming that the building societies will not reduce their rates, or bid less strongly in the wholesale markets, if they gain deposits from the banks. They also assume

that National Savings rates would not be adjusted if there was a major flow in that direction. Both assumptions are unrealistic.

(iii) the banks will be able to offer a more competitive rate to taxpayers, who will now in effect pay the lower composite rate on interest received.

In short, without any change in the pattern of interest rates, the loss of deposits directly attributable to composite rate is likely to be very much less than £3¾ billion. If the banks bid back their lost deposits or raise money on the wholesale market, the cost will be reduced to the extent that other rates- ie National Savings, building societies and money market - are lower.

Before the Budget, we estimated that the increased cost of funds to the banks attributable to composite rate might be around £25 million. If spread across all forms of lending, the effect on lending rates would be of the order of one-thirtysecond to one-sixteenth per cent. It was on this basis that yesterday I told the Committee that the effect would be very small in relation to the recent ½ per cent cut in base rates. You might either stick to that line; or if the ¼ per cent estimate of the banks is quoted (which it was not yesterday), say that we estimate the effect will be considerably less than that.

CT package

Attached is a note from the Revenue explaining what scope will remain for sheltering tax by leasing, what extra provision may need to be made in the accounts for deferred tax and how this provision would affect profitability.

Line to take:

(i) The general effect on banks' profitability and future tax payments is extremely uncertain. Depends on:

- how much tax they have provided already (clearers have provided only 25%, some merchant banks 100%)

- on the pattern of existing business (whether for short or long lease)

- how much they respond to the package (ie by increasing their leasing in the short run and by going for longer leases)

- how much extra provision the banks feel they now have to make.

(ii) Because of these uncertainties, cannot comment on brokers' estimates of extra tax charge.

(iii) Bank of England have considered "worst case" scenario, where effect might be quite serious. But even in this worst case, as the Governor told the Committee last week, the effect on banks' capital ratios would not be such as to cause anxiety. [If pressed on the "worst case": it assumes that all the unprovided for deferred tax is provided for immediately, which is extremely unlikely.]

(iv) To the extent that banks may be constrained in their lending through reduced capital ratios, the Budget will reduce industry's need for bank finance - eg corporate finance package, effect of lower CT rate making equity finance more attractive.

(v) Banks have always said most of the benefits of leasing are passed on. So their post-tax profitability should not be much affected.

(vi) No reason why the banks who don't pay tax like everyone else.

(vii) Equipment Leasing Association, in post-budget statement, confident of "continued viability of leasing as a competitively priced form of fixed rate finance, particularly for medium to long term contracts .... leasing flourished in other countries without a generous system of accelerated depreciation".

NOTE BY THE REVENUE

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The effect of the capital allowance changes on the banks will depend on how far in future they are able to write leasing business which, even when the allowances are 25% per year, provides a "surplus" available to set off against other increase. This "surplus" will arise where an acceleration element still remains in the allowance - ie where the rate of 25% is more generous than strict depreciation. The more that the banks (through their leasing subsidiaries) can generate leasing business involving longer leases - 8 years or more - the greater will be the available spill-over against other income. It is impossible at this stage to say how successful the banks will be - but they are certainly aware that this is the direction in which their business will need to go.

Insofar as this future"surplus" falls short of the current levels of surplus, the effect will be to expose to tax at the new corporation tax rates (i) rental income on assets leased previously, for which the capital allowances have already been used up; and (ii) the banks' other (non-leasing) profits.

It is effect (i) above which explains the banks' need to increase their deferred tax provision. In the past they have provided for only about 25% of their deferred tax on their leasing, on the assumption that they would be able to set-off sufficient future allowances on new business, against the incoming rentals. At a 52% CT rate, the Clearers' under-provisioning amounted to just over £2 billion. The amount that they will now have to provide for in their accounts will no doubt depend on their projections of the amount of long-term leasing which they will be able to do, and on the CT rates which will apply to the incoming rentals. This must be a matter for the banks' own judgement.

To the extent that the banks are not able to find sufficient profitable leasing business in future, they will turn to other types of business - eg mortgage lending. This alternative business will be more profitable pre-tax than leasing - because leasing is done at interest rates which reflect the tax relief which the banks obtain through using the allowances to shelter other income. But

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post-tax, the results should be similar. So, if this total business remains broadly the same, we would expect an increase in their pre-tax profits and their tax; but post-tax profits at about the same level as now.

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TREASURY AND CIVIL SERVICE SELECT COMMITTEE

LIFE ASSURANCE PREMIUM RELIEF

A 'Financial Times' editorial of 27 March suggests that LAPR "should have been phased out in a more considered way.... quarter by quarter or year by year".

It is surely self-evident that an approach to the change involving prior notification would not have been practicable or acceptable. To announce in advance that the relief would be withdrawn from some future date months ahead would clearly provoke a massive rush to take out new policies in the intervening period, greatly increasing the cost of the relief to the Exchequer and, indeed, putting at risk the very benefits that the change is designed to achieve. The fact is that LAPR is being withdrawn in a considered way. The relief is no longer available for new policies after 13 March. It remains for existing policies provided that these are not changed to enhance their benefits. Hence in effect the relief will be progressively phased out, as existing policies come to the end of their natural term.

FROM: A J G ISAAC

THE BOARD ROOM
INLAND REVENUE
SOMERSET HOUSE

J2

27 March 1984

CHANCELLOR OF THE EXCHEQUER

LIFE ASSURANCE: TODAY'S FINANCIAL TIMES LEADER

1. Mr Lankester tells me that you would find it helpful, before you see the Treasury Committee tomorrow, to have a quick summary of the reasons why it was not possible to consult, before withdrawing LAPR for new policies in the Budget.

Could you have announced a decision to withdraw LAPR from a future date?

2. You saw what happened between 1 and 13 March, even in response to unconfirmed speculation. I leave you to imagine the scale of the disruption, and the scramble to get business signed up before the axe fell, if there had been an official Government announcement to terminate relief from a future date. A number of Life Offices themselves, though unhappy about the decision to withdraw LAPR, have made it clear that they understand the reason why it would not have been sensible to give advance notice in this way.

Could the relief have been phased out over a period of years, rather than terminated for new policies from Budget Day?

3. The fact that existing policies are protected means that LAPR will continue through into the second quarter of the next century. This is already a pretty generous transition. It would

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c Chief Secretary
Financial Secretary
Minister of State
Economic Secretary
Sir P Middleton
Mr Battishill
Mr Monger
Mr Lord
Sir Lawrence Airey
Mr Green
Mr Isaac
Mr O'Leary
Mr Pollard
Mr Munro
Mr Newstead
Mr J P O Lewis
PS/IR

have been going altogether too far, to give in addition relief for new policies on this basis. Again there would have been a scramble to sign new policies each year, before the rate of relief was due to fall or eventually end. And in the last resort, if you accept that LAPR is not justified on its merits, what justification is there for extending it to new contracts, even at a reduced rate?

Could there have been informal consultation before the Budget with the representative bodies, without a public announcement?

4. This would have been neither usual nor desirable on a matter as market sensitive as this. And it would have posed an intolerable conflict of interests for the officers of the representative bodies - who are themselves directors or senior managers of commercial life companies. If their companies had joined in the scramble to sign up business before 13 March this year, they would have been at risk of criticism for making profit out of privileged information. If they had abstained from the scramble, they would have lost out compared with their competitors.

Was there confusion about which contracts qualified before Budget Day and which did not?

5. The question is whether an insurance was or was not made on or before 13 March. That is a matter of general contract law - there are no special "Revenue rules" - and has been applied on many other occasions when there has been a tax change in the treatment of life assurance. I cannot believe that life assurance companies generally are in any doubt about the point of time at which they enter into a contract with their policy holders. However, I entirely understand that many companies would, as a matter of policy, wish LAPR to extend to proposals which had been submitted by Budget Day, even though the insurance was not made by Budget Day.

"Unseemly" reports about back-dating policies?

6. The Revenue are of course regularly monitoring claims for LAPR; and this will naturally be one of the matters which the audit teams will be looking at. If in any case evidence

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is found of fraudulent back-dating, it will in the normal way be for the Board to consider the appropriate action.

How much revenue was lost because of the scramble before 13 March?

7. Impossible to say at this stage. [If pressed. LAPR previously running at a rate of over £m700 a year. Some Offices quoted in papers as saying they have done a month's normal work in a fortnight. If that were correct - and representative - cost could be, say, £m30. But emphasise that is illustrative of one possible assumption - not an official estimate.]

Parallel with Fowler review on pensions?

8. Quite different - Fowler concerned with complex administrative rules: who should get pension, how much, and on what terms; and how the pension funds etc should operate. LAPR decision not concerned with anything to do with conditions of entitlement to life assurance policies or management of Life Offices. Straightforward policy decision, whether life assurance premiums should attract tax relief. (Note: the Chairman of the LOA is a member of the Fowler Committee).

A J G ISAAC

K 1

FROM : P L O'LEARY

INLAND REVENUE
POLICY DIVISION
SOMERSET HOUSE

27 March 1984

CHANCELLOR

SELECT COMMITTEE BRIEFING : COMPOSITE RATE - BUILDING SOCIETIES : NON-RESIDENTS

1. Present Position

a. The Building Society composite rate, a negotiated rate under voluntary arrangements, applies to residents and non-residents alike. Since composite rate is non-repayable, investment by non-residents is very small.

b. We have hitherto resisted suggestions by the Building Societies that non-residents should be excluded on the general grounds that, the greater the number of exclusions, the less truly representative the composite rate becomes. There were also in the past reasons for not wanting to attract a lot of foreign money into this particular area.

c. It has of course already been announced that the Bank composite rate scheme will not apply to non-resident depositors who provide their banks with a certificate of non-residency.

2. Legislative Plans

a. So far as Building Societies are concerned, only the bare minimum of alterations to the existing composite rate scheme (in ICTA 1970 Section 343) is being made in Finance Bill 1984 to provide for the determination of a composite rate which can apply alike to Building Societies and Banks.

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cc Chief Secretary
Financial Secretary
Economic Secretary
Minister of State
Mr Saunders
Mr Isaac
Mr Crawley
Mr Bush
Mr Munro
Mr Parker
Mr O'Leary

PSIIR.

K 2

b. Further amendments to Section 343 will be needed for the Building Societies, but these are being left until Finance Bill 1985. They are likely to cover inter alia exemptions and dates and methods of payment. (The 'smoothing' proposals have been shelved pro tem but the BSA may well resubmit them.)

3. Consultation with the BSA

a. We have already seen the BSA and outlined the minimum (for them) legislation proposals for Finance Bill 1984 and what is likely to be planned for Finance Bill 1985.

b. They have indicated that they will, after considering the published Finance Bill proposals, let us have a series of suggestions for amendment to Section 343. They said that exemption from composite rate for non-residents is likely to be high on their shopping list.

c. We have indicated that we shall be happy to talk with them further and expect a series of consultations on the legislative proposals.

4. The Governor of the Bank of England, in evidence to the TCSC, has "accepted the logic" of the case for an exemption from the Building Societies composite rate for non-residents (see Annex).

P L O'LEARY

K 3

ANNEX

Composite Rate

Mr Beaumont-Dark recalled that the Wilson Committee had recommended the abolition of the composite rate altogether. He suggested that the banks held deposits from non-taxpayers worth £3-4 billion, which following the introduction of this system might be moved elsewhere and not be available for productive investment. The Governor doubted that the banks would lose all those deposits. He explained the need for the banks and building societies to compete on equal terms; for simplification of the tax system and for saving Inland Revenue staff. Mr Townend asked whether the exemption of the banks foreign depositors from the composite rate should be extended to the building societies. The Governor accepted the logic of this suggestion, since the exemption had been made to keep foreign deposits in the UK and to take account of tax arrangements overseas.

L

Abolition of stock relief runs contrary to inflation accounting?

To some extent this is a move away from current cost accounting back to historical cost accounting. This does not mean that the Government is opposed to the accountancy profession's attempt to find an acceptable successor to the current cost accounting standard SSAP 16. But what is right for accountancy practice is not always right for tax. And the accountancy profession have not agreed on a new standard. The Government believe that in this time of continuing low inflation it is better to abolish distorting reliefs, like stock relief, and use the revenue to reduce tax rates.

L.

Anti-forestalling provision

M

The phased reduction of initial capital allowances provides an incentive to bringing forward the date on which expenditure is incurred. [There is nothing objectionable in economic forestalling, where capital equipment is delivered earlier. But financial forestalling, where only payments are advanced, is more objectionable.] To restrict the scope for taking excessive advantage of this phased reduction, there will be a provision applying where there is an interval between the date of payment and the date when the contract must be fulfulled, and the rate of capital allowances has changed between the two dates. This provision will spread the amount evenly over the interval for the purpose of capital allowances.

N1

Bringing Investment Forward

The Committee asked officials on 26th March about the effects of the CT package on bringing forward investment. We undertook to provide an estimate of the scale of this. We therefore propose to send them the paper attached to Mr Byatt's minute of 23rd March with an additional section that would make the following points:

a. there is always an incentive to bring forward investment, even under the arrangements in existence before the Budget, because the earlier that allowances are taken into account in calculating tax liabilities the lower the net present value of tax payments;

b. however, during the transition to the new system, the incentive to bring forward investment is greater because companies can then claim higher first year allowances and higher rates of corporation tax to apply to any given allowances;

c. the scope for claiming higher allowances will be restricted by the provisions ~~in Part II of Schedule 12 of the Finance Bill~~ (described in paragraph 5 of the Inland Revenue press notice on capital allowances);

d. the gains which can be obtained from bringing investment forward have to be set against the cost in terms of additional interest (net of tax relief) of bringing the investment forward;

e. the potential net gain is greatest for companies which bring forward investment from the beginning of one tax year to the end of the previous tax year (eg from April 1985 to March 1985);

f. but the benefits which can be obtained from advancing investment by more than a few months would need to be weighed against the risks involved;

g. it seems very doubtful, for example, that a company would want to advance a project by much more than a year in order to gain a few percentage points of the value of its investment;

N2

h. taking all these things into account, our estimate of the amount of investment that might be brought forward into 1984-85 is about 2 per cent of total company investment in 1985-86, and our estimate of the amount of investment that might be brought forward into 1985-86 is about $^1/_4$ per cent of investment in 1986-87.

COST OF CAPITAL

The cost of the capital required for any investment project is made up of the cost of raising finance plus the net effect of taxation (corporation tax and capital allowances).

2. The reduction in the Corporation Tax rate will raise retained earnings. Also the cost of new equity finance may fall as a result.

3. The company tax measures in the Budget further have the effect of changing the "wedge" - whether positive or negative - which the tax system puts between the return on a project and the yield to those who provide the finance. For given market interest rates the effect is to raise the minimum pre-tax return that firms require for investment in plant, machinery and industrial buildings; in other words the cost of capital can be said to be higher and the tax system will no longer be making some low return projects profitable. The opposite will in general occur with commercial buildings.

4. We shall be letting the Committee have a note on our estimates.

ABBREVIATION OF ANNEX ON QUALITY OF INVESTMENT

(Health warning. Chancellor well aware of theoretical problems in this area. All numbers dicey in one way or another. They show reasonably consistent pattern of low capital productivity.)

1. Compared with other countries, our tax system treats investment favourably, especially investment in manufacturing. There are two independent studies, Kopits (IMF) and Fullerton and King.

2. A study by Kopits compared actual post-tax returns resulting from the purchase of investment equipment with the returns required under "neutral" systems. The results were:

Tax (+) on, or Subsidy (-) to, Investment
(Percentage of asset price)

	1973	1978
UK	- 2.4	- 4.4
Belgium	+ 0.6	+ 5.9
France	+ 1.1	+ 7.6
Germany	+ 5.9	+ 4.0
Italy	+ 12.8	+ 22.0
Japan	+ 1.4	+ 1.4
Netherlands	+ 5.0	+ 7.7
US	- 3.0	- 0.6

3. Fullerton and King compared the pre and post-tax returns for various hypothetical cases and then weighted them to give industry figures. Assuming a 10% pre-tax real return, they found the 1980 post-tax returns would be as follows:-

	UK	Germany	Sweden	US
Plant and machinery	13.7	5.5	10.0	8.2
Building	6.1	5.7	6.3	5.9
Difference	+ 7.6	- 0.2	+ 3.7	+ 2.3

	UK	Germany	Sweden	US
Manufacturing	11.0	5.2	7.3	4.7
Commerce	6.4	5.6	6.1	6.2
Difference	+ 4.6	- 0.4	+ 1.2	- 1.5

4. The UK capital stock per worker does not seem to be out of line with that elsewhere (US, Germany, France). But figures are subject to error, especially for whole economy and are perhaps best not quoted. Average age of capital probably higher in UK even if value comparable.

5. We do not make good use of our investment:-

(a) capital stock figures, despite their imperfections, indicate a low output:capital ratio compared with US, France and Germany;

(b) we have a high ICOR compared with other countries. Adjusted for changes in employment, the picture for manufacturing is:-

Manufacturing

	ICOR(L)	
	64-73	73-79
	1.9	13.3
	1.1	0.1
	0.9	0.9
	0.8	2.0
	1.2	2.5

(c) rates of return are low:-

NET RATES OF RETURN*

	Non-financial corporations			Manufacturing (per cent)		
	1968-71	1972-75	1976-80	1968-71	1972-75	1976-80
UK	9	6	6	11	8	6
Germany	-	-	-	23	17	16
France	14	13	9	-	-	-
USA	17	14	14	24	20	18

*average for years specified.

P3

6. Several micro economic studies (Pratten, Centre for Inter-firm Comparisons, and DTI for UK, and Marketing Science Institute for US) show no clear relationship between efficiency and investment at the company level. The relationship is certainly not positive. Other factors seem much more important in explaining company performance.

DEU

27 March 1984

(C) 1

TCSC: EXAMPLES OF POOR PRIVATE SECTOR PROJECTS

You asked me for a short note giving examples of poor private sector projects, preferably where there was no Government involvement.

2. You will recall that Inland Revenue (Mr McConnachie) submitted some examples of "bad investment" in their minute of 8 March to the Chancellor.

3. These were:

British Aluminium smelter (Invergordon)

Wiggins Teape pulp mill (Fort William)

Rootes cars (Linwood)

British Steel (Ravenscraig/Llanwen).

Ford cars (Halewood)

I believe one way or another Government were involved in all the underlying investment decisions.

4. To these one might add, on the same anecdotal basis as the above:

Courtaulds (textiles)

Duport (steel)

ICI (petrochemicals)

5. Inland Revenue recommended at the time that no use be made of individual names. This was endorsed by the Chancellor (Mr Kerr's minute of 9 March to Inland Revenue). With respect, we are

(2)

certain this decision was right. If individual names are mentioned, the companies concerned will certainly demand to know why. They would see any such reference as hostile. We do not have any evidence to show that the companies were relying on capital allowances to justify their decisions to any extent. And if they were, one could scarcely hold them responsible for being indifferent as to how a satisfactory return was achievable.

6. As is obvious, I recommend strongly against using names.

P R GORDON

R

Arrangements for Assessing Public Expenditure Priorities, eg Raising VAT Ceiling v Health Service

The general framework within which the government assesses priorities is the Public Expenditure Survey. This is a regular annual exercise, now just getting under way for 1984. It involves the assessment of the implications for each expenditure programme of increases or decreases in provision; and enables Ministers collectively to consider both the aggregate spending levels and the need for adjustments between programmes. The results, as the Committee knows, are regularly set out in the Autumn Statement and subsequent Public Expenditure White Paper. One refinement of the system this year is the establishment of more formal arrangements within the Survey - a sub-Committee of the Public Expenditure Survey Committee - for assessing the government's priorities and objectives in relation to European Community expenditure.

[If pressed] It is necessary from time to time to take expenditure decisions outside Survey framework. To the extent this involves extra spending within the financial year in progress, this falls within the scope of the new Reserve arrangements - which are designed to ensure the public expenditure planning total operates as a control total.

R.

MANPOWER NUMBERS

S1

1. Mr Ralph Howell may well base questions on public service manpower on the following figures, which were given to him in Parliamentary answers last month.

Table 1

	1979	1980	1981	1982	1983
National Health Service					
Numbers employed†‖ (thousands, 30 September)	1,171	1,202	1,237	1,250	1,240
Expenditure‡¶ (£ million, current and capital expenditure for financial year beginning 1 April)	10,675	13,600	15,308	16,679	17,574
Local government					
Numbers employed†‖ (thousands mid-year)	2,997	2,956	2,899	2,865	2,879
Expenditure‡¶ (£ million, current and capital expenditure for financial year beginning 1 April)	21,260	24,710	26,195	28,234	30,673
Civil Service					
Numbers employed†● (thousands, 1 July)	739	714	698	671	654
Expenditure‡■ (£ million, pay costs for financial year beginning 1 April)	3,763	4,672	4,972	5,203	5,279
Nationalised industries					
Numbers employed†, (thousands mid-year)	1,777	1,744	1,586	1,485	1,404
Expenditure	•	•	•	•	•
Total					
Numbers employed†	6,684	6,616	6,420	6,271	6,177
Expenditure	•	•	•	•	•

Notes

• Not available.

† Civil Service manpower totals exclude the staff of the Northern Ireland Civil Service, hence the figures given are in respect of Great Britain only. All other manpower figures shown are for the United Kingdom. All manpower numbers are expressed as headcounts, with part-time staff counted as whole units. Figures on the alternative whole-time equivalent basis (which is more commonly used for the NHS and the CS) are not readily available for all four sectors.

‡ Expenditure statistics for the years 1979-80, 1980-81 and 1981-82 are outturn figures. Totals for 1982-83 and 1983-84 represent estimated outturn and planned expenditure. All expenditure figures shown are in respect of Great Britain only. Pay costs for the Civil Service include the cost of the employers national insurance contribution, and exclude the cost of the Northern Ireland Civil Service.

‖ Central Statistical Office.

¶ The Government's Expenditure Plans 1983-84, Cmnd. 8789 (tables 2.8, 2.11, 2.15 and 2.16)

● Her Majesty's Treasury and Civil Service Department records.

■ Chief Secretary's Memorandum on the 1983-84 Estimates (table 2)

S2

Table 2

	1960	1970	1979	1980	1981	1982	1983
CIVIL SERVICE (Great Britain)							
Numbers employed* (thousands 1 July)	652	716	739	714	698	671	654
Percentage of total population	1·3	1·3	1·4	1·3	1·3	1·2†	‡1·1
Percentage of total employed workforce	2·7	3·0	3·0	2·9	2·9	2·9	2·8
Total salaries† (£ million, for financial year beginning 1 April)	n/a	1.109	3.424	4.251	4.545	4.785	‖4.895
Percentage of UK gross domestic product (financial year basis)	n/a	2·1	1·7	1·8	1·8	1·7	n/a
LOCAL GOVERNMENT (United Kingdom)							
Numbers employed* (thousands, mid-year)	1.821	2.559	2.997	2.956	2.899	2.865	2.879
Percentage of total population	3·5	4·6	5·4	5·3	5·1	5·1	‡5·1
Percentage of total employed workforce	7·5	10·3	11·8	11·7	11·9	11·9	12·1
Total salaries† (£ million, on a calendar year basis)	n/a	2.945	12.305	15.329	17.615	18.809	n/a
Percentage of gross domestic product (calendar year basis)	n/a	5·7	6·3	6·7	7·0	6·8	n/a

Notes:

* Manpower statistics are given in headcount terms ie. part-time staff are counted as whole units. The Civil Service figures exclude those employed in the Northern Ireland Civil Service and the total population and labour force percentages for the Civil Service have been calculated on a Great Britain basis.

† Total salaries for the Civil Service are given for financial years and are in respect of Great Britain only. Local authority salaries are in respect of the United Kingdom and are given for calendar years.

‡ Estimated

‖ Supply Estimates 1983-84

Sources:

Central Statistical Office

Her Majesty's Treasury and Civil Service Department quarterly manpower returns

[illegible] Memorandum by the Chief Secretary to the Treasury on the Estimates

2. Other recent Parliamentary answers to Mr Howell are attached at Annex. (Not circulated available [illegible] DRN. [illegible])

3. On local authority manpower, Mr King announced on 20 March that, for the third quarter running, the Joint Manpower Watch (December Survey) showed an increase in total manpower numbers in local government, further confirming the upward trend which started in September 1981. Manpower costs account on average for almost three-quarters of local government gross current expenditure.

4. On National Health Service manpower, the government last year settled manpower targets with Regional Health Authorities, providing for a reduction of 4,800 staff (½ per cent) between March 1983 and March 1984. It is not expected that there will be such targets for 1984; rather, new arrangements have been introduced from 1984-85 whereby manpower control is to be the central feature of health authority short-term programmes and an integral part of overall planning. Authorities will be expected to ensure that manpower targets will be consistent with both the cash available and in-service objectives. Any unsatisfactory manpower plans will be rejected.

5. The NHS Management Inquiry (The Griffiths inquiry) on the effective use and management of manpower and related resources in the NHS reported in October, and its general thrust has been accepted by the government: all health authorities are required to carry out a substantial and sustained cost improvement programme, which will make services more efficient and release resources for improved services and new developments.

6. The government is also urging health authorities to contract out services to the private sector wherever it would be economical to do so (VAT relief is now available to facilitate this process).

7-7-83
HANSARD.

[Mr. Ioan Evans]

when hon. Members on both sides of the House who oppose the death penalty did not know that the motion was to be tabled?

Mr. Biffen: I am sure that there is a succinct and convincing explanation. I do not have it at my fingertips, but I shall be in touch with the hon. Gentleman.

Mr. Teddy Taylor (Southend, East): The Prime Minister has today given a most welcome assurance that if the House votes for capital punishment on Wednesday Government time will be provided for a Bill. Will my right hon. Friend make it clear that the time will be offered in this Session of Parliament?

Mr. Biffen: I cannot go beyond what my right hon. Friend the Prime Minister has said.

Mr. Robert Kilroy-Silk (Knowsley, North): The Prime Minister has also said that the Government will help with the drafting of a Bill if the House votes in favour of the restoration of capital punishment. What are the precedents for such a commitment? May we take it that every time the House endorses a ten-minute Bill the Government will help with the drafting?

Mr. Biffen: There are many precedents for Government Departments assisting in the passage of private Members' legislation.

Mr. Tam Dalyell (Linlithgow): Last Thursday, as reported at c. 709 of *Hansard*, the right hon. Gentleman very courteously said that he would consider the matters raised by my right hon. and learned Friend the Member for Aberavon (Mr. Morris) and myself and refer them to the relevant Minister. Who was the relevant Minister, and what did he say.

Mr. Biffen: I am not yet in a position to give the hon. Gentleman the response, but as soon as I have it I will pass it to him.

Mr. Greville Janner (Leicester, West): I draw the right hon. Gentleman's attention to early-day motion 49, signed by 93 Opposition Members.

[That this House recognises the disgraceful profit made by the Government from fees for British Citizenship; and calls for their immediate reduction in line with the Third Report of the Home Affairs Committee of Session 1982-83.]

It draws attention to the insupportable profit made by the Government from fees for British citizenship which have been denounced by the Select Committee on Home Affairs. Do the Government intend to act on the recommendation to reduce the fees? If not, may we have a debate or, at the very least, a statement from the Home Secretary?

Mr. Biffen: I shall ask whether the Home Office will comment on that recommendation from the Select Committee and I will see that the hon. and learned Gentleman is informed.

Public Expenditure

3.46 pm

The Chancellor of the Exchequer (Mr. Nigel Lawson): It is now clear that public expenditure is running at a significantly higher level than is consistent with the 1983-84 planning total of £119·6 billion announced in the public expenditure White Paper, Cmnd 8789, presented by the then Chancellor on 1 February. Some adjustment is clearly needed. I have therefore decided that immediate action must be taken to bring about savings that will bring total spending closer to the planned path. It is both more efficient in terms of departmental management of programmes and more effective to take this action straight away.

Accordingly, the cash limits for the current year will be reduced. The effect will be a 1 per cent. reduction in respect of the pay and central Government administrative element and 2 per cent. reduction in the remainder. The new cash limit figures will be announced as soon as possible.

The total provision for the external financing limits of the nationalised industries will similarly be reduced by 2 per cent. This reduction will be allocated in proportion to their turnover.

The effect of these measures will be to remove at least £500 million of overspending beyond the planned total.

In addition, the programme of asset sales during the current year will be increased by a further £500 million.

Finally, I am also taking the opportunity to introduce some improvements in expenditure control. In particular, a scheme of end-year cash limits flexibility will be introduced. This will permit some carry-forward of underspend on central Government capital programmes. Such a change has, of course, long been advocated by Departments such as the the Ministry of Defence, with substantial capital programmes involving expenditure stretching over a number of years. The change, I believe, is fully justified on managerial grounds, but introducing it as from this financial year should in practice, by reducing the end-year surge, reduce expenditure in the current year by some £100 million. The effects in future years will be taken into account in the forthcoming public expenditure survey. I am satisfied that parliamentary control of expenditure will not be diminished.

The overall effect of the savings and other measures that I have announced will be to reduce this year's likely public expenditure outturn by more than £1 billion. They do not imply any reductions in total as published in the February White Paper. Rather, they are designed to bring spending closer to the course laid down in my predecessor's White Paper.

I told the House on 29 June that in order to maintain the right balance between public borrowing and interest rates we intended to maintain firm control of public spending. I also made clear my determination to take action should our objectives be endangered. Our economic strategy has brought about low inflation and a quickening recovery. We are determined to ensure that unplanned overspending does not deflect our course and put that recovery at risk.

Mr. Peter Shore (Bethnal Green and Stepney): This is an astonishing statement in content and timing. Whatever it does for the Chancellor's reputation as an

axeman, he has this afternoon at a stroke destroyed the credibility and integrity of the Prime Minister, his predecessor and his colleagues. Does the Chancellor recall that, only four weeks ago on 5 June, when asked point blank whether she intended to cut public expenditure, the Prime Minister said:

"We have laid out our plans for the next three years on Government spending. They are there for everyone to see and discuss . . . I wish more discussion concentrated on those, instead of the scares and leaked documents we had."

Is it not plain, four weeks later, that a disgraceful fraud and swindle has been perpetrated on the British people? Does the Chancellor recall also his statement only last Sunday on Channel 4 that he had seen no papers on public expenditure proposals and that the public expenditure review was "about to start"?

Since it has taken the Chancellor exactly four days to produce and announce these measures involving £500 million of cuts in public expenditure and £500 million in the forced sale of public assets, will he tell the House what new factors to justify these cuts have emerged this week which were not present a week ago or, for that matter, four weeks ago before the general election? Is not the cause of this alleged overspending the Government's deliberate decision to make inadequate provision for the Contingency reserve, which was slashed by over £1,000 million in the public expenditure White Paper earlier this year, and, further, to make provision for the first time for an alleged shortfall of over £1,200 million? This was cynically done in advance of the general election, and it was revealed swiftly afterwards for what it was—a fraud.

Can the Chancellor also tell us whether, before he produced these proposals, his colleagues knew about them when they produced yesterday's record-spending defence White Paper or agreed to yesterday's Finance Bill provisions in which the Government propose to give away £400 million for the benefit of the rich? Was the Chief Secretary speaking yesterday with the Chancellor's approval when he said,

"panic measures will not characterise this Administration."—[*Official Report*, 6 July 1983; Vol. 45, c. 284.]

Is this not a classic example of a Treasury panic and a Cabinet bounce? Is not the only possible excuse for this piece of outrageous political cynicism the Chancellor's obsession with the medium-term financial strategy and the money supply and his grovelling subservience to City opinion? Does the Chancellor understand that it is unacceptable not only to the Labour party but to the British people that he should continue with his Finance Bill proposals to give away £400 million a year to the already well-off and allow thousands of millions of pounds of British capital to flow overseas while he wields his axe on social services, including health, education and social welfare, which are of crucial importance to 95 per cent. of our people, including the disadvantaged poor?

Let him publish, and show the House in detail, the proposals that he has put in such general terms in the statement. Let him withdraw his Finance Bill and let the Prime Minister and him make an unreserved apology to the British people whom they have deceived.

Mr. Lawson: I understand the desire of the right hon. Member for Bethnal Green and Stepney (Mr. Shore) to make a good impression on his colleagues because of the leadership stakes. However, it would have assisted the House more if his comments had borne more relation to my statement. He said, for example, that I had departed from the statements made by my right hon. Friend the Prime Minister on a number of occasions during the election campaign that our plans were set out in the public expenditure White Paper. The purpose of these savings is to bring the figures back from overspending closer to those that are in the public expenditure White Paper. That is precisely what they are.

The right hon. Gentleman knows well that the public expenditure survey deals with the years 1984-85 and thereafter——

Mr. Jack Straw (Blackburn): Lies.

Mr. Speaker: May I ask the hon. Member who made that remark to withdraw it?

Mr. Straw: I withdraw.

Mr. Speaker: I am grateful to the hon. Member.

Mr. Lawson: There are no cuts in public expenditure totals as a result of these measures. They are the result of a prudent budgeting and are what any prudent Chancellor and Government would seek to do.

The Finance Bill was the second half of a Finance Bill which began during the previous Parliament. It was designed to cut income tax at all levels, which is and will continue to be the Government's objective wherever the opportunity arises to carry it out.

Mr. Shore: The Chancellor has not begun to answer the questions that he was asked. Let me put one straight question to him. Is he telling the House that neither he nor the Prime Minister knew four weeks ago, before polling day, with full access to all the information available to his colleagues in the Government, that a £1,000 million cut in public expenditure was going to come almost immediately after the polling stations had closed. Tell us now.

Hon. Members: Answer.

Mr. Lawson: I will gladly answer if I am given an opportunity to do so. As the right hon. Gentleman ought to know, information about central Government borrowing, public expenditure and so on gradually flows in. As the year progresses, a fuller picture emerges, but there comes a time when, if action is to be taken during the course of a year, it has to be taken. That action has to be taken now.

Mr. Edward du Cann (Taunton): I welcome and, indeed, applaud my right hon. Friend's early expressed determination to keep Government expenditure within control, which is in the interests of us all. I applaud especially the arrangements he is making for the end-of-year difficulties which have been much discussed in the House in the past. Will he be good enough to say what action he has taken to give effect to the wish, also often expressed in the House, that a greater proportion of Government expenditure should go to capital projects and a lower proportion to administration?

Mr. Lawson: I believe that I have met the point made by my right hon. Friend because local authority capital expenditure is excluded from my announcement.

Mr. Richard Wainwright (Colne Valley): Does the Chancellor realise that his curt and peremptory diktat shows far too little regard for the responsibilities of the House of Commons? How does he square his statement with the words in this year's White Paper on public expenditure on page 9 that

[Mr. Richard Wainwright]

"Cash limits will not normally be changed during the year"? Will the Chancellor give the House his best estimates of the effect of what he has said on health, housing, law and order and other programmes?

What does the right hon. Gentleman mean by the words "A scheme of end-year cash limits flexibility"?

Mr. Lawson: On the hon. Gentleman's third question, what I mean is what I said—there will be provision within limits for underspend on capital in one year to be carried forward into the next.

As for how it affects the National Health Service, there will be no resulting reduction in expenditure on the National Health Service beyond the White Paper figures. spending on the family practitioner service is running ahead of what was planned and, therefore, there will be savings of an equivalent amount elsewhere in the National Health Service to pay for the additional expenditure on the family practitioner service.

As for the question about cash limits not normally being changed in the year, that is the case. They are not normally changed in the year.

Mr. David Howell (Guildford): Does my right hon. Friend accept that the proposal for end-year flexibility will greatly assist with the planning of sensible capital projects by central Government Departments, and will therefore help with the development of central Government capital spending of precisely the type that hon. Members on both sides of the House have demanded?

Mr. Lawson: I am most grateful to my right hon. Friend for his remarks. He has great experience in this area.

Mr. William Ross (Londonderry, East): Does not the proposal for end-year cash limit flexibility represent a major change in the procedure followed hitherto? Will that £100 million saving be added to next year's expenditure, or deducted from it?

Mr. Lawson: That is a matter for consideration in the normal way, in the context of the public expenditure survey discussions.

Mr. Terence Higgins (Worthing): Is it not now clear that cash limits are an effective way of controlling expenditure in real terms when prices are rising but a very slack method of controlling it when inflation is falling rapidly, as it has done under this Government? That being so, will my right hon. Friend consider whether we do not need some basic change in the system instead of such ad hoc measures?

Mr. Lawson: I shall gladly consider my right hon. Friend's suggestion. He is right that, because prices have been rising rather more slowly than we expected, there is scope, particularly in the non-pay cash limits, for the type of saving that I have mentioned.

Mr. John Morris (Aberavon): Is it not a remarkable coincidence that this great truth should be revealed exactly four weeks after the election? Were there not indications of the situation a month ago? Would it not have been more honourable of the Government to disclose the reality and the truth in the prospectus that they offered the British public? Are not people put behind bars in the commercial world for issuing a false prospectus? Exactly how will the right hon. Gentleman's statement affect the British Steel Corporation and part of its proposals for Port Talbot?

Mr. Lawson: Although I have not made a study of the matter, I should have thought that on the whole more business men are put behind bars through not sticking to their budgets than through sticking to them.

Mr. Robin Maxwell-Hyslop (Tiverton): Having stated that he is not cutting expenditure, but checking overspend, will my right hon. Friend demonstrate his competence in administration as a Chancellor of the Exchequer by ensuring that those who overspend are checked, and, equally, that those who do not overspend do not suffer a cut because of the overspending of others? Will he particularly bear in mind the local authorities that have kept a tight control on their expenditure and that should not suffer cuts because others have failed to do so?

Mr. Lawson: It is clear from my hon. Friend's remarks that he is particularly concerned about local authority expenditure, and I am sure that my right hon. Friend the Secretary of State for the Environment, who heard those comments, will take note of them.

Mr. Jack Dormand (Easington): Does the right hon. Gentleman intend to await the result of the Government's investigation into regional aid before deciding on what action to take on such expenditure, or are cuts already envisaged and contained in his statement?

Mr. Lawson: I have announced reductions in cash limits pretty well across the board. No specific programmes or policy decisions, such as those suggested by the hon. Gentleman, are affected.

Mr. Anthony Nelson (Chichester): Notwithstanding the Opposition's huffing and puffing, will my right hon. Friend confirm that his statement really does not announce any increase in expenditure and that, far from being a false prospectus, it sticks to the existing White Paper on public expenditure? Will he also confirm that many people feel that the best prospect of revitalising industry and of achieving a higher level of employment lies in lower interest rates, which are more likely to be achieved if we restrain runaway public expenditure and the consequential public sector borrowing requirement?

Mr. Lawson: My hon. Friend is right on both scores. His second point is particularly important. The alternative to allowing the overspend to remain unchecked would almost certainly be much higher interest rates, which would be very damaging to the private sector and industry in general, as well as to the recovery and to jobs.

Mr. Norman Atkinson (Tottenham): Even in terms of Thatcherite morality, how can the Chancellor justify butchering 50,000 jobs for the sake of a minimal effect on interest rates, when other methods are open to the Government for achieving exactly the same aim, without the loss of jobs?

Mr. Lawson: I do not completely recognise that point, but then we have often discussed the hon. Gentleman's understanding of how the economy works and mine, and his understanding is slightly different.

Mr. Matthew Parris (Derbyshire, West): As the cut is very small and is really no more than the difference between a good winter and a bad winter, why occasion all the fuss for such a small prize?

Mr. Lawson: My hon. Friend has made a fair point, but I do not consider a reduction of £1 billion in an overspend to be insignificant.

Mr. Harry Ewing (Falkirk, East): If the Chancellor of the Exchequer is saying that there has been no change from his earlier proposals in February, why on earth is he proposing to reduce the cash limits by 2 per cent. and to apply, for the first time in history, a cash limit to the general practitioner service? If the right hon. Gentleman is now introducing a cash limit to the general practitioner service and the Health Service he had better tell the country as much. Given this bad economic news, the bad economic news from the building societies and the petrol companies, and the fact that the Prime Minister said, during the election, that there was no bad economic news to come, can he blame the people of this country for thinking that the Conservative party, led by the Prime Minister, cheated them during the election?

Mr. Lawson: I am glad to have the opportunity to set the hon. Gentleman's mind at rest. I did not say that the family practitioner service was being cash limited; it is not. Some public expenditure is cash limited and some is non-cash limited. It is demand determined. Basically, there is an entitlement, and the demand determines the expenditure. To a considerable extent this year, expenditure in a number of the non-cash limited programmes—of which the family practitioner service is one—has increased beyond the level planned, expected and implied in the public expenditure White Paper. Therefore, offsetting savings have to be made in the cash limited expenditure.

Sir Kenneth Lewis (Stamford and Spalding): What new public assets, over and above those already on our list, do the Government propose to sell to make up the £500 million? Will my right hon. Friend give an assurance that we shall not sell capital in order to spend as revenue?

Mr. Lawson: The House will, of course, be informed when the time is right, but I am sure that my hon. Friend would not wish me to reveal in a clumsy way possibly market-sensitive information.

Dr. Jeremy Bray (Motherwell, South): Can the Chancellor explain that what is really happening, in the words of the Bank of England, is that there has been a continuing tendency for the money supply to grow faster than nominal incomes, reflecting financial innovations? Therefore, it is not surprising that sterling M3 and PSL2 are growing faster than the 7 to 11 per cent. target range. However, to keep down interest rates the right hon. Gentleman is having to take token action on public expenditure. Does he acknowledge that the £500 million cut is less than the change in the seasonal adjustment made in the central Government borrowing requirement in only the first two months of this year? Is not the change that he is making thus purely trivial?

Mr. Lawson: The change is certainly not trivial, but I note the hon. Gentleman's advice that I should have gone for a larger reduction.

Mr. Tim Smith (Beaconsfield): Why is public expenditure running so much higher in the fourth quarter of the fiscal year than the planned total which was published as recently as February this year? What action does my right hon. Friend propose to take to ensure that such a wide discrepancy will not occur in future?

Mr. Lawson: There is a problem with monitoring and controlling public expenditure. I have mentioned one innovation, the end-year flexibility on capital projects, which I hope will be of some assistance. I hope to agree a better system of information flows in that area with my ministerial colleagues.

Mr. Sydney Bidwell (Ealing, Southall): Have still rising unemployment and the increasing costs therefrom caused the Chancellor to predict future cuts in real terms in unemployment benefit?

Mr. Lawson: I have made no such proposals.

Mr. Nigel Forman (Carshalton and Wellington): I recognise my right hon. Friend's understandable ambition as Chancellor to keep public expenditure to its planned path, but does his decision today reveal an underlying doctrine that wherever and whenever demand-driven public expenditure rises discretionary public expenditure will have to be further reduced?

Mr. Lawson: There is no automatic formula. It is a matter of judgment. My judgment in the present circumstances was that the overspend occurring this year should not be allowed to go unchecked. I have announced the savings that will enable us to check it.

Mr. Jack Ashley (Stoke-on-Trent, South): The Chancellor now denies that he made any proposal to cut unemployment pay. Is he aware that his statement today and his more incautious statement on televison a few days ago to cut unemployment pay are contemptible, and that to describe the present low rate of unemployment benefit as a disincentive is an insult to the 4 million who are unemployed because no jobs are available?

Mr. Lawson: The right hon. Gentleman will be well aware that in November unemployment benefit will increase by substantially more than the rate of inflation.

Mrs. Edwina Currie (Derbyshire, South): I welcome year-end flexibility on capital programmes, but does my right hon. Friend recognise that slippage is often the excuse for incompetent management of capital programmes in the public sector? Does he further recognise that the execution of public sector capital programmes needs speeding up, particularly in the National Health Service, and that capital should not be allocated where it cannot be spent?

Mr. Lawson: My hon. Friend has made some shrewd observations.

Mr. Dick Douglas (Dumfermline, West): Does the Chancellor accept that his statement clearly shows economic mismanagement which was well known to the Government prior to the election? What will be the effect on jobs of the curtailment of the external financing limits of the nationalised industries? What will be the effect on jobs in British Shipbuilders? Further to the question by the hon. Member for Stamford and Spalding (Sir K. Lewis), is the right hon. Gentleman really asking the House to accept that he is prepared to raise £500 million from the market but that he does not know which assets to sell?

Mr. Lawson: That was not precisely what I said.

On the first part of the hon. Gentleman's question, prices are rising more slowly than we had earlier expected. The recovery is going ahead a little quicker than was expected at the time of the Budget. The economy is on

[Mr. Lawson]

course. The purpose of this adjustment of the public sector borrowing requirement is to keep it on course. Keeping it on course is the best prospect for jobs.

Mr. Tim Eggar (Enfield, North): Will my right hon. Friend confirm that the 2 per cent. cash reduction for the nationalised industries will be met by their increasing efficiency rather than by raising prices?

Mr. Lawson: I very much hope that that will be the case. I am sure that those of my ministerial colleagues with responsibilities for nationalised industries will see that that is so.

Mr. Robert Maclennan (Caithness and Sutherland): Why does not the Chancellor's statement show how this overshoot came about? Why should we accept that he will not in future depart from the rubrics about the reduction in cash limits in the course of the year to which the hon. Member for Colne Valley (Mr. Wainwright) referred if he was not able to maintain better control within the four months of the year which have passed since the public expenditure White Paper was published?

Mr. Lawson: This problem has arisen not over four months but during the final quarter of 1982-83——

Mr. Straw: The right hon. Gentleman knew about it.

Mr. Lawson: —and continued into the first quarter of this year.

Mr. Straw *rose*——

Mr. Lawson: My right hon. and learned Friend the Foreign Secretary made it clear that the final outturn for the public sector borrowing requirement for 1982-83 was considerably in excess of the figure that he had estimated at the time of the Budget.

I assure the hon. Gentleman that I would not have come to the House today to make this statement had it not been necessary.

Mr. Barry Henderson (Fife, North-East): Does my right hon. Friend agree that the rather ill-informed comments of the Opposition show more huff than puff? Does he further agree that the significance of his statement today is that it is more of a signal about the Government's determination to keep firm control over public expenditure than specific measures, important though they are?

Mr. Lawson: I think it is both.

Several Hon. Members *rose*——

Mr. Speaker: Order. I propose to call first, those hon. Members who have been seeking to catch my eye and then the Opposition Front Bench.

Mr. Dennis Skinner (Bolsover): Is it not true that we now know why the Tory Government cut and run and had the election only a few weeks ago? Even assuming that a few Tory Members behind the Chancellor—there are not many—might believe this story, did the right hon. Gentleman know about this looming catastrophe at the time of the Government's decision to spend several hundred million pounds on an airport in the Falklands, especially when the Prime Minister had been urging banks to hand over money to the Argentines so that they could buy more missiles to blow up the airport which would then have to be rebuilt? Is it not a fact that the Government are handy at giving money to the Falklands, and to the Argentines but that they provide only the dole and poverty for those in Britain?

Mr. Lawson: I notice some difference between the hon. Member for Bolsover (Mr. Skinner), who describes this as a looming catastrophe, and the hon. Member for Motherwell, South (Dr. Bray), who described it merely as a triviality.

The overwhelming majority of the British people believe that we have a duty to preserve the freedom of the Falkland Islanders.

Mr. John Wilkinson (Ruislip-Northwood): I welcome my right hon. Friend's statement that the Treasury is to move away from the principle of annuality in the budgeting of costly equipment programmes as this will greatly enhance the efficiency of their project management. Will he initiate discussions with the Ministry of Defence with a view to moving over to the American system of public tendering for costly equipment programmes as that could be an economic and efficient way of dealing with the matter?

Mr. Lawson: I note my hon. Friend's remarks. It is important that throughout the public sector—this applies to the Ministry of Defence as much as to any other Department—we should get value for money.

Mr. Derek Foster (Bishop Auckland): Are not the Chancellor's proposals a desperate attempt to avoid increasing interest rates which the logic of his policies implies? The right hon. Gentleman knows that a rise in interest rates will cut off this thin and patchy recovery.

Mr. Lawson: I have no wish to see interest rates rise unnecessarily, and I am sure that that goes for Members on both sides of the House. This is not a desperate attempt but a prudent measure to bring public expenditure closer to the figures published and approved by the House of Commons.

Mr. Richard Body (Holland with Boston): Further to the allegation a few weeks ago about a false prospectus, does my right hon. Friend agree that a few weeks ago Conservative Members were saying that any Government who failed to match expenditure with taxation would be cheating the British people because that would lead to a higher rate of inflation which in turn would create more unemployment?

Mr. Lawson: My hon Friend is correct. The false prospectus put before the British people was that of the Labour party, which claimed that it had a magic cure for unemployment.

Mr. John McWilliam (Blaydon): Will the Chancellor of the Exchequer reflect on the answer that he gave to his right hon. Friend the Member for Taunton (Mr. du Cann) about the need to stress capital projects? When he makes his cuts in the external financing limits of the nationalised industries, will he bear in mind that the proposed method by which he wishes to do it will have no relationship to their expenditure programmes and will therefore cause unemployment problems? Will the right hon. Gentleman tell us how many jobs his proposals will cost now, not how many jobs he thinks might be created in the future? He has admitted that whatever figure he uses about the future will be inaccurate; his planning is so rotten anyway that he cannot give the right figure.

Mr. Lawson: The hon. Gentleman is under the illusion that simply spending public money creates jobs. That is not the case, as the last Labour Government found to their cost.

Mr. Tony Marlow (Northampton North): Does my right hon. Friend agree that his statement makes it absolutely essential that we get our budget rebate from the European Community this year? As the House is anxious to help him, will he let us in on his thinking about the measures which the Government would take should the European Assembly put a block on our budget rebate?

Mr. Lawson: Nobody could have fought harder for our budget rebate than the Prime Minister. I suggest that we need not consider what measures might be taken in the sort of hypothetical circumstance my hon. Friend cites.

Mr. Robert C. Brown (Newcastle upon Tyne, North): It is normal for end-of-term reports to refer to performance. Is the Chancellor aware that, on his performance at the Dispatch Box today, the comment on his beginning-of-term report must be, "Must do better" because he has not answered frankly one question that he has been asked about the statement?

Is the right hon. Gentleman aware that we in the north-east of England who have been crucified by the Conservatives in the last four years must feel the deepest anxiety about the 2 per cent. cutback on the nationalised industries, particularly shipbuilding, where jobs are already severely at risk? What is now proposed must bring about further job losses. Will the right hon. Gentleman be a little less coy and say exactly where the added £500 million of public asset-stripping will take place this year?

Mr. Lawson: The total amount of the 2 per cent. for the nationalised industries as a whole is between £50 and £60 million, so perhaps the hon. Gentleman is exaggerating the impact which that might have.

Mr. Alfred Dubs (Battersea): On what date did the Chancellor first become aware that he would have to take the steps he has announced today?

Mr. Lawson: As I mentioned in answer to an earlier question, there is a continual flow of information during the course of the financial year; it comes week by week, almost day by day. Eventually a picture emerges, and when that picture emerged and I thought that the time had come when action had to be taken—[HON. MEMBERS: "When?"]—I put that proposal to my colleagues and they accepted it.

Mr. D. N. Campbell-Savours (Workington): Is it not clear to the Chancellor that my hon. Friends believe that he is deliberately ducking telling the House what the public sector implications are in terms of unemployment as a result of the statement? Will he now give a figure from the Dispatch Box, because his departmental officials will have provided him with that figure?

Will he also answer the question put by my right hon. Friend the Member for Bethnal Green and Stepney (Mr. Shore) as to why yesterday he introduced a Bill to reduce taxation by £400 million for 3 per cent. of the population, the better off in society, when, within 24 hours he must come to the House further to cut public expenditure by £500 million? Where is the consistency?

Mr. Lawson: This is not a cut in public expenditure. [HON. MEMBERS: "It is."] No, it is a measure to reduce an overspend and to bring public expenditure closer to the budgeted totals and the published totals in the public expenditure White Paper.

As for the measures in the Finance Bill which we debated yesterday, they must be seen as part of the Finance Bill which was introduced by my right hon. and learned Friend the Member for Surrey, East (Sir G. Howe) which are for a reduction in income tax across the board and which were welcomed by hon. Members in most parts of the House. It might have eluded the hon. Gentleman that Conservative Members are in favour both of firm and proper control of public expenditure and reductions in taxation, and there is no inconsistency between the two.

Mr. Campbell-Savours: When they are for only 3 per cent. of the population?

Mr. Michael Meadowcroft (Leeds, West): If the Chancellor is to represent end-year cash limit flexibility as a way of controlling expenditure, will he assist local authorities also to control their expenditure by giving them a similar power?

Mr. Lawson: Local authorities already have a form of end-year flexibility which central Government do not possess.

Mr. Mark Fisher (Stoke-on-Trent, Central): The Chancellor has twice said that there were new sources of information, not available to him in the past, which led to today's statement. Will he please specify what those sources of information were and the dates on which he received them? Unless he can satisfy the House on those two points, surely he would concede that he must be misleading the country and the House? Will he therefore specify the information and the dates?

Mr. Lawson: I am afraid that I cannot give the hon. Gentleman my working diary. [HON. MEMBERS: "Why not?"] For one thing, I do not have it with me. To suggest that the House is being misled could not be further from the truth. [HON. MEMBERS: "Answer."] The plain truth —as the Prime Minister and the then Chancellor made clear during the election campaign — is that we undertook not to reduce public expenditure this year below the figures in the public expenditure White Paper. What I am proposing now is a measure to reduce an overspend so as to get closer to the figures which were published and approved by the House.

Mr. Shore: The House is entitled to rather more frankness and directness from the Chancellor than it has received so far. I am looking at the script of the right hon. Gentleman's broadcast as recently as last Sunday. Then, when asked specifically about public expenditure proposals and cuts, he said:

> "I have seen no such paper. I am not looking at papers of that kind."

We want to know what new material came forward, or what previous material was available to his predecessor as Chancellor and the Prime Minister before Sunday. We want to know the full details of the proposed cuts which are scattered about in the statement. When will we get those details?

I find it almost unbelievable, in the light of the separate statements made by his ministerial colleagues on defence yesterday and on Health Service expenditure a few days ago, that those two services should be included in the proposed cuts. If they are, what kind of a Government have we who change their mind within 24 hours?

[Mr. Shore]

And that brings us back to the question as to what has caused this major change in Government policy. The Chancellor has time and again refused to give what every Government, when contemplating public expenditure, give to themselves and their colleagues, and that is an estimate of the unemployment effects. We want to know what the unemployment effects now are. We shall demand a full debate at an early opportunity on these appalling proposals and, indeed, on the whole statement.

Mr. Lawson: The right hon. Gentleman referred to my statement on Sunday. That was when I was being questioned on papers about unemployment benefit, which has nothing whatever to do with what we are talking about today.

As for defence and the Health Service, despite the reduction in the cash limits which I have announced, defence expenditure this year will still be 3 per cent. in real terms higher than in the previous year. As I said earlier, there is no reduction in total expenditure on the National Health Service below the total figure in the public expenditure White Paper.

Mr. Campbell-Savours: What about jobs?

Mr. Lawson: The proposals which we are putting forward are part of a policy — the best policy — for securing new jobs on a sustainable basis in the future.

The answer to the question about the new cash limits is that they will be published as soon as possible.

British Shipbuilders (Redundancies)

4.29 pm

Mr. Don Dixon (Jarrow): I beg to ask leave to move the Adjournment of the House, under Standing Order No. 10, for the purpose of discussing a specific and important matter—I would be grateful if the right hon. Lady the Prime Minister would stay to listen to this because I am raising an extremely important issue — that should be given urgent consideration, namely,

"the announcement by British Shipbuilders of further massive redundancies in the shipbuilding industry, and the Government's total disregard of the problems facing that industry."

British Shipbuilders has recently announced that it is to sack another 3,695 workers in the next three months. Over 1,800 of those workers will be in the north-east. They will all be in areas that already have levels of unemployment that are far too high.

In my constituency of Jarrow 6,300 people are on their bicycles chasing 32 registered vacancies. The hit list of British Shipbuilders is as follows: 510 to be sacked at Swan Hunter Shipbuilders Ltd, 53 at Clelands Shipbuilding Company Ltd, 46 at Clark Hawthorn Ltd, 752 at Austin and Pickersgill Ltd, 263 at Sunderland Shipbuilders Ltd, 110 at Sunderland Forge and 216 at the Smith's Dock Company Ltd on Teesside. These are part of the 9,000 redundancies that have been suggested for the next 12 months by British Shipbuilders.

Over the past few years the shipbuilding industry has suffered 25,000 redundancies. During the same period the men's wages have dropped from third place in the wages league to 19th while productivity has increased by 15 per cent.

The men are saying that enough is enough. Mr. Bob Glass, the chairman of the Confederation of Shipbuilding and Engineering Unions in the northern region, is quoted in this morning's edition of *The Newcastle Journal* as saying:

"My advice to Swan's workers is to stand up and fight to save your jobs."

I agree wholeheartedly with that statement. They should be fighting to save their jobs and the industry. It is only just over 12 months since these men were working night and day to get the task force ready for the Falklands dispute. The general manager of Swan Hunter received a medal in the Falklands honours list for the efforts of the 2,000 men who worked so hard preparing the task force. These men are now getting their names mentioned in the Falklands honours list by getting the sack from British Shipbuilders.

A debate is required urgently to discuss the Government's action, or inaction, in trying to save this important industry. According to the chairman of British Shipbuilders, the Government have turned down a request for crisis help. I want to know what the Government intend to do about the unfair competition that British Shipbuilders is facing. I want to know also whether British Shipbuilders will continue to fight in accordance with the Marquess of Queensberry rules while everyone else is indulging in all-in wrestling. The people are not prepared to accept the solutions of the 1930s to the problem of the 1980s. Therefore, we require an urgent debate.

Mr. Speaker: The hon. Member for Jarrow (Mr. Dixon) asks leave to move the Adjournment of the House

7 JULY
P.EXP. STATEMENT

PUBLIC EXPENDITURE

It is now clear that public expenditure is running at a significantly higher level than is consistent with the 1983-84 planning total of £119.6 billion announced in the Public Expenditure White Paper (Cmnd 8789) presented by the then Chancellor on 1 February. Some adjustment is clearly needed; and I have therefore decided that immediate action must be taken to bring about savings that will bring total spending closer to the planned path. It is both more efficient in terms of departmental management of programmes, and more effective, to take this action straightaway.

2. Accordingly, the cash limits for the current year will be reduced. The effect ~~of the reduction~~ will be a 1 per cent reduction ~~cut~~ in respect of the pay and central government administrative element, and a 2 per cent reduction in ~~cut for~~ the remainder. The new cash limit figures will be announced as soon as possible.

3. The total provision for the External Financing Limits of the nationalised industries will similarly be reduced by 2 per cent. This reduction will be allocated in proportion to their turnover.

4. The effect of these measures will be to remove at least £500 million of ~~over-shoot~~ carry-forward beyond the planned spending total.

5. In addition, the programme of asset sales during the current year will be increased by a further £500 million.

6. Finally, I am also taking the opportunity to introduce some improvements in expenditure control. In particular, a scheme of end-year cash limits flexibility will be introduced. This will permit some carry-forward of underspend on central Government capital programmes. Such a change has of course long been advocated by departments, such as Defence, with substantial capital programmes involving expenditure stretching over a number of years. The change, I believe, is fully justified on managerial grounds, but introducing it as from this financial year should in

practice, by reducing the end-year surge, reduce expenditure in the current year by some £100 million: the effects in future years will be taken into account in the forthcoming Public Expenditure Survey. I am satisfied that Parliamentary control of expenditure will not be diminished.

7. The overall effect of the savings and other measures which I have announced will be to reduce this year's likely public expenditure outturn by over £1 billion. They do not imply any ~~cuts~~ reductions in the total, as published in the February White Paper: rather they are designed to bring spending closer to the course laid down in my predecessor's White Paper.

8 I told the House on 29 June that, in order to maintain the right balance between public borrowing and interest rates, we intended to maintain firm control of public spending. I also made clear my determination to take action should our objectives be endangered. Our economic strategy has brought

about low inflation and a quickening recovery. We are determined to ensure that unplanned overspending does not deflect our course, and put the recovery at risk.

NORGROVE
27/2

FROM: D R NORGROVE
DATE: 27 MARCH 1984

1. MR BATTISHILL

2. CHANCELLOR OF THE EXCHEQUER

cc Sir Peter Middleton
Sir Terence Burns
Mr Cassell
Mr Evans
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar

YOUR APPEARANCE BEFORE THE TCSC TOMORROW

The briefing notes which were commissioned at your meeting this morning are now attached. Also included are the notes commissioned in Mr Peretz's minute of 26 March.

D R NORGROVE

INDEX TO BRIEFS

BRIEFS

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*Include material for the Treasury papers promised yesterday to the Committee

A

A.

Members' particular interests

Higgins	-	asset sales; over-funding;
Wainwright	-	infrastructure;
Mitchell	-	exchange rate policy; competitiveness and demise of manufacturing; unemployment;
Fisher	-	
Sedgemore	-	Friedman annihilation;
Beaumont-Dark	-	
Townend	-	public expenditure and especially capital;
Budgen	-	ditto;
Freeman	-	pensions industry;
Howell	-	poverty and unemployment traps; NHS; public sector manpower generally
Browne	-	

B

B.

Growth of GDP and North Sea Production

The following table shows the assumed growth rates of GDP including and excluding North Sea oil and gas production over the period of the MTFS.

	Percentage growth over year to:					Average growth from 1983-84 to 1988-89 (%)
	1984-85	1985-86	1986-87	1987-88	1988-89	
GDP	3	$2\frac{1}{2}$	2	2	2	$2\frac{1}{4}$
GDP excluding North Sea production	3	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{1}{2}$

The assumptions about North Sea production are set out in the press notice on "Government Revenues from the North Sea" released by the Treasury on 13th March 1984.

C

C.

Relative UK/US interest rates and public sector deficits

	US long rates	UK long rates	US deficit (% of GNP)*	UK deficit (% of GNP)**
1978	8.5	12.5	1.4	5.4
1979	9.3	13.0	0.7	4.8
1980	11.4	13.8	2.3	5.6
1981	13.7	14.7	2.1	3.4
1982	12.9	12.9	4.8	3.3
1983	11.3	10.8	6.1	3.3

* US Federal Budget Deficit

** PSBR (Financial Years)

As the UK public sector deficit has contracted and the US deficit widened, UK long term interest rates have fallen steadily relative to US rates; so that from being almost 50% higher than US rates in 1978, UK rates were marginally lower than US rates in 1983. They have fallen further relative to US rates in recent weeks.

RESTRICTED

D

BACKGROUND BRIEFING - Hendry's critique of Friedman

Interest is likely to be shown in Professor Hendry's critique (published by the Bank in December 1983), of Friedman and Schwartz's "Monetary Trends in US and UK 1867-1975", which some members of the opposition have seen as a demolition job on monetarism.

D.

LINE TO TAKE

Not for Government to intervene in dispute between academics about technical issues of econometrics. Always technical disputes between econometricians. Given state of the art, absurd to claim Government policies stand or fall by any particular piece of econometric research. Agree with Sam Brittan (FT 15.12.83):-

> "My remaining hair stands on end at the thought of policy being determined by rapidly shifting findings of econometricians. "

Bank made it clear that their publication of Hendry paper in no way meant Bank concurred with his views. Government policies rest on no one specific piece of work - what is clear is that our sound financial and monetary policies are enabling us to achieve non-inflationary growth.

E 1

OVER FUNDING AND MONEY MARKET ASSISTANCE

Factual/Points to make

(i) 1983-84 target period to date (12 months to mid-February 1984) under funding of £½bn.

/ But April 83 - Feb.1984, over funding of £1¾ bn. /

(ii) 1979/80 to 1982/83 under funding of £1.4 bn., compared with PSBR of £41bn.

- underfunding in 1979/80, 1980/81 and 1982/83
- overfunding in 1981/82. / MAYBE in 1983/84, but not yet finished. /

(ii) No simple relationship between overfunding and money market assistance (see background note). Other money market influences (eg. debt sales to banks, overseas, increase in note issue) have made the major contribution to money market shortages in recent years. Position has been eased since 1982 by switch of LA borrowing from banks to PWLB (which has no effect on PSBR, overfunding or £M3).

(iii) Objective, for the medium term, is to broadly fund the PSBR. But, as stated in Mansion House Speech "there may be occasions when funding ought to be higher or lower than PSBR to take account of private sector's demand for credit and to provide a measure of control if wider aggregates are growing excessively".

(iv) Relationship between private sector bank lending and £M3 depends on other counterparts, as well as overfunding.

- net non-deposit liabilities (faster growth depresses £M3, other things being equal)
- external influences

	£ billions 12 months to mid Feb. 1984
PSBR less debt sales to non-banks	+ 0.5
Sterling lending to private sector	+12.9
Externals	- 4.3
Net non-deposit liabilities	
change in £M3	+ 9.1

(v) Need to take action to restrain private sector borrowing depends on assessment of overall monetary situation. If appropriate, bank lending may be influenced by fiscal policy as well as changes in interest rates. Budget included measures to encourage companies to raise more finance outside banking system.

(vi) Selling public sector debt to non-banks reduces private sector liquidity; and reasonable to expect to pay something to achieve this. Always recognised that cost, while important, cannot be the overriding consideration (see Radcliffe Report). In short run, cheapest way to finance PSBR is to issue notes and coin (ie. non interest bearing liabilities); but this absurd policy would mean higher inflation and, in time, higher interest costs.

(vii) NLF surpluses are an accounting curiosity, with no monetary significance. They reflect the separation in the Bank of England between the Issue and Banking Departments. Whether the NLF runs down ways and means advances from the Issue Department, or deposits balances with the Banking Department, depends on size of Issue Department's balance sheet, and scale of its other assets (including unsold gilts) as well as scale of money market assistance. No real effect on monetary conditions.

Defensive

(i) Why is it right to overfund in short run, but not in the medium term?

Funding is very flexible short term instrument, and silly to neglect it. But MTFS designed to ensure that in medium term, PSBR will be consistent with monetary targets. So there should be no need to systematically over or under fund.

If pressed: Most instruments for restraining private sector borrowing take time to work. Funding can be useful interim response.

(ii) Overfunding puts pressure on long rates, relative to short rates. Surely this forces companies to borrow from banks, adding to the problem which overfunding was intended to offset?

If we aren't systematically overfunding this doesn't arise.
If pressed: No evidence for this. But it is a risk. Hence measures to encourage companies to make more use of long term markets, and low official reliance on longer end of market in funding over past 3 years.

(iii) Surely overfunding followed by action to relieve money market shortages means you are taking money out at the long-end and putting it back at short-end with no monetary benefit?

Relieving money market shortages by purchasing short-term assets from the banks does not affect the overall size of their balance sheet. The banks simply receive cash in return for eligible bills and the monetary benefit stemming from the take-up of gilts by the non-bank private sector remains. Lending to the private sector which would have taken place anyway (for a given level of interest rates) is being transferred from the commercial banks to the Bank of England.

(iv) Rising stock of money market assistance ("bill mountain") impedes proper operation of the money markets and should count as expenditure?

IMF statistical conventions suggest such liquidity operations should be "below the line" in the public sector accounts. They arise from monetary policy, whereas the PSBR is meant to measure fiscal policy. Net lending within the PSBR is related to specific Government objectives. Lending by the Issue Department is a normal central bank operation to provide liquidity to the private sector as a whole.

(v) Does overfunding affect MO?

No. Overfunding is a measure of the public sector's contribution to broad money.

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OVERFUNDING: DEFINITIONS (Background Note)

No single definition of "overfunding" appropriate in all circumstances.

(i) The conventional definition is sales of public sector debt to the UK non-bank private sector in excess of the PSBR.

Table below shows "overfunding" on this definition for financial years since 1979-80

	1979-80/ 1982-83	1979-80	1980-81	1981-82	1982-83
PSBR	41.1	9.9	13.2	8.8	9.2
Non-bank private sector purchases of public sector debt (-)	-39.7	- 9.2	-10.9	-11.3	- 8.3
OVER(-)/UNDERFUNDING(+)	+ 1.4	+ 0.7	+ 2.3	- 2.5	+ 0.9

- in 3 of the last four years there has been net underfunding; PSBR was underfunded by £1.4 bn over period as a whole.

- in the 12 months to mid-February 1984, PSBR was underfunded by £½ billion. £M3 was well within the range.

NOT FOR USE

The last 12 months are heavily influenced by massive underfunding at the end of 1982-83, ie. the beginning of the 1983-84 target period. The financial year 1983-84 is likely to show substantial overfunding (£1¼ bn, according to the post Budget forecast). But over the full 14 months of the 1983-84 target period, we may still be underfunded by say £½ bn. 7

(ii) An alternative definition of overfunding also includes the external finance of the public sector (ie. change in the f.c. reserves net of f.c. borrowing plus overseas take-up of public sector debt). This is a better measure of the public sector's net contribution to the growth in £M3; it shows the extent to which the PSBR has been financed in non-monetary ways, ie. other than by printing notes and coin, and borrowing from the monetary sector.

You hinted at this definition in your Mansion House Speech:-

> "The broad aim of funding policy will continue to be to fund the PSBR, by raising finance outside the banking system from the UK private sector, and from external flows, to which too little attention is often paid."

So far the TCSC have shown no interest in this definition. Including external flows increases the amount of overfunding in recent years, eg. on this definition the PSBR has been overfunded by £½bn. since February 1983.

(iii) If overfunding is measured by reference to the public sector's net contribution to PSL2, rather than £M3, sales of debt to non-banks would need to exclude building societies' take-up of gilts. This helps to reduce measured overfunding. We have never referred to this measure in public.

Overfunding and money market assistance

(i) Other things being equal, higher funding increases the volume of assistance needed to relieve money market shortages. But overfunding of PSBR only one amongst number of influences on money markets.

(ii) Overfunding is a measure of net public sector contribution to £M3. The change in money market assistance is more directly related to MO: it is the difference between the ex ante supply of cash to the market, resulting from central Government transactions, and the demand for cash (ie. MO). The CG's net position is given by:

CGBR plus change in fc reserves net of fc borrowing

less debt sales to all sectors

(iii) Negative money market influences not included in the conventional definition of overfunding are:-

- external finance of public sector
- debt sales to monetary sector
- notes and coin

These influences have been largely responsible for the scale of money market shortages in recent years.

(iv) Since 1982, money market position has been eased by switch of LA and PC borrowing from banks to CG (eg. PWLB facilities). This - raises the CGBR
- reduces money market shortages
- leaves PSBR, £M3 and overfunding unchanged.

Overfunding and Money Market Assistance

	1979-80/ 1982-83	12 months to mid-Feb. 84
Overfunding s.a. (conventional definition)	+ 1.4	+ 0.5
Other money market influences	- 9.3	- 1.2
of which:		
Other public sector contribution to net funding	-	+ 2.5
Notes and coin	- 3.0	- 0.7
Change in reserves etc	- 0.8	- 0.1
Sales of gilt to overseas and monetary sectors	- 6.8	- 1.4
Other	+ 1.3	- 1.5*
Total money market influences (- higher money market assistance)	- 7.9	- 0.7

Note* largely seasonal adjustment; money market assistance reflects unadjusted transactions; overfunding based on seasonally adjusted PSBR.

CURRENT PUBLIC POSITION

A number of public statements on overfunding by Treasury Ministers and officials are attached at Annex A. The last major statement you made was in the Mansion House Speech:-

> "As in the past there may be occasions when funding ought to be either higher or lower than the PSBR, in order to take account of the private sector's demand for credit, and to provide a measure of control if the wider aggregates are growing excessively rapidly. But over the medium term there should be no systematic tendency either to overfund or to underfund the borrowing requirement. "

Though your Budget Speech made no such explicit reference, it did say:-

> "As in the past, monetary conditions will be kept under control by an appropriate combination of funding and operations in the money market. "

ANNEX A £8

PUBLIC STATEMENTS ON FUNDING POLICY

	Source	Comment
(i)	1980 Green Paper on Monetary Control	Gilt-edged funding described as a basic weapon for medium term monetary control.
(ii)	Treasury memoranda to TCSC for 1980-81 Report on Monetary Policy	Incidental references, but very little emphasis on role of funding.
(iii)	1982 Budget Statement	Section devoted to monetary control and debt sales, but concentrating on funding mix rather than overall level.
(iv)	Bank memorandum to TCSC for report on 1982 Budget, on bank-lending, 'overfunding' and money market assistance	Submitted in response to query about rising stock of commercial bills. Statement of policy of 'overfunding' to contain growth in £M3.
(v)	Chancellor's written answer on arrangements governing borrowing by corporate and public sectors (June 1982)	"Funding.... an important instrument.... Sales of CG debt.... to the NBPS have been used to contain the growth of £M3...." "The appropriate level of funding has.... to be decided in the light of all the monetary indicators. That level may sometimes be higher and sometimes lower than the PSBR... "
(vi)	Debate on amendments to 1982 Finance Bill (12 July 1982)	/Economic Secretary/ "Sometimes - depending on such factors as the buoyancy of bank lending - we need to make debt sales to the NBPS greater than the PSBR...."
(vii)	Evidence to TCSC for report on 1982 Autumn Statement	/Chancellor/ "It is not the policy intention to overfund." "It is our intention to try and do such borrowing as is necessary to cover the Government's borrowing requirement." /Mr Middleton/ ".. the broad objective is to broadly fund the borrowing requirement, subject of course to the need of monetary policy.."

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	Source	Comment
(viii)	Evidence to TCSC for report on 1982 Autumn Statement	Memo by Bank on overfunding.
(ix)	TCSC 1982-83 Report on Autumn Statement	"The Committee believe that the question of overfunding is an important one requiring more detailed examination."
(x)	Evidence to Select Committee on Procedure (Finance)	Evidence from Mr Turnbull et al on amendment to National Loans Act: funding to control £M3.
(xi)	First report from the Select Committee on Procedure (Finance)	Expresses concern at the degree of freedom available to the Treasury to overfund.
(xii)	Mansion House Speech (20 October 1983)	"As in the past there may be occasions when funding ought to be either higher or lower than the PSBR, in order to take account of the private sector's demand for credit, and to provide a measure of control if the wider aggregates are growing excessively rapidly. But over the medium term there should be no systematic tendency either to overfund or to underfund the borrowing requirement."

Public Sector Balance Sheets

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Government should pay more attention to balance sheets.

Agree that balance sheets are useful in assessing the viability of fiscal policy over a period of years. Recession inevitably has harmful effect on public sector balance sheet. UK much more successful than other major OECD countries at holding down the real level of public sector debt during the world recession.

Changes in public sector balance sheets (published by the IFS) show fiscal policy is expansionary. IFS calculations are highly conjectural. Short run changes in these data can be highly volatile (because of fluctuations in asset prices) - not a good guide to fiscal conditions. Flow variables such as the PSBR more relevant to assessment of fiscal conditions.

F.

Fall in public sector net worth is worrying? IFS public sector net worth figures are a very incomplete measure and certainly exaggerate the present situation. They show accrued pension rights rising by £15-20 bn per year but take no account of future pension contributions. The forecast decline in the PSBR will anyway reduce the fall in public sector net worth.

Government should publish figures for public sector balance sheets
Figures for public sector financial assets and liabilities up to end 1981 were published in the February 1984 issue of Financial Statistics. Figures for public sector tangible assets up to 1975 were published in Economic Trends in November 1980; these figures are currently being updated for eventual publication.

G

BACKGROUND BRIEFING - "Private Sector Borrowing Requirement"

A letter in the FT on Monday 26 March from the Senior Economist at Grieveson Grant and Co., stockbrokers, claimed that the Private Sector Borrowing Requirement was the key determinant of monetary growth, and that the Authorities were wrong to imagine that control of the Public Sector Borrowing Requirement was sufficient to ensure monetary control.

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LINE TO TAKE

Criticisms of this nature fail to understand the details of the MTFS. Of course control of the Public SBR is necessary and that is the area of borrowing over which we have direct control. But it is by no means sufficient for controlling monetary growth. Fortunately, we have instruments with which we can control excessive sterling lending to the non-bank private sector. The most familiar instruments are:-

(a) short-term interest rates: these may have to rise as well as fall in the short-term if monetary control is to be maintained, leading to longer term reductions in inflation and interest rates;

(b) funding: this can be used to offset temporarily excessive sterling lending (see separate brief on overfunding).

POVERTY TRAP AND CHILD BENEFIT

H11

Child Benefit v tax allowances

Increases in tax allowances help 20m people, increases in Child Benefit only 6m.

2. Alleviation of poverty and unemployment traps an important object of policy, but not the only one. Also important simply to reduce tax on low incomes. It is wrong that tax should start on incomes of only 33.3% of average earnings (married threshold) or 21.1% (single threshold).

3. A simple increase in CB does not improve the poverty trap since it leaves the marginal rate of tax/benefit withdrawal unchanged. It does not improve the unemployment trap if the increase in child support applies equally to those at work and those unemployed. It helps the traps only by replacing means-tested benefits. Thus:

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a. The poverty trap by taking people out of FIS, which does reduce the marginal rate.

b. The unemployment trap by making an increase in the child addition to Supp Ben (which determines what the unemployed SB get) which is less than the increase in CB.

In both cases therefore, the poorest in work and the unemployed do not get the full benefit of the CB increase.

4. An increase in CB would also do nothing to improve the unemployment trap for single people or married people without children. Incentives for these groups are also important. Only 15% of the unemployed have children.

5. Many of those pressing for an increase in CB really want to relieve poverty. This is different from alleviating the poverty trap, or the unemployment trap.

Why has the Budget had such a small effect on numbers in the poverty trap?

[The poverty trap is assumed here to contain those who both pay tax at 30% and receive FIS, which has a withdrawal rate of 50%. These are people with children, since only they are eligible to receive FIS. Most of those taken out of tax by the Budget are juveniles and working wives.]

Even after the Budget, the tax threshold is as low as £61/week for a married man (and £38.50/week for a single person). These figures are well below even the level of earnings of most of those in the poverty trap. That is why the effect this year is comparatively small. But this year's increase is part of the process of getting the tax threshold up to a sensible level, a level from which further increases will have a big impact on the poverty trap. This is bound to take time. It means reversing processes which, as the Green Paper shows, have continued over many years.

[I]

EFFECTS OF THE BUDGET ON THE BANKS

Mr Beaumont-Dark may argue, as he did yesterday and last week when the Governor gave evidence, that the banks are being unduly hit by the Budget on two counts: composite rate and the CT package. As a result, the cost of borrowing to industry would increase, and the banks' capacity to lend would diminish. He also referred to the report in Saturday's Financial Times that Standard and Poor's have put Barclays, Midland and NatWest on to "credit watch" in the light of the Budget. (This was reported in the press over the weekend.

Composite Rate

The banks have claimed that they are liable to lose all non taxpayers' deposits, which they estimate at £3¾ billion. The cost of replacing this sum with wholesale money, they argue, would be equivalent to a ¼ per cent increase in lending rates across the board. I.

There are several answers to this:

(i) bank deposit rates are already very uncompetitive with the building societies - ie 5¼ per cent for 7 day deposits compared with the building society net rate of 7¼ per cent for 7 day money. The banks are already losing deposits to the building societies (£¾ billion in second half of 1983), but customer inertia and convenience - even with a slightly bigger difference in rates for non taxpayers - should enable the banks to hold on to a sizeable proportion of non taxpayers' deposits. And they certainly won't be lost all at once.

(ii) the banks are assuming that the building societies will not reduce their rates, or bid less strongly in the wholesale markets, if they gain deposits from the banks. They also assume

that National Savings rates would not be adjusted if there was a major flow in that direction. Both assumptions are unrealistic.

(iii) the banks will be able to offer a more competitive rate to taxpayers, who will now in effect pay the lower composite rate on interest received.

In short, without any change in the pattern of interest rates, the loss of deposits directly attributable to composite rate is likely to be very much less than £3¾ billion. If the banks bid back their lost deposits or raise money on the wholesale market, the cost will be reduced to the extent that other rates- ie National Savings, building societies and money market - are lower.

Before the Budget, we estimated that the increased cost of funds to the banks attributable to composite rate might be around £25 million. If spread across all forms of lending, the effect on lending rates would be of the order of one-thirtysecond to one-sixteenth per cent. It was on this basis that yesterday I told the Committee that the effect would be very small in relation to the recent ½ per cent cut in base rates. You might either stick to that line; or if the ¼ per cent estimate of the banks is quoted (which it was not yesterday), say that we estimate the effect will be considerably less than that.

CT package

Attached is a note from the Revenue explaining what scope will remain for sheltering tax by leasing, what extra provision may need to be made in the accounts for deferred tax and how this provision would affect profitability.

Line to take:

(i) The general effect on banks' profitability and future tax payments is extremely uncertain. Depends on:

- how much tax they have provided already (clearers have provided only 25%, some merchant banks 100%)

- on the pattern of existing business (whether for short or long lease)

- how much they respond to the package (ie by increasing their leasing in the short run and by going for longer leases)

- how much extra provision the banks feel they now have to make.

(ii) Because of these uncertainties, cannot comment on brokers' estimates of extra tax charge.

(iii) Bank of England have considered "worst case" scenario, where effect might be quite serious. But even in this worst case, as the Governor told the Committee last week, the effect on banks' capital ratios would not be such as to cause anxiety. [If pressed on the "worst case": it assumes that all the unprovided for deferred tax is provided for immediately, which is extremely unlikely.]

(iv) To the extent that banks may be constrained in their lending through reduced capital ratios, the Budget will reduce industry's need for bank finance - eg corporate finance package, effect of lower CT rate making equity finance more attractive.

(v) Banks have always said most of the benefits of leasing are passed on. So their post-tax profitability should not be much affected.

(vi) No reason why the banks shouldn't pay tax like everyone else.

(vii) Equipment Leasing Association, in post-budget statement, confident of "continued viability of leasing as a competitively priced form of fixed rate finance, particularly for medium to long term contracts .... leasing flourished in other countries without a generous system of accelerated depreciation".

NOTE BY THE REVENUE

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The effect of the capital allowance changes on the banks will depend on how far in future they are able to write leasing business which, even when the allowances are 25% per year, provides a "surplus" available to set off against other increase. This "surplus" will arise where an acceleration element still remains in the allowance - ie where the rate of 25% is more generous than strict depreciation. The more that the banks (through their leasing subsidiaries) can generate leasing business involving longer leases - 8 years or more - the greater will be the available spill-over against other income. It is impossible at this stage to say how successful the banks will be - but they are certainly aware that this is the direction in which their business will need to go.

Insofar as this future"surplus" falls short of the current levels of surplus, the effect will be to expose to tax at the new corporation tax rates (i) rental income on assets leased previously, for which the capital allowances have already been used up; and (ii) the banks' other (non-leasing) profits.

It is effect (i) above which explains the banks' need to increase their deferred tax provision. In the past they have provided for only about 25% of their deferred tax on their leasing, on the assumption that they would be able to set-off sufficient future allowances on new business, against the incoming rentals. At a 52% CT rate, the Clearers' under-provisioning amounted to just over £2 billion. The amount that they will now have to provide for in their accounts will no doubt depend on their projections of the amount of long-term leasing which they will be able to do, and on the CT rates which will apply to the incoming rentals. This must be a matter for the banks' own judgement.

To the extent that the banks are not able to find sufficient profitable leasing business in future, they will turn to other types of business - eg mortgage lending. This alternative business will be more profitable pre-tax than leasing - because leasing is done at interest rates which reflect the tax relief which the banks obtain through using the allowances to shelter other income. But

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post-tax, the results should be similar. So, if this total business remains broadly the same, we would expect an increase in their pre-tax profits and their tax; but post-tax profits at about the same level as now.

J 1

TREASURY AND CIVIL SERVICE SELECT COMMITTEE

LIFE ASSURANCE PREMIUM RELIEF

A 'Financial Times' editorial of 27 March suggests that LAPR "should have been phased out in a more considered way.... quarter by quarter or year by year".

It is surely self-evident that an approach to the change involving prior notification would not have been practicable or acceptable. To announce in advance that the relief would be withdrawn from some future date months ahead would clearly provoke a massive rush to take out new policies in the intervening period, greatly increasing the cost of the relief to the Exchequer and, indeed, putting at risk the very benefits that the change is designed to achieve. The fact is that LAPR is being withdrawn in a considered way. The relief is no longer available for new policies after 13 March. It remains for existing policies provided that these are not changed to enhance their benefits. Hence in effect the relief will be progressively phased out, as existing policies come to the end of their natural term.

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FROM: A J G ISAAC

THE BOARD ROOM
INLAND REVENUE
SOMERSET HOUSE

J2

27 March 1984

CHANCELLOR OF THE EXCHEQUER

LIFE ASSURANCE: TODAY'S FINANCIAL TIMES LEADER

1. Mr Lankester tells me that you would find it helpful, before you see the Treasury Committee tomorrow, to have a quick summary of the reasons why it was not possible to consult, before withdrawing LAPR for new policies in the Budget.

Could you have announced a decision to withdraw LAPR from a future date?

2. You saw what happened between 1 and 13 March, even in response to unconfirmed speculation. I leave you to imagine the scale of the disruption, and the scramble to get business signed up before the axe fell, if there had been an official Government announcement to terminate relief from a future date. A number of Life Offices themselves, though unhappy about the decision to withdraw LAPR, have made it clear that they understand the reason why it would not have been sensible to give advance notice in this way.

Could the relief have been phased out over a period of years, rather than terminated for new policies from Budget Day?

3. The fact that existing policies are protected means that LAPR will continue through into the second quarter of the next century. This is already a pretty generous transition. It would

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c Chief Secretary
Financial Secretary
Minister of State
Economic Secretary
Sir P Middleton
Mr Battishill
Mr Monger
Mr Lord
Sir Lawrence Airey
Mr Green
Mr Isaac
Mr O'Leary
Mr Pollard
Mr Munro
Mr Newstead
Mr J P O Lewis
PS/IR

have been going altogether too far, to give in addition relief for new policies on this basis. Again there would have been a scramble to sign new policies each year, before the rate of relief was due to fall or eventually end. And in the last resort, if you accept that LAPR is not justified on its merits, what justification is there for extending it to new contracts, even at a reduced rate?

Could there have been informal consultation before the Budget with the representative bodies, without a public announcement?

4. This would have been neither usual nor desirable on a matter as market sensitive as this. And it would have posed an intolerable conflict of interests for the officers of the representative bodies - who are themselves directors or senior managers of commercial life companies. If their companies had joined in the scramble to sign up business before 13 March this year, they would have been at risk of criticism for making profit out of privileged information. If they had abstained from the scramble, they would have lost out compared with their competitors.

Was there confusion about which contracts qualified before Budget Day and which did not?

5. The question is whether an insurance was or was not made on or before 13 March. That is a matter of general contract law - there are no special "Revenue rules" - and has been applied on many other occasions when there has been a tax change in the treatment of life assurance. I cannot believe that life assurance companies generally are in any doubt about the point of time at which they enter into a contract with their policy holders. However, I entirely understand that many companies would, as a matter of policy, wish LAPR to extend to proposals which had been submitted by Budget Day, even though the insurance was not made by Budget Day.

"Unseemly" reports about back-dating policies?

6. The Revenue are of course regularly monitoring claims for LAPR; and this will naturally be one of the matters which the audit teams will be looking at. If in any case evidence

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is found of fraudulent back-dating, it will in the normal way be for the Board to consider the appropriate action.

How much revenue was lost because of the scramble before 13 March?

7. Impossible to say at this stage. [If pressed. LAPR previously running at a rate of over £m700 a year. Some Offices quoted in papers as saying they have done a month's normal work in a fortnight. If that were correct - and representative - cost could be, say, £m30. But emphasise that is illustrative of one possible assumption - not an official estimate.]

Parallel with Fowler review on pensions?

8. Quite different - Fowler concerned with complex administrative rules: who should get pension, how much, and on what terms; and how the pension funds etc should operate. LAPR decision not concerned with anything to do with conditions of entitlement to life assurance policies or management of Life Offices. Straightforward policy decision, whether life assurance premiums should attract tax relief. (Note: the Chairman of the LOA is a member of the Fowler Committee).

A J G ISAAC

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FROM : P L O'LEARY

INLAND REVENUE
POLICY DIVISION
SOMERSET HOUSE

27 March 1984

CHANCELLOR

SELECT COMMITTEE BRIEFING : COMPOSITE RATE - BUILDING SOCIETIES : NON-RESIDENTS

1. Present Position

a. The Building Society composite rate, a negotiated rate under voluntary arrangements, applies to residents and non-residents alike. Since composite rate is non-repayable, investment by non-residents is very small.

b. We have hitherto resisted suggestions by the Building Societies that non-residents should be excluded on the general grounds that, the greater the number of exclusions, the less truly representative the composite rate becomes. There were also in the past reasons for not wanting to attract a lot of foreign money into this particular area.

K.

c. It has of course already been announced that the Bank composite rate scheme will not apply to non-resident depositors who provide their banks with a certificate of non-residency.

2. Legislative Plans

a. So far as Building Societies are concerned, only the bare minimum of alterations to the existing composite rate scheme (in ICTA 1970 Section 343) is being made in Finance Bill 1984 to provide for the determination of a composite rate which can apply alike to Building Societies and Banks.

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cc Chief Secretary
Financial Secretary
Economic Secretary
Minister of State
Mr Saunders
Mr Isaac
Mr Crawley
Mr Bush
Mr Munro
Mr Parker
Mr O'Leary

PSIIR.

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b. Further amendments to Section 343 will be needed for the Building Societies, but these are being left until Finance Bill 1985. They are likely to cover inter alia exemptions and dates and methods of payment. (The 'smoothing' proposals have been shelved pro tem but the BSA may well resubmit them.)

3. Consultation with the BSA

a. We have already seen the BSA and outlined the minimum (for them) legislation proposals for Finance Bill 1984 and what is likely to be planned for Finance Bill 1985.

b. They have indicated that they will, after considering the published Finance Bill proposals, let us have a series of suggestions for amendment to Section 343. They said that exemption from composite rate for non-residents is likely to be high on their shopping list.

c. We have indicated that we shall be happy to talk with them further and expect a series of consultations on the legislative proposals.

4. The Governor of the Bank of England, in evidence to the TCSC, has "accepted the logic" of the case for an exemption from the Building Societies composite rate for non-residents (see Annex).

PL

P L O'LEARY

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ANNEX

Composite Rate

Mr Beaumont-Dark recalled that the Wilson Committee had recommended the abolition of the composite rate altogether. He suggested that the banks held deposits from non-taxpayers worth £3-4 billion, which following the introduction of this system might be moved elsewhere and not be available for productive investment. The Governor doubted that the banks would lose all those deposits. He explained the need for the banks and building societies to compete on equal terms; for simplification of the tax system and for saving Inland Revenue staff. Mr Townend asked whether the exemption of the banks foreign depositors from the composite rate should be extended to the building societies. The Governor accepted the logic of this suggestion, since the exemption had been made to keep foreign deposits in the UK and to take account of tax arrangements overseas.

L

Abolition of stock relief runs contrary to inflation accounting?

To some extent this is a move away from current cost accounting back to historical cost accounting. This does not mean that the Government is opposed to the accountancy profession's attempt to find an acceptable successor to the current cost accounting standard SSAP 16. But what is right for accountancy practice is not always right for tax. And the accountancy profession have not agreed on a new standard. The Government believe that in this time of continuing low inflation it is better to abolish distorting reliefs, like stock relief, and use the revenue to reduce tax rates.

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Anti-forestalling provision

The phased reduction of initial capital allowances provides an incentive to bringing forward the date on which expenditure is incurred. [There is nothing objectionable in economic forestalling, where capital equipment is delivered earlier. But financial forestalling, where only payments are advanced, is more objectionable.] To restrict the scope for taking excessive advantage of this phased reduction, there will be a provision applying where there is an interval between the date of payment and the date when the contract must be fulfulled, and the rate of capital allowances has changed between the two dates. This provision will spread the amount evenly over the interval for the purpose of capital allowances.

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Bringing Investment Forward

The Committee asked officials on 26th March about the effects of the CT package on bringing forward investment. We undertook to provide an estimate of the scale of this. We therefore propose to send them the paper attached to Mr Byatt's minute of 23rd March with an additional section that would make the following points:

a. there is always an incentive to bring forward investment, even under the arrangements in existence before the Budget, because the earlier that allowances are taken into account in calculating tax liabilities the lower the net present value of tax payments;

b. however, during the transition to the new system, the incentive to bring forward investment is greater because companies can then claim higher first year allowances and higher rates of corporation tax to apply to any given allowances;

c. the scope for claiming higher allowances will be restricted by the provisions ~~in Part II of Schedule 12 of the Finance Bill~~ (described in paragraph 5 of the Inland Revenue press notice on capital allowances); [See box / M]

Finance Bill not yet published.

d. the gains which can be obtained from bringing investment forward have to be set against the cost in terms of additional interest (net of tax relief) of bringing the investment forward;

e. the potential net gain is greatest for companies which bring forward investment from the beginning of one tax year to the end of the previous tax year (eg from April 1985 to March 1985);

N.

f. but the benefits which can be obtained from advancing investment by more than a few months would need to be weighed against the risks involved;

g. it seems very doubtful, for example, that a company would want to advance a project by much more than a year in order to gain a few percentage points of the value of its investment;

N2

h. taking all these things into account, our estimate of the amount of investment that might be brought forward into 1984-85 is about 2 per cent of total company investment in 1985-86, and our estimate of the amount of investment that might be brought forward into 1985-86 is about $^1/_4$ per cent of investment in 1986-87.

COST OF CAPITAL

The cost of the capital required for any investment project is made up of the cost of raising finance plus the net effect of taxation (corporation tax and capital allowances).

2. The reduction in the Corporation Tax rate will raise retained earnings. Also the cost of new equity finance may fall as a result.

3. The company tax measures in the Budget further have the effect of changing the "wedge" - whether positive or negative - which the tax system puts between the return on a project and the yield to those who provide the finance. For given market interest rates the effect is to raise the minimum pre-tax return that firms require for investment in plant, machinery and industrial buildings; in other words the cost of capital can be said to be higher and the tax system will no longer be making some low return projects profitable. The opposite will in general occur with commercial buildings.

4. We shall be letting the Committee have a note on our estimates.

P1

ABBREVIATION OF ANNEX ON QUALITY OF INVESTMENT

(Health warning. Chancellor well aware of theoretical problems in this area. All numbers dicey in one way or another. They show reasonably consistent pattern of low capital productivity.)

1. Compared with other countries, our tax system treats investment favourably, especially investment in manufacturing. There are two independent studies, Kopits (IMF) and Fullerton and King.

2. A study by Kopits compared actual post-tax returns resulting from the purchase of investment equipment with the returns required under "neutral" systems. The results were:

Tax (+) on, or Subsidy (-) to, Investment
(Percentage of asset price)

	1973	1978
UK	- 2.4	- 4.4
Belgium	+ 0.6	+ 5.9
France	+ 1.1	+ 7.6
Germany	+ 5.9	+ 4.0
Italy	+ 12.8	+ 22.0
Japan	+ 1.4	+ 1.4
Netherlands	+ 5.0	+ 7.7
US	- 3.0	- 0.6

3. Fullerton and King compared the pre and post-tax returns for various hypothetical cases and then weighted them to give industry figures. Assuming a 10% pre-tax real return, they found the 1980 post-tax returns would be as follows:-

	UK	Germany	Sweden	US
Plant and machinery	13.7	5.5	10.0	8.2
Building	6.1	5.7	6.3	5.9
Difference	+ 7.6	- 0.2	+ 3.7	+ 2.3
	UK	Germany	Sweden	US
Manufacturing	11.0	5.2	7.3	4.7
Commerce	6.4	5.6	6.1	6.2
Difference	+ 4.6	- 0.4	+ 1.2	- 1.5

4. The UK capital stock per worker does not seem to be out of line with that elsewhere (US, Germany, France). But figures are subject to error, especially for whole economy and are perhaps best not quoted. Average age of capital probably higher in UK even if value comparable.

5. We do not make good use of our investment:-

(a) capital stock figures, despite their imperfections, indicate a low output:capital ratio compared with US, France and Germany;

(b) we have a high ICOR compared with other countries. Adjusted for changes in employment, the picture for manufacturing is:-

Manufacturing

	ICOR(L)	
	64-73	73-79
	1.9	13.3
	1.1	0.1
	0.9	0.9
	0.8	2.0
	1.2	2.5

(c) rates of return are low:-

NET RATES OF RETURN*

	Non-financial corporations			Manufacturing (per cent)		
	1968-71	1972-75	1976-80	1968-71	1972-75	1976-80
UK	9	6	6	11	8	6
Germany	-	-	-	23	17	16
France	14	13	9	-	-	-
USA	17	14	14	24	20	18

*average for years specified.

P3

6. Several micro economic studies (Pratten, Centre for Inter-firm Comparisons, and DTI for UK, and Marketing Science Institute for US) show no clear relationship between efficiency and investment at the company level. The relationship is certainly not positive. Other factors seem much more important in explaining company performance.

DEU

27 March 1984

(C) 1

TCSC: EXAMPLES OF POOR PRIVATE SECTOR PROJECTS

You asked me for a short note giving examples of poor private sector projects, preferably where there was no Government involvement.

2. You will recall that Inland Revenue (Mr McConnachie) submitted some examples of "bad investment" in their minute of 8 March to the Chancellor.

3. These were:

British Aluminium smelter (Invergordon)

Wiggins Teape pulp mill (Fort William)

Rootes cars (Linwood)

British Steel (Ravenscraig/Llanwen).

Ford cars (Halewood)

I believe one way or another Government were involved in all the underlying investment decisions.

4. To these one might add, on the same anecdotal basis as the above:

Courtaulds (textiles)

Duport (steel)

ICI (petrochemicals)

5. Inland Revenue recommended at the time that no use be made of individual names. This was endorsed by the Chancellor (Mr Kerr's minute of 9 March to Inland Revenue). With respect, we are

(2) 2

certain this decision was right. If individual names are mentioned, the companies concerned will certainly demand to know why. They would see any such reference as hostile. We do not have any evidence to show that the companies were relying on capital allowances to justify their decisions to any extent. And if they were, one could scarcely hold them responsible for being indifferent as to how a satisfactory return was achievable.

6. As is obvious, I recommend strongly against using names.

P R GORDON

R

Arrangements for Assessing Public Expenditure Priorities, eg Raising VAT Ceiling v Health Service

The general framework within which the government assesses priorities is the Public Expenditure Survey. This is a regular annual exercise, now just getting under way for 1984. It involves the assessment of the implications for each expenditure programme of increases or decreases in provision; and enables Ministers collectively to consider both the aggregate spending levels and the need for adjustments between programmes. The results, as the Committee knows, are regularly set out in the Autumn Statement and subsequent Public Expenditure White Paper. One refinement of the system this year is the establishment of more formal arrangements within the Survey - a sub-Committee of the Public Expenditure Survey Committee - for assessing the government's priorities and objectives in relation to European Community expenditure.

[If pressed] It is necessary from time to time to take expenditure decisions outside Survey framework. To the extent this involves extra spending within the financial year in progress, this falls within the scope of the new Reserve arrangements - which are designed to ensure the public expenditure planning total operates as a control total.

R.

MANPOWER NUMBERS

S1

1. Mr Ralph Howell may well base questions on public service manpower on the following figures, which were given to him in Parliamentary answers last month.

Table 1

	1979	*1980*	*1981*	*1982*	*1983*
National Health Service					
Numbers employed†‖ (thousands, 30 September)	1,171	1,202	1,237	1,250	1,240
Expenditure‡¶ (£ million, current and capital expenditure for financial year beginning 1 April)	10,675	13,600	15,308	16,679	17,574
Local government					
Numbers employed†‖ (thousands mid-year)	2,997	2,956	2,899	2,865	2,879
Expenditure‡¶ (£ million, current and capital expenditure for financial year beginning 1 April)	21,260	24,710	26,195	28,234	30,673
Civil Service					
Numbers employed†● (thousands, 1 July)	739	714	698	671	654
Expenditure‡■ (£ million, pay costs for financial year beginning 1 April)	3,763	4,672	4,972	5,203	5,279
Nationalised industries					
Numbers employed†‖ (thousands mid-year)	1,777	1,744	1,586	1,485	1,404
Expenditure	•	•	•	•	•
Total					
Numbers employed†	6,684	6,616	6,420	6,271	6,177
Expenditure	•	•	•	•	•

Notes

• Not available.

† Civil Service manpower totals exclude the staff of the Northern Ireland Civil Service, hence the figures given are in respect of Great Britain only. All other manpower figures shown are for the United Kingdom. All manpower numbers are expressed as headcounts, with part-time staff counted as whole units. Figures on the alternative whole-time equivalent basis (which is more commonly used for the NHS and the CS) are not readily available for all four sectors.

‡ Expenditure statistics for the years 1979-80, 1980-81 and 1981-82 are outturn figures. Totals for 1982-83 and 1983-84 represent estimated outturn and planned expenditure. All expenditure figures shown are in respect of Great Britain only. Pay costs for the Civil Service include the cost of the employers national insurance contribution, and exclude the cost of the Northern Ireland Civil Service.

‖ Central Statistical Office.

¶ The Government's Expenditure Plans 1983-84, Cmnd. 8789 (tables 2.8, 2.11, 2.15 and 2.16).

● Her Majesty's Treasury and Civil Service Department records.

■ Chief Secretary's Memorandum on the 1983-84 Estimates (table 2).

S.

S2

Table 2

	1960	1970	1979	1980	1981	1982	1983
CIVIL SERVICE (Great Britain)							
Numbers employed* (thousands 1 July)	652	716	739	714	698	671	654
Percentage of total population	1·3	1·3	1·4	1·3	1·3	1·2†	‡1·1
Percentage of total employed workforce	2·7	3·0	3·0	2·9	2·9	2·9	2·8
Total salaries† (£ million, for financial year beginning 1 April)	n/a	1.109	3.424	4.251	4.545	4.785	‖4.895
Percentage of UK gross domestic product (financial year basis)	n/a	2·1	1·7	1·8	1·8	1·7	n/a
LOCAL GOVERNMENT (United Kingdom)							
Numbers employed* (thousands, mid-year)	1.821	2.559	2.997	2.956	2.899	2.865	2.879
Percentage of total population	3·5	4·6	5·4	5·3	5·1	5·1	‡5·1
Percentage of total employed workforce	7·5	10·3	11·8	11·7	11·9	11·9	12·1
Total salaries† (£ million, on a calendar year basis)	n/a	2.945	12.305	15.329	17.615	18.809	n/a
Percentage of gross domestic product (calendar year basis)	n/a	5·7	6·3	6·7	7·0	6·8	n/a

Notes:

* Manpower statistics are given in headcount terms ie. part-time staff are counted as whole units. The Civil Service figures exclude those employed in the Northern Ireland Civil Service and the total population and labour force percentages for the Civil Service have been calculated on a Great Britain basis.

† Total salaries for the Civil Service are given for financial years and are in respect of Great Britain only. Local authority salaries are in respect of the United Kingdom and are given for calendar years.

‡ Estimated

‖ Supply Estimates 1983-84.

Sources

Central Statistical Office

Her Majesty's Treasury and Civil Service Department quarterly manpower returns

1983-84 Memorandum by the Chief Secretary to the Treasury on the Estimates

2. Other recent Parliamentary answers to Mr Howell are attached at Annex. (Not circulated: available if wanted. DRN. yme)

3. On local authority manpower, Mr King announced on 20 March that, for the third quarter running, the Joint Manpower Watch (December Survey) showed an increase in total manpower numbers in local government, further confirming the upward trend which started in September 1981. Manpower costs account on average for almost three-quarters of local government gross current expenditure.

S3

4. On National Health Service manpower, the government last year settled manpower targets with Regional Health Authorities, providing for a reduction of 4,800 staff (½ per cent) between March 1983 and March 1984. It is not expected that there will be such targets for 1984; rather, new arrangements have been introduced from 1984-85 whereby manpower control is to be the central feature of health authority short-term programmes and an integral part of overall planning. Authorities will be expected to ensure that manpower targets will be consistent with both the cash available and in-service objectives. Any unsatisfactory manpower plans will be rejected.

5. The NHS Management Inquiry (The Griffiths inquiry) on the effective use and management of manpower and related resources in the NHS reported in October, and its general thrust has been accepted by the government: all health authorities are required to carry out a substantial and sustained cost improvement programme, which will make services more efficient and release resources for improved services and new developments.

6. The government is also urging health authorities to contract out services to the private sector wherever it would be economical to do so (VAT relief is now available to facilitate this process).

FROM: D R NORGROVE
DATE: 27 MARCH 1984

NOTE FOR THE RECORD

cc Chancellor of the Exchequer
Sir Peter Middleton
Mr Bailey
Sir Terence Burns
Mr Cassell
Mr Monck
Mr Battishill
Mr Evans
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar
Mr Ridley

TCSC BUDGET ENQUIRY: HEARING ON MONDAY 26 MARCH

Messrs Battishill, Evans, Lankester, Monger, Odling-Smee and Scholar appeared before the Committee. The following is a summary of the main points.

Monetary targets

2. Two questions from Mr Higgins:

- the Quarterly Bulletin and the Green Paper on Monetary Control had both argued that cash was unlikely to be helpful as a monetary indicator; why the change of view? Mr Lankester replied in terms of the increasingly unsatisfactory nature of M1 as a measure of narrow money and the research which showed that MO was the best available alternative.

- If we expect greater use of equity and bond finance for companies as a result of the Budget measures, aren't the monetary ranges looser than envisaged at the time of the 1983 Budget? Mr Lankester replied by pointing to the uncertainty about the extent to which companies would switch their patterns of finance; too early to reach any such conclusion.

Fiscal policy

3. Mr Wainwright:

- Questions in various ways asking whether the PSBR is looser than first envisaged, particularly taking account of asset sales and VAT on imports? Mr Battishill and Mr Odling-Smee pointed to the fact that the PSBR is to

be £¾ billion lower than envisaged in the 1983 MTFS and argued that the important question is whether it can be financed without excessive pressure on interest rates. Our best assessment suggests that it is consistent with avoiding excessive pressure on interest rates and witnesses noted the fall in the base rate last week. Mr Odling-Smee also mentioned in an aside the possibility of some underlying increase in productivity.

- What measures have been taken to prevent the PSBR overshooting again? Mr Scholar pointed to the larger Reserve, the change in the arrangements for demand-determined expenditure, and the fact that no allowance was made for shortfall.

- Aren't real interest rates very high? Mr Odling-Smee pointed out they were no higher than at other periods in the past, excluding the 1970s. But clearly the prospect for investment would be improved if real interest rates were lower.

3. Mr Mitchell:

- Can't the increase in productivity be accounted for by closure of firms and plant? Mr Evans argued that there was evidence of companies increasing output from existing plant eg BL and Steel.

- Isn't the fiscal stance very contractionary? Hasn't the US managed to achieve growth through an increased Budget deficit without higher interest rates citing the increase in the Budget deficit in 1983 with no increase in interest rates? Mr Odling-Smee pointed out that the increase in the Budget deficit might well already have been discounted into interest rates before it actually occurred. There was no simple correlation between borrowing and interest rates as the Government had always recognised. But any increase in the PSBR if it was expected to be sustained would lead to an increase in interest rates.

Poverty and unemployment traps

4. Mr Howell:

- How much money would be needed to do away with the poverty and unemployment traps? Mr Monger: a great deal.

- Wouldn't less overmanning in local government and the public sector generally provide money to reduce the poverty and unemployment traps? Mr Scholar: yes.

- Mr Howell also asked about overshooting of public expenditure. Mr Scholar noted that the planning total was likely to be overshot in 1983-84 by about £1 billion, but it had been held in earlier years. [Mr Howell appeared to be thinking in terms of control in real terms rather than cash terms.]

5. Mr Fisher:

- How is the choice made between raising thresholds and raising child benefit? Mr Monger said this was a political judgement, but pointed to the numbers of families benefiting from increased thresholds as opposed to increased child benefit.
- Mr Fisher asked for figures of the number of people taken out of the poverty trap by raising child benefit or raising thresholds at a given cost.

The Budget and the Banks

Mr Beaumont-Dark

- The Budget was unhelpful to banks, increasing their tax liabilities by perhaps £1 billion. They are being clobbered. Isn't this going to make them less adventurous and less willing to support manufacturing companies, particularly those in difficulties as they have done in past years? Mr Lankester pointed to the difficulties of estimating the effects of the changes and endorsed the views of the Governor on the effect on the banks' capital ratios. The CT changes were in any case being brought in on wider grounds. There would be a change in the banks' cost of funds, but this was likely to be small (probably less than ½ per cent) and spread over a period. Mr Battishill quoted from the Equipment Leasing Association. Mr Beaumont-Dark then argued that a shift of deposits out of the banking system would make the monetary targets easier to achieve at the expense of manufacturing industry.

6. Mr Budgen, in a Socratic dialogue, argued that capital allowances had not been created as a tax shelter for the banks. The tax shelter was in any case to remain in place for two years or so. So the banks could have nothing to complain about. And output would be growing so industry would be stronger.

The corporation tax changes and investment

7. Mr Townend:

- What would be the effect of the changes on the cost of capital? After some discussion, Mr Townend asked for a note setting out the figures.

8. Mr Fisher:

- was unclear about the meaning of the Budget speech on how far the acceleration of investment was simply a matter of the phasing in of the changes and how far it was a consequence of the change in the structure. Mr Battishill explained that it was the former and the phasing was necessary to give time for companies to adjust.
- Would there be any benefit to employment during the transition? The changes would begin immediately to affect the longer term plans of companies and would build up.
- Wasn't the cost of capital going up for marginal projects, and the cost of labour going up with the increased demand for it, leaving aside the effect of the abolition of NIS? Witnesses agreed, on the assumptions stated.

Asset sales

9. Mr Freeman:

- The Government reply to the TCSC report on the Autumn Statement said that asset sales needed to be taken into account. How could this be reconciled with the July 1983 BP sale? The question was not pursued.
- What was the difference between gilt sales and asset sales? They would have some of the same effects.
- Why not treat asset sales as revenue? Present treatment is consistent with statistical treatment of other sectors and also suitable for the control system for public expenditure.

Growth assumptions

10. Mr Fisher:

- What was the evidence for 2¼ per cent GDP forecast shown in the Green Paper? Mr Odling-Smee said that this was an assumption based on historical experience.
- 3 per cent growth was forecast for this year so does not this mean a decline later? The figures are for the medium term, taking account of falling North Sea oil production.
- What was the implication of the assumptions for unemployment? No precise estimates have been made. But with, say, 1½ per cent growth in

productivity and growth in the labour force at under ½ per cent, there would be falling unemployment. The figures were certainly consistent with lower unemployment but that was not to say that it would be achieved. That would depend upon a number of factors. Mr Odling-Smee confirmed that the annual output path for the MTFS period shown in the table attached to Christopher Johnson's paper were broadly correct.

- Mr Fisher asked for the figures included in the Industry Act Forecast for acceleration of investment following the company tax changes.

- How will the hole 1985-86 left by the once-for-all effect of VAT on imports be financed? There was a rising tax base and figures in the MTFS took account of the once-for-all effect of VAT on imports.

11. Mr Higgins:

- The Industry Act Forecast showed a declining rate of growth of GDP between 1984 and the first half of 1985. Why was the Government taking no action to offset this planned fall in the rate of growth? Mr Evans noted that North Sea oil output was expected to decline a little. Action might not be feasible or desirable and anyway policy was set in a medium term context.

When the oil runs out

12. Mr Mitchell:

- What happens when the oil runs out? Will manufacturing be able to take up the slack? Mr Evans and others pointed to the probable reversal of part of the recent past pattern as oil output began to decline. Mr Battishill drew attention to the CBI evidence in which Sir James Cleminson had said that industry would respond if given the right climate and that the Budget had helped towards that. There was also the likely growth of IPD from abroad and better performance from the traded sector aside from manufacturing.

Other points

13. Mr Wainwright:

- Asked for a note on the 2¼ per cent growth assumption, disaggregated between oil and non-oil output.

14. Mr Higgins:

- Mentioned public expenditure as one of the areas the Committee want to discuss at the hearing on Wednesday.
- Asked how the Government appraised priorities between the EC budget and other areas of public spending. Mr Battishill replied that priorities were under constant discussion. Mr Higgins said they might want to return to this.

D R NORGROVE

PMP

CHANCELLOR OF THE EXCHEQUER



C/

2 things relevant to this afternoon's TCSC.

— note from Tony Battishill (immediately below) about some Austin Mitchell PQ's I've asked FST's office ~~to~~ not to answer those ~~to~~ not yet answered today (x1)

— note of EST's meeting with industrial insurers and friendly socs. yesterday, including (para 6) a line to take at TCSC if necessary.

PMP 28/3

FROM: A M W BATTISHILL
DATE: 28 March 1984

PRINCIPAL PRIVATE SECRETARY

cc PS/Financial Secretary
Sir P Middleton
Sir T Burns
Mr Monger
Mr Scholar
Mr Lankester
Mr Beighton - IR
Mr Walton - IR
Parliamentary Clerk

TCSC: MR AUSTIN MITCHELL'S QUESTIONS ABOUT COMPANY TAX CHANGES

Mr Mitchell has asked a series of Written Questions about the company tax changes, the overhang of allowances, stock relief, and so on. Defensive briefing was included with the material attached to my minute of 23 March which preceded the Treasury Committee's hearing with officials.

2. The Revenue have now drawn my attention to the fact that three of these Questions were answered on Tuesday. In case the Chancellor missed them, I attach the relevant Hansard extract. I also attach the suggested Answers and background material for the two remaining Questions. These were down for Answer on Monday; and I understand the draft Replies will be coming to Ministers for approval (probably by the Financial Secretary) later today. Even so, it must be doubtful whether the Answers would reach Mr Mitchell in time for this afternoon's hearing.

3. The earlier briefing provides plenty of material to draw on if Mr Mitchell should pursue the matters rasied in his Questions. However, there is one important amendment I suggest to that material. It affects the briefing, on the second page, dealing with the piece by Peter Kellner in the Observer Business News of 18 March about the IFS analysis of the effects of the corporate tax changes on manufacturing and service companies. I have agreed with the Inland Revenue that the second sentence (beginning "the illustrative examples" and ending "manufacturing") should be deleted, since it rather conflicts with the proposed line of reply to Mr Mitchell's Question. There is still plenty of material with which to rubbish the IFS approach.

A M W BATTISHILL

Sun Oil

Frank Field asked the Secretary of State for (1) when Sun Oil told him that it was placing the r for developing the Balmoral field with a foreign

Sun Oil gave him an undertaking to build 72 per its rig construction in the United Kingdom as well nitting itself to place 72 per cent. of work resulting e development of the Balmoral field with firms in ted Kingdom; and if he will make a statement; vhat steps he is taking to monitor the amount of un Oil places with firms in the United Kingdom g from its development of the Balmoral field; f he is satisfied with the negotiations Sun Oil has ad with his Department over its development of the al field; and if he will make a statement; he will publish the minutes of the meetings he has th Sun Oil over its development of the Balmoral

if he will publish in the *Official Report* the ondence he has had with Sun Oil over its ment of the Balmoral field.

Buchanan-Smith: At a meeting last September, l gave me an assurance that it would achieve an United Kingdom content of more than 70 per cent. Balmoral project although that did not relate to any contract. I was also told that it expected the production facility would be built in the United m.

Oil formally advised me on 15 March of its n to place the rig order with the Swedish company, ken Arendal.

n not satisfied that the company has given British full and fair opportunity to bid for the rig order. partment will monitor very carefully Sun Oil's nance in carrying out its plans over the entire ment of the Balmoral project.

NATIONAL FINANCE

"Europe 84"

Austin Mitchell asked the Chancellor of the uer what is the category of European Commission tion which covers the magazine entitled, *Europe* what provision has been made to meet the cost of olication in 1984, including all staff and overheads.

Ian Stewart: *Europe 84* is a publication of the ssion's London information office. The costs of this magazine fall on the Commission's ition budget — though it is not identified ely. It is also not possible to identify the staff and d costs involved in publishing the magazine from olished budget information on salary and other

Manufacturing Industry

Austin Mitchell asked the Chancellor of the uer what is his estimate of the carry-over of losses ous kinds for manufacturing industry into the financial year and what is his estimate of the cash buildings on the basis of (i) the current real rate of investment and (ii) the peak rate of investment since 1975 and the forecast rate of inflation.

Mr. Moore: The latest estimate of tax losses carried forward by manufacturing industry is some £10 billion. This estimate is extremely tentative.

The changes in capital allowances proposed by my right hon. Friend are, of course, accompanied by the abolition of stock relief and substantial reductions in corporation tax rates over the next few years. The precise net effect of these changes on tax liabilities in future years will depend not only upon the rate of investment but also on the level of profits, and on the extent of tax exhaustion.

Stock Relief

Mr. Austin Mitchell asked the Chancellor of the Exchequer whether he will publish in the *Official Report* a table showing the estimated further saving to the Exchequer in each of the next six years if all carry-over of stock relief for companies were to be abolished.

Mr. Moore: I regret that this information is not available.

Capital Allowances

Mr. Austin Mitchell asked the Chancellor of the Exchequer whether he will publish in the *Official Report* his estimate of the further saving to the Exchequer which would be achieved in each of the next five years by abolishing all forms of capital allowances including allowances carried over from 1983-84.

Mr. Moore: Estimates of the reduction in tax receipts in 1983-84 resulting from the existence of all forms of capital allowance were published in the public expenditure White Paper — Cmnd. 9143-II. The effect of the proposal in subsequent years would depend on the level of profits and investment in those years and on the extent of tax exhaustion.

Gas and Electricity (Price Increases)

Mr. Randall asked the Chancellor of the Exchequer if he will estimate the average effect of the proposed increases in gas and electricity prices on single and married retirement pensioners, expressed as a percentage of their state pensions.

Mr. Peter Rees: I regret that the information is not available in the form requested. However, it has been estimated that the recent 4·3 per cent. average increase in gas prices will mean an increase in an average household's gas bill of 20p per week, and that the recommended 2 per cent. increase in electricity prices in England and Wales will add 6p per week to an average bill.

The Government expect to spend around £380 million this year on supplementary benefit heating additions. Around 1·5 million pensioners will benefit from these additions, which are now worth more than ever before. I also refer the hon. Member to the written answer given by my hon. Friend the Minister for Social Security on 12 March 1984, at column *67*.

Income Tax

man with two child tax, but also tak contributions and ch will set out the info to the hon. Membe 1980, *Official Repor*

Mr. Moore: The table:

United Kingdom
Belgium
Denmark
France
Germany
Greece
Ireland
Italy
Luxembourg
Netherlands
USA
Japan

Notes:

1. Information on av the United States of A comparison has been m basis of estimates of the as at 31 December 1983. the published OECD fig broadly similar groups o may be at very diffe distributions in the diffe
2. Conversions to st rates prevailing on 30 D may not fully reflect diffe between the United King
3. All tax, social secu to the year 1983 or 198
4. In computing tax personal allowances an expenses, allowances contributions, and any o
5. The basic rate of c been taken into account i in the United States of A in Japan.
6. For the United K employee is contracted-i
7. The figures in br typical rates.

Mr. John David T Exchequer if he will European Economic resources value added

Mr. Lawson: The c raised. Raising it to 2 p things being equal, a estimated £8·45 billion

Mr. Pendry asked what was the respecti product represents [illegible]

NOT YET ANSWERED

WRITTEN

MONDAY 26 MARCH 1984

La - Great Grimsby

MR AUSTIN MITCHELL: To ask Mr Chancellor of the Eqchequer, whether he will publish in the Official Report a table showing the incidence of corporation tax on a typical large company in: (i) manufacturing, (ii) chain store retailing and (iii) financial services other than leasing assuming that investment and profits remain at their present level and that allowances carried forward from the current year are typical of the sector in question.

DRAFT REPLY

I regret that it is not possible to provide estimates for a typical company. The corporate sector is so diverse that, even within particular sectors, there is a great variation in factors affecting the incidence of corporation tax, including not only the level of profits and investment but also factors such as the type and size of assets and stocks, the rate of return on these assets, the way assets are financed, sources of income, the extent to which profits are distributed or retained, and company group relationships. All these, for both the current and previous years, contribute, in addition, to great diversity in the level of unused allowances.

/BACKGROUND NOTES

J W S WALTON
Statistics Division/IR
27 March 1984

MR AUSTIN MITCHELL

BACKGROUND NOTES

1. Mr Mitchell is a member of TCSC. (The Chancellor appears before the Committee on 28 March). Mr Mitchell has recently asked a number of questions on the CT package. Copies of the previous questions and draft replies are attached. The earlier questions were replied to on 26 March. A further question for answer on the same day seeks information on the size and impact of the overhang of tax losses.

2. Mr Mitchell may have picked up the Observer article on the IFS calculations for a typical manufacturing and service company (copy attached). We believe that the IFS computations are rather simplistic and selected to underscore their point. For example the two companies have very different rates of return, the source of finance is ignored and the computation of writing down allowances contains errors. It is also unrealistic that a manufacturing company which is now just avoiding tax would not have built up an overhang of tax losses during its recent less profitable past.

3. It does not seem desirable to engage in arguments on what are typical companies. The range is so diverse that any example might rebound. We are also mindful that any attempt to get a "real-looking" example might inadvertently breach our confidentiality rules.

JWSW 26/3

NOT YET ANSWERED

WRITTEN

MONDAY 26 MARCH 1984

La - Great Grimsby

MR AUSTIN MITCHELL: To ask Mr Chancellor of the Exchequer, what is the carry over of losses and allowances in the current financial year for the purposes of corporation tax; by how much these are likely to be reduced in the current year; and how much he expects to be extinguished against profit in each of the next four years over and above the new system of allowances.

DRAFT REPLY

The estimates of cumulative tax losses carried forward have been updated and revised; the total is now put at about £25 billion, excluding the public sector. This estimate remains extremely tentative.

I regret that it is not possible to estimate with sufficient reliability the extent of changes to this total in any one year. The measures proposed by my right hon Friend should contribute significantly towards reducing the overhang of losses: the precise extent of this reduction will depend on a number of factors, including the levels of profits and investment over the next four years.

/BACKGROUND NOTES

J W S WALTON
Statistics Division/IR
27 March 1984

MR AUSTIN MITCHELL

BACKGROUND NOTES

1. Mr Mitchell is a member of TCSC. (The Chancellor appears before the Committee on 28 March). Mr Mitchell has recently asked a number of questions on the overhang of tax losses and on the impact of the CT package. Copies of the previous questions and draft replies are attached. The earlier questions were replied to on 26 March. Mr Mitchell has also asked a further question on CT payments by "typical" companies.

2. It is not clear what Mr Mitchell is seeking to establish. He may be seeking figures on the sectoral effects of these measures, or, more probably, he may be trying to establish how much additional revenue might be obtained by curtailing or abolishing the overhang of tax losses.

3. The estimte of the overhang of tax losses has been revised down from the previous estimate of £35 billion. This latest estimate is based upon more comprehensive and more up to date sample assessment data. The previous estimate was given in reply to a PQ by Mr Jeff Rooker (La); this updated an even earlier estimate of "approaching £40 billion" given in reply to a PQ by Mr Mitchell last year.

4. The draft reply (attached) to one of Mr Mitchell's previous batch of questions quoted a figure of £10 billion for the overhang of losses in the manufacturing sector. This figure is consistent with total of £25 billion given in this draft reply.

5. Although our latest estimate of the overhang of tax losses is more reliably based than earlier ones, it remains extremely tentative and subject to substantial revisions. Year on year changes to the overhang are relatively small differences between large figures, and our estimating methods are such that we cannot reliably estimate the change in the overhang for the latest year, for which we must rely entirely upon projected rather than real data.

MR AUSTIN MITCHELL

6. Estimates of the future run-down of the overhang are even more difficult to obtain and are also subject to very large forecasting errors. Internal briefing notes for Treasury witnesses at the Treasury and Civil Service Committee gave some broad indications of our estimates of the reduction in the overhang over the MTFS period, based upon current forecasts of profits, investment, etc. These figures were not used, and are not suitable for publication. The estimates are that perhaps $\frac{2}{3}$ of the overhang of losses will be eliminated by the end of financial year 1987. In addition perhaps £2 billion or more of surplus ACT may have been absorbed, out of the estimated total of £5 billion.

JWSW 27/3

OBSERVER

The 'reform Budget': Why manufacturers (and lawyers and accountants) will lose out

PETER KELLNER reports on an exclusive Institute for Fiscal Studies analysis of the most radical company tax changes in years

MANUFACTURERS, far from benefiting from last week's Budget, face major increases in their tax bills. They will do worst in the run-up to the next general election, when the Treasury will have extra leeway for income tax cuts for individuals.

Service companies, which employ less capital but more labour, do well out of the changes in corporation tax and the abolition of the National Insurance surcharge. In the long run, the gains among service companies will offset the extra tax costs to manufacturers, but it will not be until the early 1990s that the company sector will reap the full fruits of Nigel Lawson's Budget changes.

The independent and widely respected Institute for Fiscal Studies has conducted a special examination for *The Observer* of what Lawson described in Tuesday's speech as 'a far-reaching reform of company taxation.' Apart from demonstrating the way manufacturing companies lose and service companies gain, the IFS finds that many self-employed people and unincorporated businesses, such as lawyers and accountants, will suffer. Their tax bills will rise, and their tax affairs will become more complex. 'For many people, the belief that Tuesday's Budget will make their life simpler is quite wrong,' says John Kay, the IFS director.

Company taxation is a daunting business, even for professionals; to the lay public it can seem as impenetrable as ancient Greek. To try to bring a measure of clarity to the most radical set of measures introduced in any recent budget, the IFS has invented two notional companies, 'Manufax' in manufacturing, and 'Servuco' in the service sector. (These are fictional names; no reference to any existing companies with similar names is intended.)

The table below shows how the Budget affects Manufax and Servuco. The figures are illustrative and have been simplified; in reality the two companies' accounts would include other bits and pieces, but these would not change the broad outcome. 'Before Lawson' shows how the two companies are faring in the financial year now ending. 'After Lawson' shows how the two companies would do, in identical trading conditions and making identical investment decisions, in 1986/87 — the first year in which the new tax regime mapped out by Lawson takes full effect.

Manufax's profits this year are £25 million. The company's costs include £1 million of National Insurance surcharge. The abolition of the surcharge will raise Manufax's profits to £26 million.

Tax allowances completely offset Manufax's profits in 1983-84, but when the new system comes into full effect, the allowances will offset only one-quarter of the company's profits, leaving £19.3 million to be taxed at the new corporation tax rate of 35 per cent.

This is how the tax allowance disappearing trick works:

- Manufax currently obtains 100 per cent allowance on its investment in plant and machinery. Since this investment totals £18 million, more than two-thirds of Manufax's profits are offset by this alone. In 1986/87, under the new system, the first year allowance on plant and machinery will be only 25 per cent—worth £4.5 million on investment of £18 million.
- Manufax currently obtains £3 million in stock relief. (Under existing rules stock relief is calculated by multiplying the stock level by the inflation rate. Manufax's stocks total £60 million; the inflation rate is 5 per cent; 5 per cent of £60 million is £3 million.) Lawson's Budget abolished stock relief, so after this year Manufax will no longer receive benefit from this.
- The 75 per cent special first-year allowance against the cost of industrial buildings will also go. From 1986/87, only an annual writing down allowance of 4 per cent will remain. Manufax spends £4 million a year on industrial buildings; Lawson's change will cost Manufax £3 million in lost allowances.
- The IFS has allowed for some increase in 'Other' allowances. This is a rag-bag category that includes such things as company cars. Under this heading we also include allowances generated by actions in previous years. In 1986/87, Manufax will have modest writing-down allowances from investments made between April 1984 and March 1986.

When all these factors are combined, total tax allowances fall from £25.2 million this year to £6.8 million in 1986/7.

The result is a trebling in Manufax's tax bill. At present it only pays advance corporation tax — that is, tax on dividends paid to shareholders. In Manufax's case, we assume dividends of £5 million. These generate £2.1 million of ACT. Under the new system, Manufax will have to pay corporation tax totalling £6.8 million — 35 per cent of its taxable profits of £19.3 million. Again, £2.1 million is accounted for by ACT. The other £4.7 million will be mainstream corporation tax. Like many real companies, Manufax today pays no mainstream tax at all; under the new system it will.

The £4.7 million increase in

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11

HOW SERVICE COMPANIES GAIN AND MANUFACTURERS LOSE

SERVUCO

Wage bill £200m ; stocks £40m ; inflation rate 5% ; investment this year £10m, of which plant and machinery £6m, industrial buildings £2m, other £2m ; dividend payments £14m.

	BEFORE LAWSON £m		AFTER LAWSON £m	
Nat Insurance Surcharge	2		—	
PROFITS	28		27	
TAX ALLOWANCES				
Plant & machinery	6		1.6	
Stock relief	2		—	
Industrial buildings	1.6	9.8	0.1	2.1
Other	0.2		0.5	
TAXABLE PROFITS	15.2		24.9	
CORPORATION TAX				
Advance Corp. Tax	6	9.3	6	8.7
Mainstream Corp. Tax	3.3		2.7	
EARNINGS AFTER TAX	15.7		18.3	
AFTER TAX EARNINGS UP £2.6 MILLION				

MANUFAX

Wage bill £100m ; stocks £80m ; inflation rate 5% ; investment this year £30m, of which plant and machinery £18m, buildings £4m, other £8m ; dividend payments £5m.

	BEFORE LAWSON £m		AFTER LAWSON £m	
Nat. Insurance Surcharge	1			
PROFITS	28		28	
TAX ALLOWANCES				
Plant & machinery	18		4.5	
Stock relief	3	25.2	—	6.7
Buildings	3.2		0.2	
Other	1		2	
TAXABLE PROFITS	0		19.3	
CORPORATION TAX				
Advance Corp. Tax	2.1	2.1	2.1	6.8
Mainstream Corp. Tax			4.7	
EARNINGS AFTER TAX	22.8		19.2	
AFTER TAX EARNINGS DOWN BY £3.7 MILLION				

Manufax's tax bill will be far greater than the £1 million saving in National Insurance payments. Overall, Manufax will be £3.7 million a year worse off — a reduction in post-tax earnings of 16 per cent.

More extreme—though less representative — examples could be constructed. Phillips & Drew, the stockbrokers, estimate that the after tax earnings of some companies could fall by up to 25 per cent. Large companies expected to suffer substantially include BICC, Blue Circle and Cable & Wireless — although others, such as GEC, will on balance, gain.

By 1986/7, many companies will also suffer from the fact that tax losses built up and carried forward from the past decade will have been used up.

On the other side of Lawson's coin, service companies which have a large wage bill, but invest less in plant and machinery, stand to gain. Their loss of tax allowances is more than offset by the abolition of the National Insurance surcharge and the reduction in the corporation tax rate to 35 per cent — as the example of Servuco shows:

- The abolition of the National Insurance surcharge adds £2 million to profits.
- Tax allowances fall from £9.8 million to £2.1 million. (The figures are different from Manufax, but the nature of the calculation is the same.) So taxable profits rise from £15.2 million to £24.9 million.
- But Servuco's tax bill will fall by £600,000. It currently pays even more than the 52 per cent corporation tax rate. This is because some of its ACT bill —on dividends of £14 million —cannot be offset against its total tax liability. If Servuco paid 52 per cent on its taxable profits, its tax bill would be £7.9 million. It will have to find another £1.4 million because it pays generous dividends.

Not only does the corporation tax rate fall to 35 per cent, Servuco will also be saved the burden of having to pay any 'extra' tax — its dividends come well inside the amount necessary to offset ACT fully against its total tax bill.

So Servuco will end up paying £600,000 less tax on profits £2 million higher than today; it will be £2.6 million better off —an increase of 17 per cent in its after tax earnings. Large employers in the service sector, like Marks & Spencer, stand to gain substantially in this way.

Self-employed people and unincorporated businesses, though, have the least to cheer in Lawson's 'far-reaching reform.' They lose many of their capital allowances — for example on a new office computer—but gain no benefit from the cut in the corporation tax rate to 35 per cent.

Some may find it worthwhile to turn into companies. But two groups who cannot are lawyers and accountants, whose rules prevent it.

It is, perhaps, one of the Budget's sweeter ironies that the two professional groups who might hope to generate the most business from the Chancellor's reforms will gain the least benefit from the profits they make.

Continued :- from OBSERVER.

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C

3 further notes for this afternoon's TCSC.

FROM: D R NORGROVE
DATE: 28 MARCH 1984

CHANCELLOR OF THE EXCHEQUER

cc Sir Peter Middleton
Sir Terence Burns
Mr Battishill
Mr Cassell
Mr Evans
Mr Lankester
Mr Monger
Mr Odling-Smee
Mr Scholar

YOUR APPEARANCE BEFORE THE TCSC TODAY

A few points for this afternoon.

2. I have heard from one of the Clerks that Mr Higgins intends to raise with you this afternoon what exactly is meant by revenue determining expenditure, and he may well kick off the hearing with that. The question could I suppose lead in several directions, including accusations that in recent years the Government has failed to achieve its objective on this (rising tax burden etc), to Green Budgets, to the structure of the Green Paper and whether it is right to give such absolute priority to reducing the tax burden. These are all familiar questions.

3. The briefing circulated last night did not include the Inland Revenue press release on the question when an insurance is made, and I attach a copy for those attending the hearing this afternoon.

4. Mr Peretz has questioned whether (h) in Brief N goes too far in giving figures about the size of investment brought forward as a result of the Budget measures. The suggested line gives the effect in terms of percentages of total company investment. That seemed to be defensible and unlikely to lead to irresistible pressure to give more details of the figures. But if you preferred it would be possible to take an even less forthcoming line, possibly as follows:

> "As Mr Evans explained to the Committee on Monday, the forecast of investment growth in 1984 has increased from 4 per cent at the time of the Autumn Statement to 6½ per cent at the time of the Budget. This is partly a result of the bringing forward of investment and partly the result simply of a revised assessment of the prospects. [If pressed: about half and half.]"

This reconciles with the figures in Brief N once allowance is made for the difference between financial years and calendar years and the fact that Brief N discusses company investment whereas the statement above relates to total investment.

5. You may find it helpful to have a comparison of US and UK short rates to go with the comparison of long rates set out in Brief C. This is attached.

D R NORGROVE

INLAND REVENUE
Press Release

INLAND REVENUE PRESS OFFICE, SOMERSET HOUSE, STRAND, LONDON WC2R 1LB
PHONE: 01–438 6692 OR 6706

[3x] 15 March 1984

LIFE ASSURANCE PREMIUM RELIEF: INSURANCES MADE ON OR BEFORE BUDGET DAY

In response to enquiries, the Inland Revenue have been authorised to make a further statement clarifying a detailed aspect of the Chancellor of the Exchequer's announcement in his Budget Statement that life assurance premium relief is to be withdrawn from life assurance policies in respect of insurances made after midnight on 13 March 1984.

The question of when an insurance is made is a matter of contract law and the Inland Revenue's understanding is that an insurance is not legally made until the insurer has accepted an offer from an individual and notified him or her to that effect, whether by a letter of acceptance or the formal issue of the policy. Provided that such notification was posted before midnight on 13 March, the contract in question will normally be regarded as made before the deadline and life assurance premium relief will therefore be available.

NOTE FOR EDITORS

See Inland Revenue press release 'Life Assurance Premium Relief' issued on 13 March 1984.

This further announcement is in response to questions which have been asked from some quarters about the point at which an insurance contract is legally regarded as made.

Supplement to brief C: Relative UK and US interest rates

	US 3 month CDs	UK 3 month inter-bank
	Annual averages %	
1978	8.2	9.2
1979	11.2	13.7
1980	13.1	16.7
1981	15.8	13.9
1982	12.2	12.3
1983	9.1	10.1
Today (28/3/84)	10.8*	8.9

* 3 month Eurodollars

Government Economic Service Working Paper No. 66
(Treasury Working Paper No. 28)

The Demand for Non Interest Bearing Money in the United Kingdom

by

R. B. Johnston

H M Treasury
Parliament Street
London SW1P 3AG

February 1984

THE DEMAND FOR NON INTEREST BEARING MONEY IN THE UNITED KINGDOM

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I. INTRODUCTION AND OUTLINE OF THE PAPER*

1. Earlier work in the Treasury has concentrated on the determination of financial wealth, the demand for broad money and, to a lesser extent, on the demand for M1.[1] No previous published Treasury work has examined the very narrow, non interest bearing, monetary aggregates.

2. In the UK the main measure of money held for transactions purposes has been M1, which includes the non-bank private sector's holdings of non interest bearing (nib) money - namely holdings of currency and nib sight deposits at banks - together with holdings of interest bearing sight deposits at banks. Until recently interest bearing sight deposits had been a very small proportion of M1, but by the end of 1983 they accounted for 27 per cent of total M1. Measures of broad money, such as £M3, include interest bearing time deposits as well.[2] It has long been recognised that because they contain a significant proportion of wholesale interest bearing assets, measures of broad money may not be a suitable measure of transaction balances. Many of their components will be held for precautionary purposes or as a store of value. As a result of the sharp rise in interest bearing sight deposits, many of which are wholesale in nature, the same point applies increasingly to M1, albeit as yet with less force than it does to broad measures. The distinction between the roles of broad money and M1 has, therefore, become less distinct. At the same time there has been a growth of highly liquid interest bearing deposits with building societies which can be readily withdrawn and used for transaction purposes. Many transaction balances are therefore not only interest bearing, but outside the monetary sector.

3. The increasing inadequacy of M1 as a measure of transaction balances has been recognised for some time. A new monetary aggregate, M2, has been collected since November 1981 and estimates were first published in June 1982. M2 includes notes and coin, non interest bearing sight deposits, other deposits on which cheques can be drawn, and "retail" deposits[3] with a residual maturity of less than one month. The deposits included

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*I am grateful to Robert Laslett and Alistair Milne for research assistance. An earlier version of this paper was given to the Treasury's Academic Panel. The comments made by David Hendry, and Peter Sedgwick have been particularly valuable. The author, however, is solely responsible for the views expressed here, which do not necessarily represent those of H.M. Treasury.

(1) Grice, Bennett and Cumming (1981), Bennett (1982).

(2) All monetary components refer to holdings by the non-bank private sector except that (a) currency holdings of all non-banking sectors are included (see paragraph 54) and (b) public sector deposits are included in £M3

(3) Defined as deposits of less than £100,000

are with building societies as well as banks. The run of available data on M2, which begins in November 1981, is too short for useful econometric work.

4. About two thirds of M2 balances bear interest and these interest bearing balances - like interest bearing M1 - can perform a precautionary role. Notes and coins together with non interest bearing sight deposits are distinguished from other financial assets in that they are both used as a means of payment and bear no rate of interest. The dominant reason for holding cash and non interest bearing sight deposits is to facilitate the direct purchase of goods and services, ie to facilitate transactions in the near future. Even these very narrow monetary aggregates may, however, include a precautionary element as a result of uncertainty as to the timing and amounts of receipts and payments. It is unlikely that this precautionary element is on average a significant proportion of non interest bearing money.

5. The present paper examines the demand for these non interest bearing forms of money. The monetary aggregates examined are

- notes and coin in circulation outside the monetary sector and the wide monetary base, MO, which is predominantly made up of notes and coin in circulation outside the Bank of England;
- non interest bearing (nib) sight deposits;

and - non interest bearing (nib) M1, which is the sum of notes and coin held outside the monetary sector and nib sight deposits.

Data on the split between interest bearing and non interest bearing M1 is available only from 1975. The present research has employed monthly data, although this has required the interpolation of some of the data for the explanatory variables which are only recorded quarterly or in some cases annually.

6. The demand for the narrowest, non interest bearing, monetary aggregates has been affected by financial innovation. Techniques of personal sector cash management have undergone rapid changes in recent years associated with the increased proportion of the population holding bank and building society accounts and technological innovations in the means of payment. These may have enabled the ratio of all transaction balances (including interest-bearing balances) to transactions to fall. Such innovations have almost certainly tended to reduce average holdings of notes and coin outside the monetary sector and nib sight deposits, but they may have at the same time raised their interest sensitivity. It is essential therefore to make explicit allowance for the effects of financial innovation when estimating equations for the demand for non interest bearing money.

7. The paper is organised as follows:

section II reviews the literature on money demand equations in the UK and the US;

section III examines the sources of financial innovations and their possible behavioural implications for the demand for non interest bearing aggregates;

section IV considers the specification of the transactions demand for money;

section V discusses the data and preliminaries to the empirical estimation. The general econometric research procedure followed is the general to specific technique which has been made familiar by Davidson et al (1978), Hendry and Mizon (1978) and Hendry (1979);

section VI reports the detailed results for the demand equations for notes and coin and M0;

section VII reports the results for nib sight deposits and nib M1.

section VIII provides a summary of the main results.

II. EARLIER STUDIES OF THE DEMAND FOR MONEY IN THE UK AND US

The demand for broad money in the UK

8. Estimation of equations for the demand for broad money in the UK have been largely concerned with M_3, defined as currency and all resident deposits with UK banks, and $£M_3$ which equals M_3 less residents' holdings of foreign currency deposits at UK banks[1]. The initial studies in the early 1970s by Goodhart and Crockett (1970) and Price (1972) derived apparently good relationships for the broad aggregates. However, these equations exhibited a marked structural break when the data used in estimation was extended to cover the period following the introduction of Competition and Credit Control in September 1971 (Hacche 1974, Artis and Lewis 1974 and 1976). The subsequent econometric attempts to interpret the structural break led to the investigation of:

(a) the role of an "own" rate on money in equations explaining the demand for interest bearing forms of money (Hacche 1974 and Smith 1978). Although there is general agreement about the importance of "own" rates on money on broad money demand, subsequent attempts to extend the broad money demand equations into the 1970s frequently produced dynamically unstable results, in the sense that the sum of the coefficients on the lagged dependent variables was

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[1] For a full definition of the various monetary aggregates see "Financial Statistics Explanatory Handbook", Central Statistical Office, (April 1983).

often close to or greater than unity. Grice and Bennett (1981) formulated the demand for broad money within a general portfolio model framework and emphasised the importance of gross financial wealth as an explanatory variable of broad money holdings. Their work suggested that it might still be possible to find an effect from the level of interest rates in the broad money demand equation in the short run. However, their equation has not subsequently proved stable and the results are sensitive to the measure of financial wealth used in the equation. The £M3 equation on the current Treasury model does not have an absolute interest rate effect. The importance of an "own" rate is not particularly relevant when estimating the demand for non interest bearing forms of money; however, an "own" rate should have become increasingly important in an M1 equation with the growth of interest bearing sight deposits (see paragraphs 18-22 below);

and (b) the possibility that shocks to the supply of broad money which could push money holders off their short-run money demand functions and introduce some disequilibrium into the broad money demand equation (Artis and Lewis, 1974 and 76, Coghlan, 1979, Davidson and Keil, 1981, Goodhart, 1982, and Johnston, 1984).

9. It is possible that even the very narrow, non interest bearing, aggregates would be affected by supply side shocks, e.g. from the introduction of new denominations of bank notes (see Annex 1). But since the costs of adjusting a disequilibrium in these aggregates, by moving into interest earning assets, is low, any disequilibrium would be expected to be relatively temporary. Non interest bearing forms of money are unlikely to be held as a major buffer stock asset in the economy.

The demand for narrow money in the UK

10. It has been assumed that narrow money comprises balances held predominantly or exclusively for transaction purposes. Traditionally thse balances were identified with total M1, which consists of notes and coin in circulation outside the monetary sector plus non-bank private sector holdings of sterling sight deposits (whether interest bearing or not) at UK banks, and the overwhelmining majority of studies on the transactions demand for money have been concerned with this aggregate. There appears to have been only one published study examining the demand for notes and coin held outside the monetary sector (Bank of England, 1982) and no previous published work on the demand for M0, nib sight deposits and nib M1.

11. The evidence about the structural instability of the short-run demand for M1 is less clear cut than that for the short-run demand for broad money. Hacche (1974) found that the M1 equation continued to perform fairly satisfactorily up to 1973, although Artis and Lewis

(1974 and 76) reported that the M1 equation, like the £M3 equation, had broken down. Coghlan (1978) and Hendry (1979) report evidence for the relative stability of the M1 relationship common to both the 1960s and 1970s. But, in updating Coghlan's equation, Artis and Lewis (1981) state that although the estimated equation has similar long-run coefficients to Coghlan's, the short-run properties of the equation are unstable and the equation fails to predict subsequent movements in M1. Hendry (1979) notes that rejecting an equation on a test of forecasting accuracy implies either that it has experienced a real structural break or that it is mis-specified. There are some reasons for believing that there may have been a structural shift in the demand for M1 in recent years (section III).

12 The only published study on the demand for monetary aggregates narrower than M1 was completed in 1982 by the Bank of England on the holdings of notes and coin in circulation outside the monetary sector. This study found that equations estimated up to 1979 systematically overpredicted the growth of notes and coin in subsequent years. Part of the overprediction was removed by the inclusion of an unemployment term, to proxy a decline in the workforce receiving weekly wage payments. However, the unemployment term may be proxying some other cyclical effect or some structural change in the demand for notes and coin in recent years when unemployment has been higher. Moreover, the coefficient on the employment variable seems implausibly large: the coefficient in the unrestricted equation for the whole sample period implies that a one percentage point rise in the unemployment rate reduces the demand for cash by 2.6 per cent in the long-run. The more general implication of the argument in the Bank article is that the demand for note and coin has fallen below forecast in recent years because of innovations in personal and company sector cash management techniques (see section III). But this hypothesis was not pursued in the Bank's empirical analysis.

The demand for narrow money in the US

13. In the US, initial work on the demand for narrow money in the 1960s and early 1970s gave promising results with well defined coefficients on interest rates and transactions (see, for example, Goldfeld 1973). But a few years later Eisner, Johnson and Paulus (1976) reported that the previously estimated, and assumed stable, M1 equations tended systematically to overpredict the subsequent growth in narrow money by large amounts. An extensive search, by a number of investigators, and a proliferation of ideas followed in an attempt to explain the apparent breakdown in the M1 equation.

14. Goldfeld (1976) suggested the importance of "ratchet effects" in the demand for money associated with the previous highest level of income and interest rates; Hamburger (1977) argued that the short-term interest rates in the demand equation should be replaced by the long-term rate and that the dividend price ratio on common stocks be included; and Johnston (1977) examined the effect of including a distributed lag measure of transactions

rather than the actual level. All of these studies reported that their selected respecifications removed, to a good extent, the apparent breakdown in the M1 equation. But inspite of, or perhaps because of, these numerous explanations the suspicion remained that there had been a more fundamental breakdown in the US demand for the narrow money stock.

15. In 1979 the Federal Reserve Board (Federal Reserve Bulletin, January 1979) published its work with the conclusion that "regulatory changes and financial innovations have fundamentally altered the character of the public's monetary assets". In particular, the ability to draw cheques on interest bearing savings and deposit accounts made these deposits much more likely to be held for transactions related purposes. The demand for non interest earning demand deposits included in M1 had been reduced by the shift into the more attractive interest bearing savings accounts and this could explain the structural breakdown in the M1 equations. The M1 monetary aggregate could therefore no longer be treated as a satisfactory measure of transactions money.

16. The approach adopted by the Federal Reserve Board to deal with this problem was to redefine its narrow monetary aggregates to include chequable deposits at all depository institutions, whether interest bearing or not, within a new aggregate, M1B. The rationale is to combine similar kinds of financial assets within the one monetary definition.

III. FINANCIAL INNOVATION AND THE BEHAVIOUR OF UK NARROW MONETARY AGGREGATES

17. The narrow monetary aggregates in the United Kingdom have been influenced also by structural changes in the financial system.

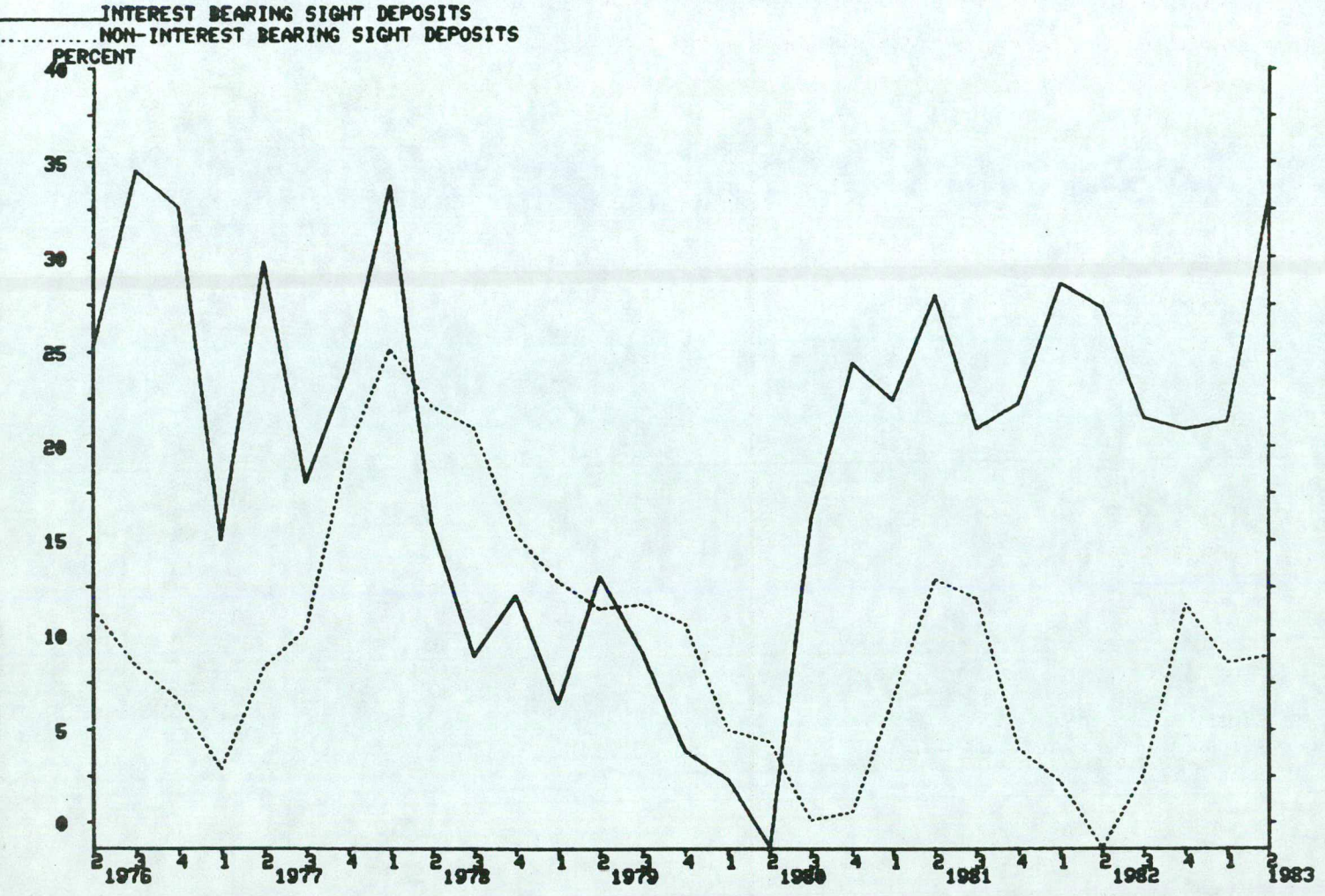
Interest bearing sight deposits

18. Interest bearing sight deposits have been growing much more rapidly than non interest bearing sight deposits in recent years (chart 1) and in relation to total M1, interest bearing holdings now amount to an increasingly significant proportion of the total (11 per cent in May 1975 compared with nearly 27 per cent in December 1983; about 5 percentage points of this increase reflected a statistical break when there was a shift from collecting data on the basis of the banking to the monetary sector in November 1981).

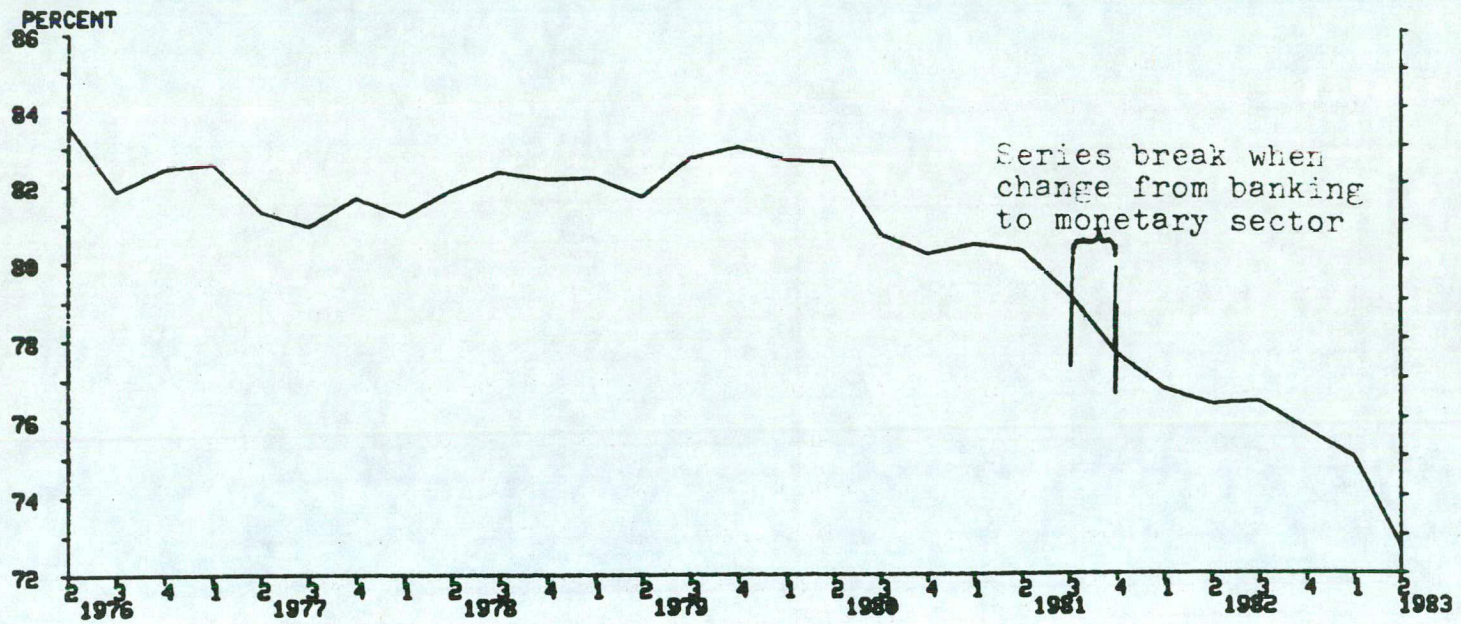
19. The vast bulk of interest bearing (ib) sight deposits are thought to be wholesale money. To the extent that the growth in wholesale deposits reflects the bidding for new funds by the banking system to support an expansion in their assets, the increase in ib sight deposits will most likely be associated with a shift of new funds into M1, which will tend to raise the overall growth of M1. Part of the growth of wholesale interest bearing sight deposits

CHART 1

PANEL A: 12 MONTH GROWTH IN THE INTEREST BEARING AND NON INTEREST BEARING SIGHT DEPOSITS



PANEL B: NON INTEREST BEARING M1 AS A PROPORTION OF TOTAL M1

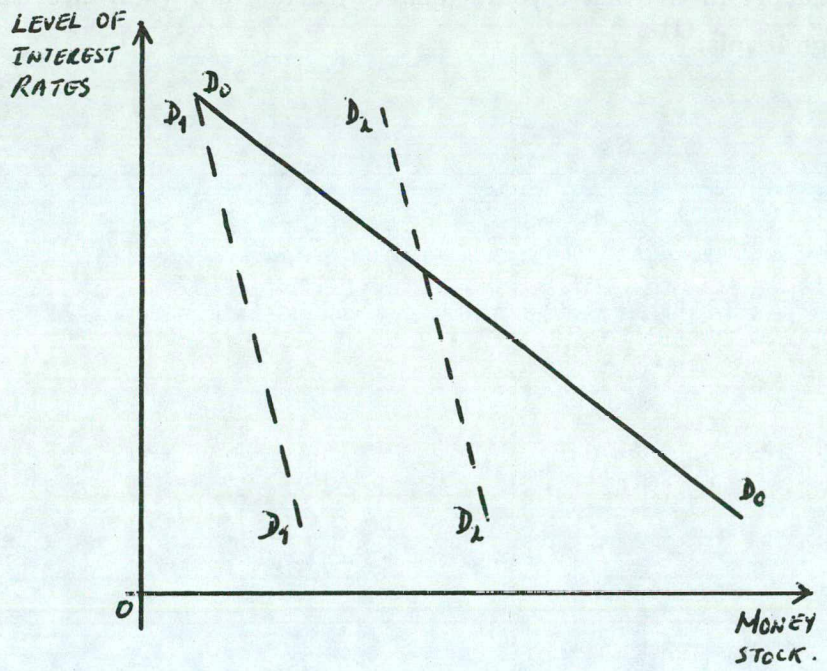


reflects also a shift of funds by companies out of nib sight deposits and more illiquid time deposits as firms take advantage of better cash management schemes.

20. There has also been a growth of retail interest earning sight deposit accounts which has encouraged the personal sector to economise on holdings of nib sight deposits and also to shift funds into interest bearing sight deposits out of less liquid time deposits and savings accounts. To the extent that the growth of interest being sight deposits reflects a shift of funds within M1, this will not initially distort the growth of total M1. However, the shift to interest bearing from non interest bearing balances within M1 raises the "own" rate on M1, and so makes the aggregate less sensitive to the absolute level of interest rates.

21. The effect of the growth of ib sight deposits on total M1 is illustrated in chart 2. The initial demand curve for M1 is described by the line D_oD_o. The rise in the "own" rate on M1, associated with an increasing proportion of M1 being held in interest bearing accounts, causes the total demand schedule to become less sensitive to absolute interest rate movements. The demand schedule therefore tilts to D_1D_1 from D_oD_o. But, the higher interest rates on sight deposits also attracts <u>new</u> funds into M1, from other assets and shifts the demand schedule outwards from D_1D_1 to D_2D_2. Therefore, during the period of structural change, movements in total M1 will be influenced partly by shifts in the demand schedule and partly by movements in the schedule because of a fall in the interest sensitivity of the aggregate. The overall effect of a change in interest rates on the demand for M1 is indeterminant.

Chart 2



22. The structural effects of the growth of interest bearing sight deposits are not of course confined to total M1. To the extent that new funds have been attracted into bank deposits out of other assets, the growth of £M3 will have also been faster; a proportion of the growth of ib sight deposits will of course reflect a shift between deposits within £M3 which would not affect the total growth in this aggregate. When funds are drawn out of nib into interest bearing sight deposits, the growth of nib sight deposits will be depressed. The structural effects raise potential problems for the estimation of demand equations for all the monetary aggregates. The effects are probably greatest for nib and ib sight deposits, following by total M1, then the broader aggregates and notes and coin.

Cash management

23. Some 90 per cent of notes and coin outside the monetary sector is held by the personal sector. Institutional or technological innovations which affect personal sector behaviour could have a major impact on total cash holdings. Historically cash has been the predominant payments instrument in the economy and the largest proportion of consumer payments continue to be made in cash (table 1). However, in recent years, with the increasing use of bank current accounts and technological innovations in the payments mechanism, a number of other payments instruments have become more important. Further, there has been a substantial shift in personal sector savings behaviour towards more liquid deposit accounts especially with building societies. By offering attractive interest rates and making wealth more accessible, the increasing use of such deposit accounts may encourage the personal sector to economise on holdings of notes and coin. The ratios of cash holdings to consumer payments and personal disposable income, which had been declining, fell quite sharply in the last 5 years (chart 3) at a time when interest rates have been at historically high levels.[1]

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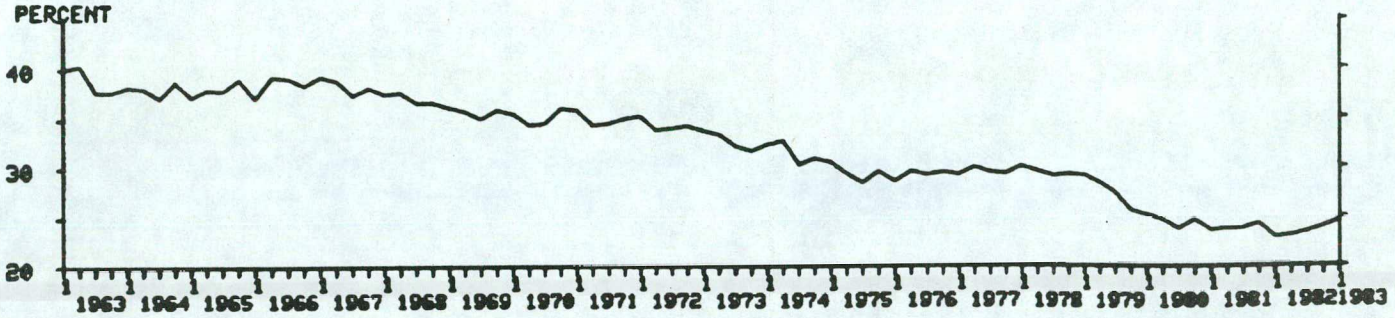
[1] Another explanation for the slower growth of cash is the decline in the "black economy". However, no reliable data are available to test this hypothesis.

CHART 3

PANEL A: THE RATIO OF CASH TO PERSONAL DISPOSABLE INCOME



PANEL B: THE RATIO OF CASH TO CONSUMERS' EXPENDITURE

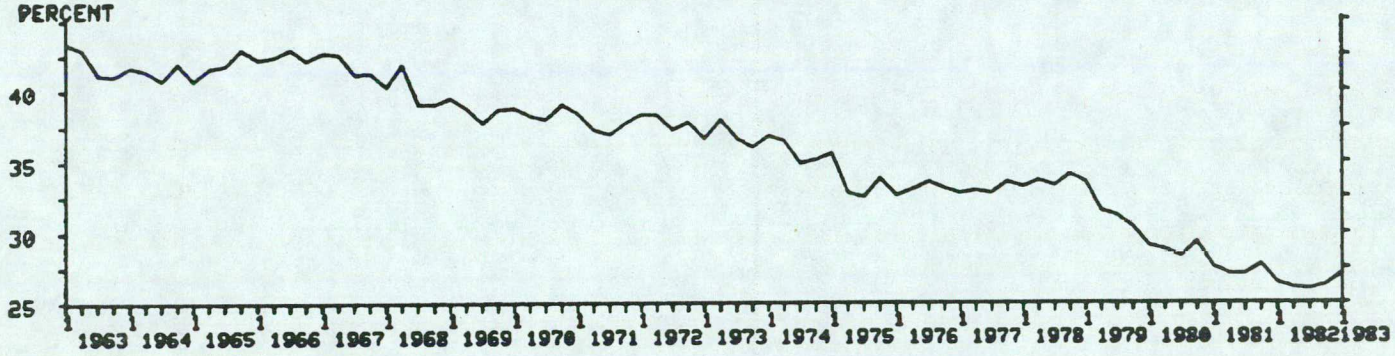


Table 1: Shares of Value of Consumer Payments (Percentages)

	1976 Payments of £1.50 or more	1981 Payments of £3 or more
Cash	68	50
Cheques	19	30
Standing orders/Direct debit	6	12
Credit transfers	1	2
Credit cards	2	3
Other	4	3
	100	100

Source: Inter-Bank Research Organisation

24. Banking services In 1970 the number of current accounts (including accounts of multiple account holders and businesses) amounted to less than one third of the total population, but by 1982 the ratio had risen to over one half (table 2). Throughout the 1970s an increasing percentage of wages and salaries were paid by cheque or credit transfer directly into bank accounts rather than as cash in wage packets (table 3). The increasing use of credit transfers to pay wages has allowed companies to economise directly on holdings of note and coin. (Company sector cash holdings amount to only about 8 per cent of total notes and coin in circulation outside the monetary sector.) The shift in the method of paying wages may have also contributed to the increased use of bank accounts by the personal sector.

Table 3: Wage and Salary Means of Payment (percentage)

	1960	1976	1979	1981
Cash	75	59	54	44
Cheques	10	12	14	15
Credit transfers	15	27	31	38
Other	-	2	1	3

Source: Inter-Bank Research Organisation

25. In many instances, especially when large amounts are involved, payment by cheque is the closest substitute for payments in cash. Moreover, the holding of a bank current account facilitates the use of direct debiting and standing orders. In recent years the proportion of payments made by cheque and standing orders/direct debits has increased by nearly 50 per cent (table 1).

26. Building society share accounts As a percentage of the total population the number of building society share accounts (including multiple holdings of accounts) quadrupled between

Table 2

	(1) Number of Current Accounts*			(2) Number of Building Society Share Accounts*			(3) Number of Building Societies' Branches	
	Millions	% increase	As a percent of the total population	Millions	% increase	As a percent of the total population	Number	% increase
1970	16.8	5.7	30.3	10.3	13.1	18.6	2,016	11.6
1971	17.6	4.7	31.7	11.6	12.6	20.8	2,261	12.2
1972	18.7	6.3	33.5	12.9	11.2	23.1	2,522	11.5
1973	19.6	4.8	35.0	14.4	11.6	25.8	2,808	11.3
1974	20.7	5.2	37.0	15.9	10.4	28.4	3,099	10.4
1975	21.7	4.9	38.8	17.9	12.6	32.0	3,375	8.9
1976	22.8	4.9	40.8	20.0	11.7	35.8	3,696	9.5
1977	23.6	3.9	42.3	22.5	12.5	40.3	4,130	11.7
1978	25.1	6.2	45.0	25.0	11.1	44.8	4,595	11.3
1979	26.7	6.2	47.8	27.9	11.6	49.9	5,147	12.0
1980	28.1	5.6	50.2	30.6	9.6	54.7	5.684	10.4
1981	29.4	4.6	52.2	33.4	9.2	59.3	6,162	8.4
1982	30.9	5.1	53.8	36.6	9.6	65.0	6,480	5.2

Sources: Inter-Bank Research Organisation, BSA Bulletin, October 1983.

*Figures do not make allowances for holding of multiple accounts or numbers of accounts held by businesses.

1970 and 1982 to exceed the number of current accounts (table 2). For the personal sector deposits with building societies are now about one third larger than deposits with banks.

27. About 70 per cent of building society shares and deposits are highly liquid with maturities of 7 days or less (many redeemable on demand). Since 1970 the value of building society shares and deposits has risen as a percentage of personal sector gross financial wealth by almost 100 per cent, while the value of holdings of assets which are less liquid, such as long term bonds and securities, has declined as a ratio of gross financial wealth (table 4). Combined with a rapid increase in the number of building societies' branches, the number of which has trebled since 1970 (see table 2), the implication is that the personal sector is holding a greater proportion of its total financial wealth in a more accessible form. The attractive interest rate structure and the relative accessablity of savings held with building societies is likely to have encouraged the personal sector to economise on holdings of notes and coin. This may have been especially true recently with the introduction of building society accounts with cheque book, direct debiting and credit or cash card facilities attached.

28. Cash dispensers increase personal accessibility to notes when banks are closed, or crowded or at places away from bank branches. There has been a four fold increase in the total number of cash dispensers since 1972 and a shift towards the use of on-line cash dispensers which now account for 95 per cent of all cash dispensers in use (table 5). In addition to providing bank notes, on-line terminals facilitate a number of bank account related services such as ordering a cheque book or obtaining balance information. The implications of cash dispensers for the personal sector cash holdings is not immediately clear. They may encourage a greater use of notes in transactions, but by making cash withdrawals more convenient they may have also lead persons to reduce the average inventory of notes and coin held.

29. Credit cards. The absolute value of consumer payments made using credit cards remains of minor importance (table 1), but the rate of increase in the number of credit cards held and the real value of transactions made using credit cards has expanded at 10 to 20 per cent per annum over the last 10 years (table 5). Credit cards are not themselves a means of final payment. Rather they are a type of trade credit which concentrates a part of normal payments into a single monthly total which is settled by a bank transfer. They thus economise on the public's use of cheques and also the average holding of deposits in a chequable form. The associated credit facilities also increases payments flexibility and might cause agents to economise (ex ante) on precautionary holding of notes and coin, even if credit cards account for a small number of transactions ex post. But since transactors can also draw cheques, it is not altogether clear that credit cards would have an additional affect on the holding of notes and coin for precautionary purposes.

Table 4: **Personal sector holdings of gross financial wealth by asset types (end year stocks) as a percentage of total**

	Money*	National Savings	Building Society Shares and Deposits	Others*
1970	13.7	7.1	10.8	70.4
71	12.5	6.3	10.7	70.6
72	12.8	5.9	11.2	70.1
73	16.5	6.3	13.5	63.6
74	21.7	7.0	16.9	54.4
75	17.2	5.7	16.0	61.1
76	17.1	5.5	16.8	60.6
77	14.5	5.1	16.7	63.7
78	15.2	5.4	17.5	61.9
79	16.0	4.5	17.6	61.9
80	16.0	4.3	17.3	62.4
81	15.4	5.6	17.4	61.6
82	15.4	5.6	17.1	62.0

*Holdings of notes and coin together with sterling and foreign currency sight and time deposits (including certificates of deposit) at UK banks.

*Includes saving bank deposits, Local Authority temporary loans, public sector long-term debt, UK stocks and shares, trade credit, equity in pension and insurance funds, accrual of taxes and interest and other overseas and domestic assets.

Source: Financial Statistics

Table 5

	(1) Number of Cash Dispensers				(2) Number of Credit Cards		(3) Transactions made using Credit Cards		
	Total	% increase	On line	% increase	Million	% increase	Current £bn	£bn in 1975 prices$^{\phi}$	% increase on previous year
1970	646	-			1.4		-	-	-
71	738	13.9	-		1.8	33	-	-	-
72	825	25.3	-		2.1	20	-	-	-
73	1,242	34.3	230	-	5.6	159	-	-	-
74	1,487	19.7	337	46	6.2	11	0.5	0.6	-
75	1,868	25.6	568	68.0	6.6	9	0.7	0.7	17
76	1,976	5.8	730	28.5	6.5	-3	1.0	0.9	29
77	2,205	11.6	891	22.1	7.5	16	1.4	1.0	11
78	2,186	-0.1	1035	16.2	8.5	18	1.9	1.3	30
79	2,224	1.7	1220	17.7	9.8	15	2.5	1.5	15
80	2,523	13.4	1752	43.7	11.0	12	3.4*	1.7	13
81	3,227	27.9	2765	37.8	12.2	11	4.3*	1.9	12
82	4,143	28.4	3884	40.5	13.4	10	5.4	2.2	16

Source: Inter-Bank Research Organisation

** Excludes Trustcards, Co-op Visa, Diner's and retailers cards

* Assumes that value of transactions using American Express cards grew at the average rate for other credit cards

ϕ Deflated by the Retail Price Index, 1975 = 100

30. Technical innovations in the means of payment in some other European countries have also been seen to influence the demand for narrow monetary agggregates in those countries. The rise in the number of wage and salary accounts at banks in Germany during the 1960s caused a gradual shift away from the use of notes and coin to the use of sight deposits for making payments. The shift in payments habits is thought to have ended by about 1970. In Italy changes in the methods of paying wages and salaries and the greater use of credit cards led to a fall in the demand for currency during the second half of the 1970s. There appears to have been little tendency for the Swiss to economise on their holdings of currency over the last 20 years. The interpretation of the demand for currency in Switzerland is, however, complicated by the fact that the interest sensitivity of the demand for larger denomination bank notes appears to be much greater than that for smaller denomination notes.

A broader measure of transaction balances

31. Concern about the appropriateness of M1 or other monetary aggregates as a measure of balances held for transaction purposes led to the introduction of a new monetary aggregate M2. The new aggregate is defined to include

(a) notes and coin in circulation outside the monetary sector;

(b) all non interest bearing sight deposits;

(c) all other deposits (regardless of size and maturity) on which cheques can be drawn;

and (d) other "retail" deposits ie deposits of less than £100,000 having a residual maturity of less than one month.(1)

Only private sector deposits are included in M2. The new aggregate covers deposits with the monetary sector, building societies and National Savings Bank ordinary accounts. The aim being to include in one definition all deposits of similar economic characteristics which can be most readily used for transaction purposes now or in the near future.

32. As M2 is defined to cover the liquid assets which have in the main been influenced by the innovations in cash management and the growth of interest bearing sight deposits, the effects of innovation will largely have occurred within M2 and the growth of the aggregate may not have been greatly distorted (although the interest sensitivity of the aggregate may have changed). M2 may therefore be a more satisfactory measure of transaction balances for econometric investigation. The run of available data, which only begins in November 1981, is too short for meaningful investigation, however. Moreover, since about 70 per cent of M2 balances bear interest, they are more likely to perform a precautionary role than the narrower, non interest bearing, forms of money.

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(1) See the Bank of England Quarterly Bulletin, June 1982 and March 1983.

IV. SPECIFICATION OF THE DEMAND FOR NARROW MONEY

Transactions demand

33. The general approach to the analysis of the transactions demand for money as developed by Baumol (1952) and Tobin (1956) is the inventory theoretic model. The assumptions of this model are that agents receive income in (known) regular lump sum payments but have to make (known) disbursements out of their income continuously. There is no uncertainty in the model. The assumptions of the inventory approach are more appropriate when applied to households (Orr 1971), but less useful when used to analyse the behaviour of firms. More complex models which allow for uncertainty in the stream of payments and receipts and are more appropriate for companies have been developed by Orr (1971) and Miller and Orr (1966). In practice some 90 per cent of notes and coin outside the monetary sector and perhaps 70-80 per cent of nib sight deposits are held by the personal sector.

34. The basic theoretical result from the inventory theoretic models is the familiar square root formulae:

$$M^* = \sqrt{\frac{bY}{2i}} \qquad (1)$$

Where M* is the optimal average cash balance, Y the value of transactions paid for using cash (nib sight deposits), i the interest rate foregone in holding cash and b the "brokerage fee", ie the fixed cost per transaction in converting between interest bearing assets and cash.

35. The square root result is closely dependent on the initial assumptions of the model. It has been shown that other plausible assumptions about the form of the brokerage fee generate different predictions for the income elasticity of money demand eg a unitary elasticity (Brunner and Meltzer, 1967)[1] or that allowing agents to draw on credit facilities (eg credit cards) lowers the average cash balance and raises the interest sensitivity of the transactions demand for money compared with the Tobin/Baumol formulae (Rama Sastry 1970). The following more general functional form is therefore normally adopted as the starting point for empirical analysis of the transactions demand for money (for example Coghlan 1978):

$$M^* = AY^a i^b \qquad (2)$$

---

[1] The proposition that money is proportional to transactions is, of course, a feature of the simple quantity theory of Irving Fisher (1911).

Where the constant A subsumes the "brokerage fee", b, in equation (1). A plausible restriction for the coefficient a would be around unity ie in the long run the transactions demand for money is approximately homogeneous in the value of transactions or at least homogeneous in the price component of transactions. The value of b is more problematic.

36. When there is a fixed cost in transferring funds between the non interest bearing (cash or nib sight deposits) and the interest bearing asset, the inventory theoretic model potentially yields a solution where the transactions demand for money is independent of the rate of interest. This occurs when the interest to be earned from placing funds in interest bearing assets is less than the costs of making the initial purchase and subsequent sale of the interest bearing assets. The minimum optimal purchase of interest earning assets involves initially investing one half of the total funds held for transactions at the beginning of the transactions period and selling the interest earning assets halfway through the period to finance transactions in the second half of the period. Transaction costs amount to 2b, where b is the fixed cost per transaction, and the interest earned amounts to Yi/4, where i is the interest rate per transactions period. Thus it will not pay agents to buy any interest earning assets if:

$$b > Yi/8$$

37. At low levels of transactions or interest rates and high levels of transaction costs agents may not find it profitable to purchase any interest earning assets and the demand for notes and coin would not appear interest sensitive. But as the value of transactions or interest rates rise or transaction costs fall, more agents would find it profitable to switch into and out of interest earning assets. As this occurs the interest sensitivity of the transactions demand for cash aggregated over all agents (ie the macro demand for money) would rise towards the elasticity predicted by equation (1) ie - ½. Innovations in cash management, such as those surveyed in section III, will tend to reduce the costs of switching between interest earning assets and notes and coin and may be expected to raise the interest sensitivity of cash holdings. Moreover, the interest sensitivity of cash holdings will be higher when interest rates are high.

38. The existence of credit facilities has implications for the interest sensitivity of the transactions demand for cash. The Tobin/Baumol model implicitly assumes that an infinite cost is involved in running short of cash (or nib sight deposits). But this is not the case if agents can draw on overdraft facilities or charge transactions using credit cards. Rama Sastry (1970) has adapted the Tobin/Baumol model to allow agents to draw on credit

facilities. The revised formula for the optimal average money holdings becomes:

$$M^* = \left(\frac{bY}{2i}\right)^{\frac{1}{2}} \quad \left(\frac{r_c}{i+r_c}\right)^{\frac{1}{2}} \qquad (3)$$

where r_c is the cost of drawing on credit or overdraft facilities. The Baumol model, represented by the first term in equation (3), is a special case of (3) when r_c in infinite.

39. Equation (3) has two important implications for individuals demand for cash:

(i) Since the second term in (3) is necessarily less than unity, for positive i and finite r_c, the optimal cash balance will be less when an individual has access to a credit line than when he has not and

(ii) the interest sensitivity of the demand for cash is

$$-\tfrac{1}{2}\left(1 + \frac{i}{i+r_c}\right)$$

which is never absolutely less than the $-\frac{1}{2}$ predicted by the Tobin/Baumol model and is greater for non-zero i.

40. The growth of the number of people with bank accounts and thus with potential access to overdraft facilities and in the holding of credit cards (section III) may well tend to lower average holdings of cash but raise the interest sensitivity of the demand for cash.

Precautionary demand

41. In the Tobin/Baumol model the nature of inflows and outflows are assumed to be known and in the light of this the optimal money holding rules derived. It is much more likely, however, that inflows and outflows will not be perfectly anticipated even in the short run. Uncertainty about payments flows leads to the holding of precautionary money balances. Even the very narrow, non interest bearing, monetary aggregates are likely to contain a precautionary element, although this will probably be much smaller than in broader measurs of money.

42. Akerlof and Mellourne (1980) examine a model which allows for uncertainty in payment flows and which may be appropriate for the personal sector. The model involves target-threshold monitoring which assumes that agents move between money and interest earning assets only when money balances reach a certain threshold level. The implications of this analysis are that money balances will generally be adjusted with a lag to income and expenditure flows, and that the very short-run income elasticity of money demand will be low. The target-threshold model thus provides an explanation of the relatively slow adjustment speeds that are often observed in empirically estimated money demand equations and attributed to inertia in cash management behaviour, e.g. in the familiar stock adjustment model.

43. Sprenkle and Miller (1980) consider the optimal holding of precautionary balances, when there are random forecast errors in the flow of payments and receipts, under different assumptions about the availability of credit facilities. Model III in their paper examines the case where there is a fixed penalty cost in being overdrawn and provides similar conclusions to those obtained by Rama Sastry (1970): if the penalty cost of being overdrawn falls, the interest sensitivity of narrow money demand increases, while average narrow money holdings decline. The Sprenkle-Miller model is examined further in Annex 2.

Problems in empirical estimation

44. A problem in estimating an equation like (2) is that none of the variables which enter the model theoretically are directly observable. The "brokerage fee" is a catch all for a number of non price factors which determine the convenience to different individuals of withdrawing cash - eg the nearness and number of bank or building society branches, or automated cash dispenser machines, the length of queues at cash windows or at cash dispensers, the opening hours of bank or building society branches, etc - as well as any institutional charges eg for the encashment of cheques. New techniques in cash management may have led to a decline in the costs of acquiring cash and shifting between cash and interest earning assets (eg with building societies). But these factors are not readily quantifiable[1].

45. In the notes and coin equation the appropriate measure of transactions should be the value of transactions paid for using cash (the value of transactions paid for using cheques in a nib sight deposit equation). There have been two surveys of the use of different means of consumer payments (by IBRO in 1978 and 1981). Although insufficient for empirical analysis, the surveys indicate that the use of cash to make payments has been declining. The use of either total income or consumer expenditure as the measure of transactions would be a mis-specification of a demand for cash equation based on inventory theory.

Possible econometric effects of excluding financial innovation variables from the equation

46. Say the true model is:

$$M = a + Y^T B + u \qquad (4)$$

The matrix Y^T of explanatory variables is defined as

$$Y^T = [T^T, r^T] \qquad (5)$$

where T^T is the value of transactions undertaken in cash and r^T is the effective interest rate involved in holding non interest bearing money balances. The observed total value of

---

(1)For the UK at least there do not apear to have been any surveys of the costs to consumers of acquiring cash. Surveys have, however, been made of the cost to the banks and in some countries the costs to retailers of handling cash (see OECD 1983).

transactions, T, and nominal interest rate, r, differ from T^T and r^T respectively because of the innovations in the means of payment. T^T will be less than T because a larger proportion of transactions are undertaken using cheques etc; and the relationship between r^T and r may depend, for example, on whether credit facilities are avaialble, and access to interest bearing accounts. The relationship between T and T^T and r and r^T might be written, assuming a log linear formulation, as

$$T = T^T + g(t)$$

$$r = r^T + h(t)$$

or $$Y = Y^T + G(t)$$

where $Y = [T, r]$ and $G(t) = [g(t), h(t)]$

47. The true model (4) can be written in terms of Y as

$$M = a + YB + u - G(t)B \qquad (6)$$

The least squares estimator from (6) is

$$B = B + (Y'Y)^{-1} Y'(u-G(t)B)$$

which will still yield consistent and unbiased estimates of B <u>if</u> total transactions and the nominal level of interest rates are independent of u and G(t), the financial innovation variables. However, it is likely that financial innovations are, in part, a response to high rates of inflation and would not therefore be independent of the explanatory variables - nominal interest rates and nominal transactions - which are also partly dependent on inflation. In this case estimation of (6) would lead to biased estimates. Moreover, as is well known, the estimator B will no longer be minimum variance since

$$\text{var}(B) = E[(Y'Y)^{-1} Y'(u - G(t)B)(u - G(t)B)'Y (Y'Y)^{-1}]$$

$$= \sigma_u^2 (Y'Y)^{-1} + E[(Y'Y)^{-1} Y' G(t)BB'G(t)'Y (Y'Y)^{-1}]$$

if $E(Y'u) = E(u'G(t)) = 0$, where σ_u^2 is the variance of u

48. The larger error variance raises the standard errors on the parameter estimates and <u>biases downwards tests of significance</u>. In an extreme case it might cause the researcher to drop explanatory variables as non significant. Furthermore, the error structure in the mis-specified equation (6) is complex and not likely to be white noise. If the researcher began with a general model including a number of lagged dependent variables and transaction terms, it is possible that the dynamic structure of the innovation variable, G(t), would be incorrectly picked up by the lagged terms introducing a spurious dynamic structure

to the equation. Comparing the final forms of the estimated cash equations reported below, which include proxies for innovations in cash management, with those estimated by other researches which do not eg the Bank of England (1982), shows that our estimates have simpler dynamic structures and somewhat better determined interest rate effects than the Bank equations which may indicate that the exclusion of financial innovation variables is of some importance.

V THE RESEARCH PROCEDURE AND THE DATA

Research procedure

49 The theory of the transactions or precautionary demand for money is not explicit about the lags from transactions and interest rates to money demand. The research procedure followed therefore allows the data to determine the dynamic structure in the estimated equations. This approach follows the general to specific method used by Davidson et al (1978), Hendry and Mizon (1978) and Hendry (1979). The starting points are equations of the form

$$\Delta \ln M = a_o + a_1 \ln M_{-1} + a_2 \ln M_{-2} + a_3 \ln M_{-3} + \sum_{j=0}^{n} b_j \ln T_{-j} + \sum_{i=o}^{m} c_i \ln P_{-i} + \sum_{p=0}^{k} d_p P_{-p} + \text{innovation variables} + \text{seasonal dummies} + E_t \quad (7)$$

Where M is the nominal stock of money, measured at end banking months, T is the nominal monthly level of transactions and P is the consumer price index. The monthly transactions and price index data are interpolated quarterly observations (see below); r is the monthly average or end month three-month interbank rate. All data are seasonally unadjusted.

50. These equations are general enough to allow for a range of dynamic responses, lag lengths and the inclusion of variables in levels and/or changes. The aim of the testing down procedure from the general model is to arrive at more efficient parameter estimates with acceptable economic properties, consistent with the data generation process. The testing is carried out sequentially, starting with the general model and proceeding in stages towards more restricted versions. Sequential tests are not, however, independent, as each test in the sequence is dependant upon the acceptability of previous tests, which tends to weaken the power of the testing procedure based on central F or χ^2 distributions. We therefore tested each restrictions in the sequence against the general model, as well as checking the consistency of the restriction against the previous restricted model. It is unclear how the power of repeating central F tests against the general model are affected by the sequential testing procedure.

51. We have departed slightly from the general to specific search procedure by imposing the restriction that the lagged interest rate terms lie on a (third degree) polynomial. The third degree Almon polynomial is flexible enough for the restriction to be easily accepted by the data. We also test and examine a geometric lag form on personal disposable income (although level variables are also investigated). The rationale for this restriction is the importance often attributed to permanent or expected income in explaining the demand for money (see paragraph 73 below). The main effect of the geometric lag term is to alter the speed of adjustment in the equations.

52. The possible effects of financial innovation on narrow money demand suggests that there could be some interaction between the the innovation variables and the transactions variables and interest rates. These interactions could imply some within equation restrictions on the parameters in the equation. However, the imposition of such restrictions probably requires more knowledge about the exact impact of the different financial innovation variables then we actually possess. Most of the final estimated equations include only a single proxy for the trend in financial innovation and it is not clear how the coefficient on this variable should be allocated among the other explanatory variables.

The data

53. Detailed sources and definitions of the data are given in Annex 3. This subsection provides a general discription of the data.

Dependent variables

54. The monetary aggregates investigated are

(i) notes and coin in circulation outside the monetary sector;

(ii) the wide monetary base, M0;

(iii) non interest bearing sight deposits; and

(iv) non interest bearing M1, which is the sum of notes and coin in circulation outside the monetary sector and non interest bearing sight deposits.

Notes and coin in circulation outside the monetary sector comprises holdings by the non bank private (personal and company), the public and overseas sectors. The overwhelming proportion, some 90%, is held by the personal sector.

55. The present definition of the wide monetary base, M0, which has been in use since August 1981, is:

Wide monetary base	=	notes & coin in circulation with the public	+	notes & coin held by banks (till money)	+	operational bankers' deposits held at the Bank of England

Operational bankers' deposits are non interest bearing deposits retained voluntarily by banks (predominantly the London clearing banks) at the Bank of England over and above non operational cash ratio deposits.

Cash ratio deposits are non interest bearing deposits institutions in the monetary sector have agreed to hold at the Bank of England. The cash ratio, introduced in August 1981, is set at ½ per cent of institutions' eligible liabilities. These deposits are excluded from the definition of M0.

56. The collection of data on notes and coin in circulation and M0 has a long history with data on a weekly basis available back to 1919. The first banking monthly[1] information on holdings of notes and coin and the wide monetary base is available from February 1961 and on a seasonally adjusted basis from January 1972. Calendar quarterly data on notes and coin on a seasonally adjusted and unadjusted basis are published from 1963. Data on M0 are only published on a banking month basis. All data are end periods.

57. The split between interest and non interest bearing sight deposits (and nib M1) is first available on a banking month basis in May 1975 and on a calendar quarter basis from 1975 second quarter. End period data are available from these dates in a seasonally adjusted or unadjusted form.

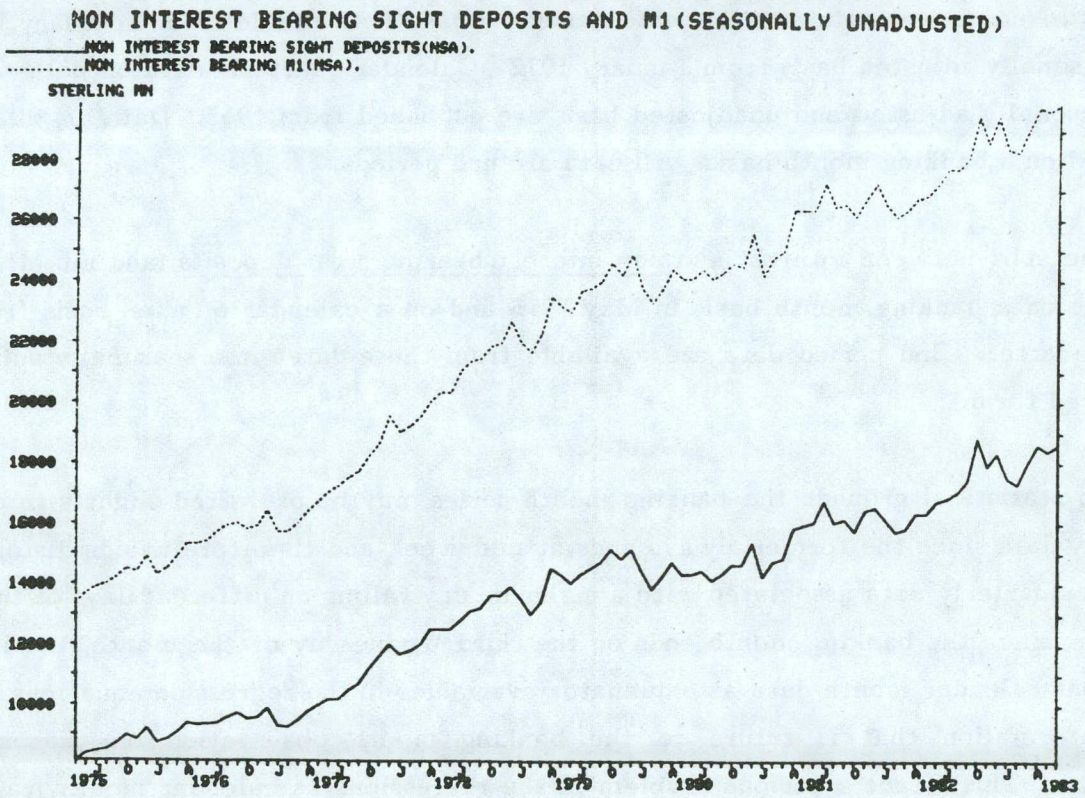
58. On statistical grounds the banking month series may be preferred slightly to calendar quarterly data since the former always ends at mid-week and therefore avoids distortions in calendar quarterly data associated with a make-up day falling on different days of the week. However, since the banking month ends on the third Wednesday of the month, the inclusion of current calendar month data as explanatory variables in the regression equations involves some information that is future to the banking month observation on the monetary aggregate. This is not a serious problem in the regressions as calendar month transaction variables are entered as lags and interest rates in the form of long Almon lags.

---

(1)A banking month is defined as the period up to and including the third Wednesday of every month except December, when the banking month ends on the second Wednesday.

59. The available seasonally unadjusted banking monthly data on notes and coin, the wide monetary base and the till money and bankers' balance components are shown in Chart 4. The overwhelming proportion (some 90 per cent) of the wide monetary base is made up of notes and coin in circulation outside the monetary sector . The next largest component are the monetary sectors' holdings of till money (some 8 per cent of total MO). The remaining fraction represents bankers' balances included in MO which are highly volatile from one end banking month to the next. The text concentrates on the aggregate series for MO; the bankers' balance and till money components are examined further in Annex 2. Chart 5 shows the seasonally unadjusted banking month data on nib sight deposits and nib M1.

Chart 5



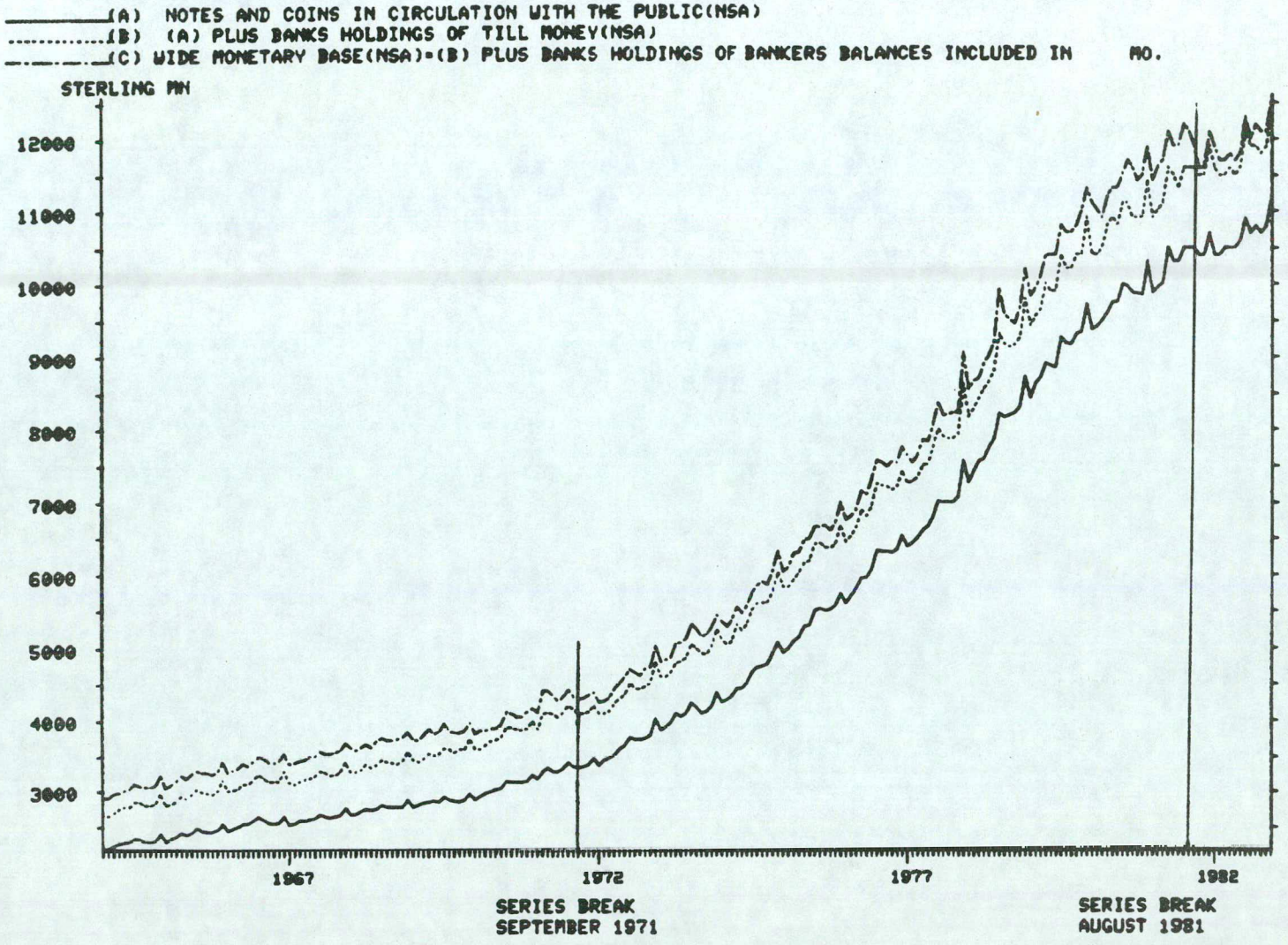
Series breaks

60. The change from reporting on the basis of the old banking sector to the new monetary sector in November 1981 leads to a statistical break in the series for the narrow aggregates. Series are estimated back to February 1980 on the basis of the new monetary sector. Prior to that date it has been necessary to splice together series collected on the basis of the different sectors. The break for notes and coin (and M0) is of minor importance and has been ignored.

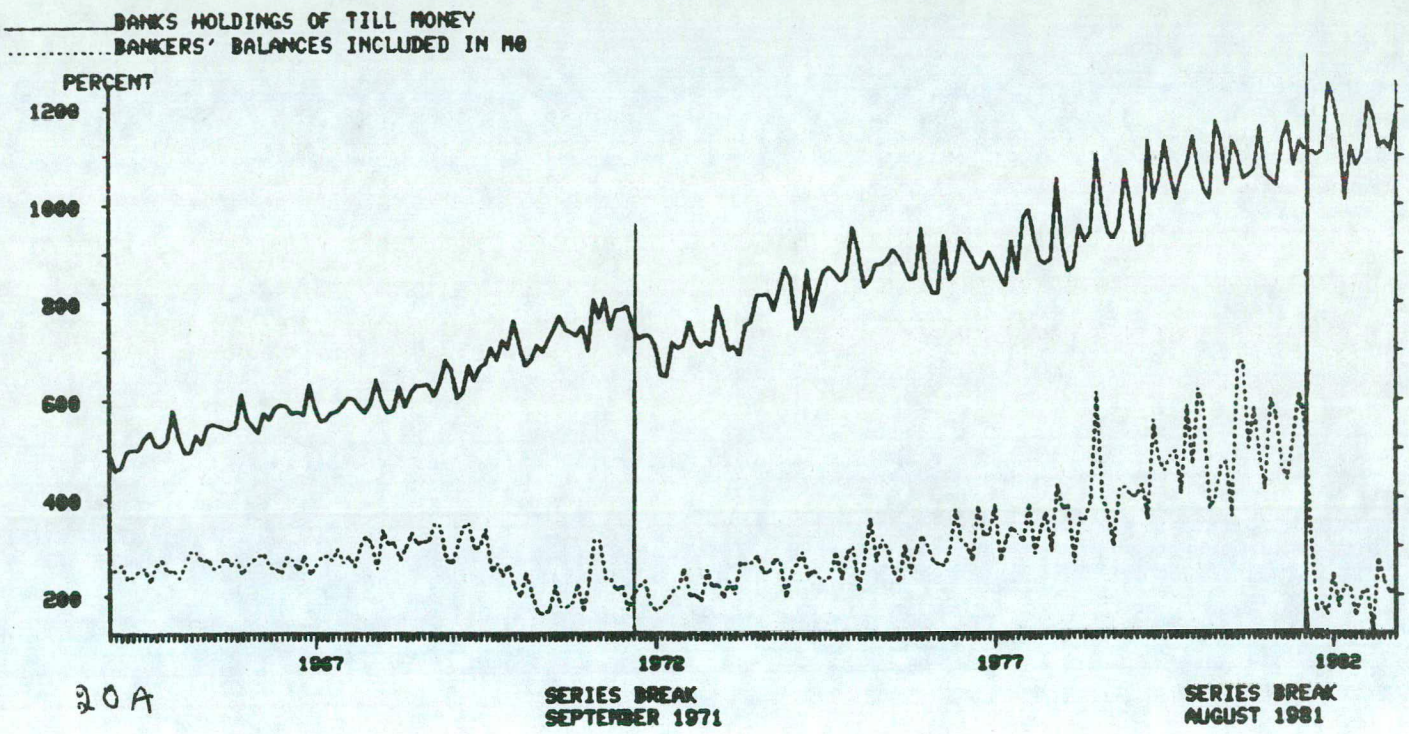
61. The data on M0 are distorted by two changes in the monetary control regime, in September 1971 and August 1981. These changes affected the size of total holdings of bankers' balances and the amounts included in the statistics on the wide monetary base. The detailed changes to M0 are listed in Annex 1 together with other institutional factors which

CHART 4

PANEL A:COMPONENTS OF THE WIDE MONETARY BASE



PANEL B: BANKS HOLDINGS OF TILL MONEY AND BANKERS' BALANCES.



may distort the series on notes and coin eg the change to decimalised coinage in February 1971 and the introduction of new denominations of notes.

62. The behaviour of bankers' balances under the different control regimes is examined in Annex 2. The examination convinces us that it is not possible to construct a series for M0 that is fully consistent across different monetary control regimes. We have adjusted the data on M0 between September 1971 and August 1981 by subtracting the average 1½ per cent reserve asset requirement on banks holding of balances at the Bank of England. This makes movements in the series more consistent with the post August 1981 published data on M0 which excludes the ½ per cent cash ratio deposits. But this adjustment is not completely satisfactory. The 1½ per cent reserve asset requirement for bankers' balances was held on a <u>average</u> basis and it could therefore be drawn on from day to day for operational purposes. Subtracting the whole 1½ per cent reserve requirement <u>overestimates</u> the holding of bankers' balances for non-operational purposes. We have therefore included a shift dummy, DMCR, for the change in the monetary control regime in August 1981 in the M0 equation.

63. The series break in September 1971 is even more complex. Prior to that date the 8 per cash ratio applied to the sum of bankers' balances and till money, while the 1½ per cent reserve asset requirement after September 1971 only applied to bankers' balances. We have not attempted to adjust the M0 series for this series break but have instead simply included a shift dummy, DCCC, for the change in the monetary control regime. DMCR takes the value 1 up to August 1981 and zero afterwards, DCCC takes the value 1 up to September 1971 and zero afterwards.

64. The general to specific testing down procedure concentrates on the equations for notes and coin, nib sight deposits and nib M1. Notes and coin in circulation outside the monetary sector amount to 90 per cent of the wide monetary base and it would therefore be unusual if the aggregate M0 equations had a markedly different structure from the notes and coin equation. The series on M0 also suffers from two disadvantages:

(a) there are breaks in the M0 series which require the inclusion of shift dummy variables in the regressions. The shift dummies could pick up more than the changes in the monetary control regimes they are intended to proxy and could bias the testing down procedure;

and (b) the end banking month M0 series is more volatile than the notes and coin series and residual errors on the general M0 equation are three times larger than on the general equation for notes and coin. The larger residual errors on the general equation means that the F tests for restrictions on the general model may be more easily passed on the M0 than the notes and coin equation. The greater volatility and residual error on the M0 equations reflects the erratic nature of

the very small bankers' balance component at end months. It would not be satisfactory to specify an equation for aggregate M0 that was crucially dependent on the size of the fluctuations in the small bankers' balance component. To avoid these problems it seems more appropriate to specify the aggregate M0 equation using the notes and coin equation, and then to test the data consistency of the M0 equation against the general equation.

65. It might be appropriate to treat the demand equation for nib M1 as some (weighted) combination of the demand equations for its components, notes and coin and nib sight deposits. But, if there are frequent, unexplainable, shifts between the components, the demand for nib M1 could be better determined than the weighted combination of the demand for the individual components. The explanation of the demand for nib M_1, compared to its individual components, provides an indication of the appropriate degree of aggregation in the data.

Explanatory variables

66. Financial innovation variables. There are three reasons for including the financial innovation variables in the narrow money demand equation: to proxy a decline in brokerage fees and to modify the transaction and interest rate variables. The available data on the factors influencing cash management behaviour are sketchy but the potential role of these variables on narrow money demand is important enough that some attempt is made to use the information in the research. The financial innovation variables examined in the equations are the ratio of the number of current accounts, to the total population, CA/pop, the number of building society share accounts to the total population, BS/pop, the total number of cash dispensers, CDA, and the number of credit cards, CC.

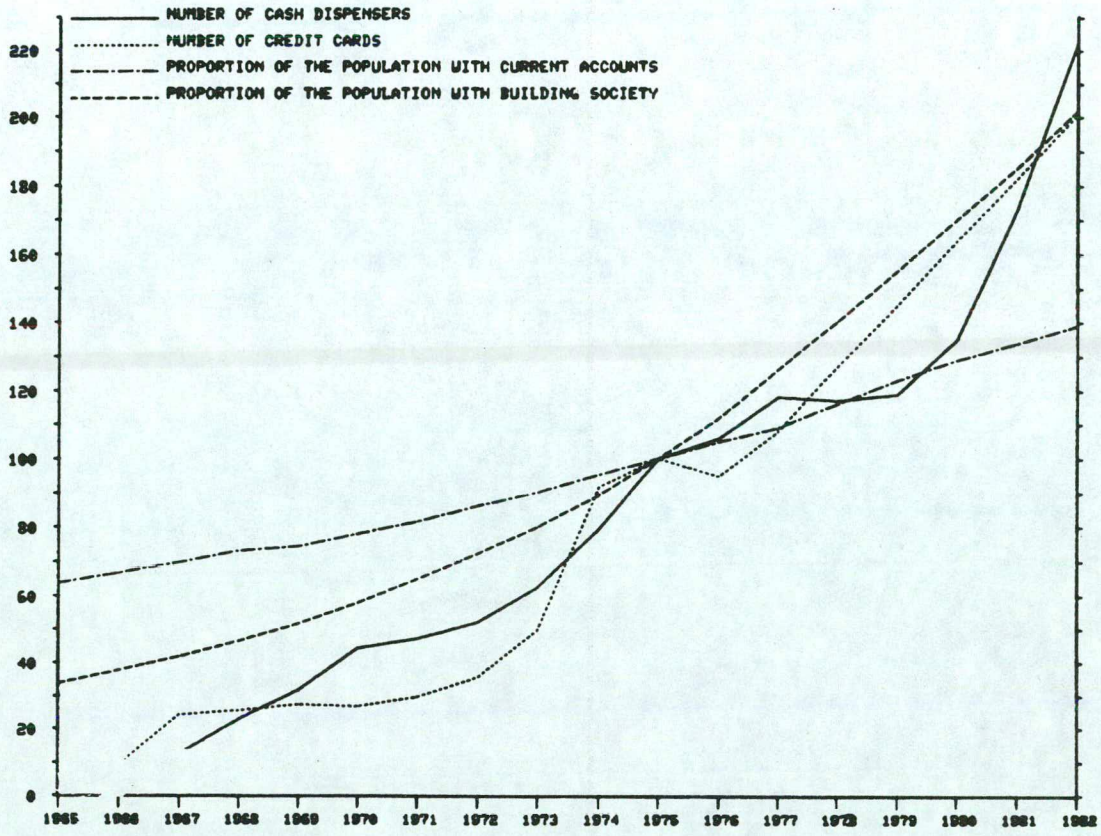
67. Panel A of chart 6 shows the relative trends in the four innovation variables and panel B the income velocity of cash (all variables are in the form of index inumbers, 1975 = 100). The trend increase in the velocity of notes and coin is closely mirrored by the innovation variables. The simple correlation between the individual innovation variables and cash velocity 1967-82 are:

$\frac{CA}{pop}$	$\frac{BS}{pop}$	CC	CDA
0.986	0.983	0.982	0.967

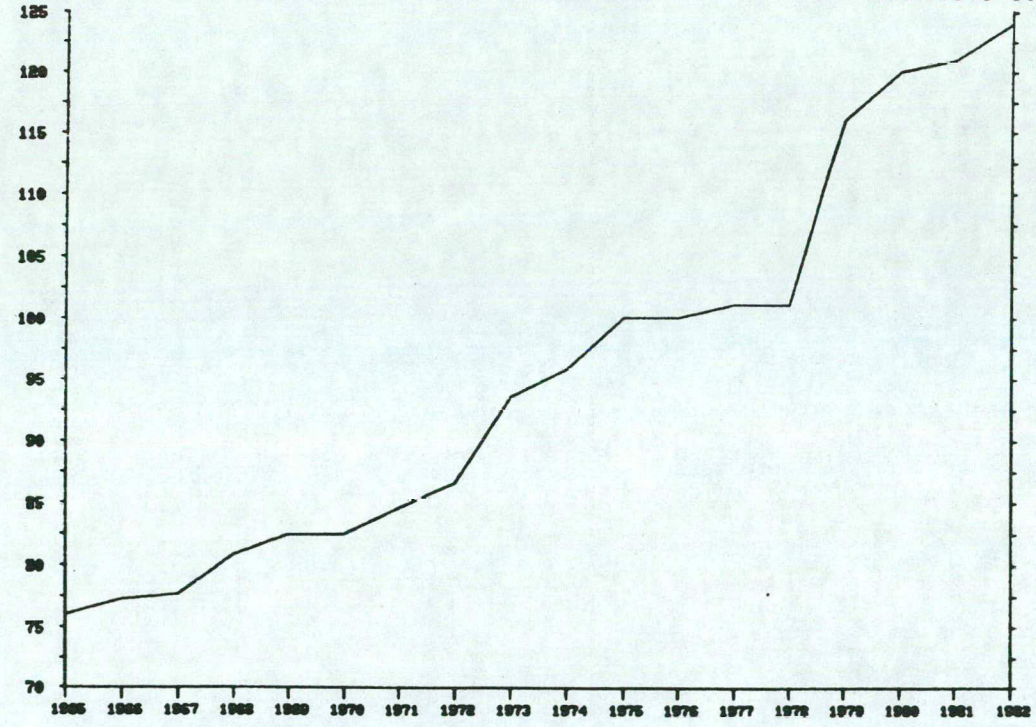
68. Since the incidence of observations on the innovation variables is annual, it has been necessary to interpolate the series for inclusion in the monthly and quarterly regression equations. The interpolation program used is described in Annex 4. It involves fitting a

CHART 6

PANEL A: INDEX OF FINANCIAL INNOVATION VARIABLES (1975=100)



PANEL B:PERSONAL DISPOSABLE INCOME VELOCITY OF NOTES & COINS (1975=100)



third degree polynomial to a base period of 5 years (or 5 quarters when quarterly data are used) and constraining the slope and intercept of the polynomial to be the same on over lapping base years.

69. One possible way of using the innovation variables would be to include the first and perhaps second principal components as regressors in the equations rather than the individual innovation variables. The first principal component accounts for almost 99 per cent of the total variance in the four innovation variables. But principal components are difficult to interpret and in this case are similar to a general time trend. While the link between the individual innovation variables and cash demand may not be very clear, the growth of current accounts would appear to be a better proxy for the decline in the use of cash in making transactions, while the other innovation variables may be better proxies for the decline in brokerage fees.

70. Transactions and price variables. The econometric work on notes and coin and MO investigates the importance of two measures of transactions: total consumer expenditure and personal disposable income. The nib sight and M1 equations concentrate on personal disposable income. Some 20 - 30 per cent of nib sight deposits are held by the company sector and thus a broader measure of income might be appropriate in this equation. However, the use of total final expenditure did not improve the equations fit. The price index series used is the deflator for total consumer expenditure.

71. National accounts data are collected quarterly and the series were therefore interpolated to monthly data, using the same technique as for the financial innovation variables, for use in the monthly money demand equations. An alternative method of interpretolation might have been to use the movements in monthly price and activity variables. At an earlier stage in the research some work was based on monthly series for retail prices and retail sales. The initial demand for money results did not seem very promising and so this line of research was not pursued.

72. Interest rates. There are arguments for including either a rate on personal sector savings eg a building society share rate, or a market rate eg the three month interbank rate in the narrow money demand equation. A savings rate measures the return on a close substitute to narrow money, whereas a more sensitive market rate proxies the general trend in money market conditions which ultimately influences the returns on all close substitutes to narrow money. We examined both the building society pass book rate and the three month interbank rate and have a slight preference for the three month interbank rate which is the variable included in the reported regressions. The interest rates are monthly averages where available, otherwise end month rates are used (see Annex 3).

VI ESTIMATION RESULTS FOR NOTES AND COIN AND M0

73. Importance is often attributed to expected or permanent income in explaining money demand, eg Friedman (1959), Goldfeld (1973). In the equations using personal disposable income as the measure of transactions a distributed lag on personal disposable income, T^*, has also been examined

$$\ln T^* = (1-\lambda) \ln T + \lambda \ln T^*_{-1} \qquad (8)$$

No proxy for permanent or expected consumer expenditure has been examined largely because it was felt that consumer expenditure measures more closely actual transactions and may also be itself a proxy for permanent income. Although it should be noted, when there is uncertainty about the flow of transactions and the demand for non interest bearing aggregates contains a precautionary element, the actual flow of transactions will not be the most appropriate explanatory variable. λ in equation (8) is chosen by grid searching at intervals of 0.1 to find the value which minimises the residual sum of squares in the general notes and coin equation. This gave the result $\lambda = 0.4$.

74. The first step in the testing down procedure was to impose restrictions on the lag lengths of the general equation (7). Because we have to interpolate the quarterly data on transactions and the price index, we first included the observed quarterly data at every third lag up to lag 24 (ie j = i = 0, 3, 6 ..... 21, 24 in equation (7)). Lags longer than lag 6 were, however, generally non-significant and dropping the terms is easily acceptable. The relative importance of the shorter lags led to the inclusion of the interpolated data on all lags up to lag 6 on transactions and the price index. It was also possible to drop the third lagged dependent variable as non-significant. Since two other lagged dependent variables are still included in the equation these restrictions are not severe in terms of the flexibility of the lag structures. The possibility of long response lags from interest rates to the demand for notes and coin and MO is accommodated by entering the interest rate terms in the form of a third degree Almon lag, on lags of interest rates from zero up to twenty four lags.

75. The initial estimation period for the equations is 1965M1-1982M6. The length of period is conditioned by the available data on the innovation variables. The estimation period is ended in June 1982 and the remaining observations up to end-1982 are used to examine the out-of-sample forecasting performance and stability of the equation using the Hendry forecasting test, distributed in this case as χ (6). At the time of doing the research the monetary data from 1983 could not be used to test the forecasting performance of the equations since we did not have information on the path of all the explanatory variables in 1983.

76. The results for the general notes and coin equation including two lagged dependent variables, six lags on the (interpolated) consumer price index (P) and (interpolated) personal

disposable income (PDY), the geometric lagged transactions variable, T*, the Almon lag on interest rates, four innovation dummies, CA/pop, the ratio of the total number of current accounts to the total populaton, BS/pop, the ratio of the number of building society share accounts to the total population, the number of credit cards (CC) and the number of cash dispensers (CDA), eleven seasonal dummy variables and a general time trend are as follows:

$$\begin{aligned}\Delta \ln M = {} & \underset{(2.99)}{-0.885} - \underset{(3.54)}{0.268}\ln M_{-1} + \underset{(1.82)}{0.146}\ln M_{-2} + \underset{(3.23)}{0.322}(10^{-2})r^{\phi}_{3MIB} \\ & + \underset{(1.16)}{0.293}\ln T^* + \underset{(0.02)}{0.218}(10^{-2})\frac{BS}{pop} - \underset{(1.85)}{0.510}(10^{-2})\frac{CA}{pop} + \underset{(1.70)}{0.367}(10^{-5})CC \\ & + \underset{(0.34)}{0.195}(10^{-5})\,CDA - \underset{(1.67)}{0.384}(10^{-3})TIME + \sum_{i=1}^{6}\alpha_i \ln P_{-i} \\ & + \sum_{i=1}^{6}\beta_i \ln PDY_{-i}\end{aligned} \qquad (9)$$

where

$\alpha_1 = \underset{(0.48)}{-0.114}$ $\qquad$ $\beta_1 = \underset{(0.02)}{-0.995}$

$\alpha_2 = \underset{(1.36)}{0.589}$ $\qquad$ $\beta_2 = \underset{(1.19)}{-0.443}$

$\alpha_3 = \underset{(1.12)}{-0.474}$ $\qquad$ $\beta_3 = \underset{(1.34)}{0.519}$

$\alpha_4 = \underset{(0.26)}{-0.115}$ $\qquad$ $\beta_4 = \underset{(0.45)}{-0.185}$

$\alpha_5 = \underset{(0.84)}{0.339}$ $\qquad$ $\beta_5 = \underset{(0.60)}{-0.221}$

$\alpha_6 = \underset{(1.09)}{-0.205}$ $\qquad$ $\beta_6 = \underset{(1.21)}{0.200}$

$\bar{R}^2 = 0.823$, DW = 2.00, SE(%) = 0.52,

RSS = 0.01171, n = 210, K = 36, LM(12) = 9.81, HENDRY = 3.72

ϕ Sum of coefficients on the 3rd degree Almon lag.

The LM(12) statistic is the Lagrange multiplier test for twelfth order auto-correlation and is distributed $\chi^2(12)$; SE(%) is the percentage standard error of the equation (ie the standard error divided by the mean of the absolute value of the dependent variable); DW is the Durbin Watson statistic; RSS is the residual sum of squares on the regression, n the number of observations and K the number of explanatory variables; t-ratios are given in parentheses.

77. Although the equation passes the standard diagnostic tests, the individual parameter estimates are not particularly well defined.

78. The F test for including the geometric lag on personal disposable income, T*, as the only measure of transactions in the equation, $F_{6,174} = 0.79$, is easily acceptable. The alternative test for dropping the geometric lag on personal disposable income, while retaining the level terms on personal dispoable income, not surprisingly, is also easily acceptable, $F_{1,174}=0.69$. We therefore proceeded by testing down equations with either the geometric lag measure, or the level terms on personal disposable income. The testing procedure is illustrated with the former equations. the restricted versions for both types of equation are then examined.

79. The resulting equation from dropping the level terms on personal disposal income is:

$$\begin{aligned}\Delta \ln M = {} & \underset{(2.70)}{-0.647} - \underset{(3.32)}{0.246}\ln M_{-1} + \underset{(1.82)}{0.143}\ln M_{-2} \underset{(2.89)}{-0.272}\,(10^{-2})r^{\phi}_{3MIB} \\ & + \underset{(3.36)}{0.121}\ln T^* + \underset{(0.41)}{0.417}(10^{-3})\frac{BS}{pop} - \underset{(1.39)}{0.510}(10^{-3})\frac{CA}{pop} + \underset{(1.53)}{0.323}(10^{-5})CC \\ & + \underset{(0.41)}{0.233}(10^{-5})CDA - \underset{(1.34)}{0.297}(10^{-3})TIME + \sum_{i=1}^{6}\alpha_i \ln P_{-i}\end{aligned} \tag{10}$$

where $\alpha_1 = \underset{(0.25)}{-0.030}$ $\quad \alpha_4 = \underset{(1.83)}{-0.286}$

$\alpha_2 = \underset{(1.19)}{0.183}$ $\quad \alpha_5 = \underset{(0.79)}{-0.123}$

$\alpha_3 = \underset{(0.46)}{0.073}$ $\quad \alpha_6 = \underset{(0.32)}{-0.036}$

$\bar{R}^2 = 0.825$, DW = 2.01, SE(%) = 0.52

RSS = 0.01203, n = 210, K = 30, LM(12) = 11.02, HENDRY = 3.13

ϕ Sum of coefficients on the 3rd degree Almon lag

80. A feature of both of the above equations is the poorly defined coefficients on the innovation variables, which is to be expected given the multicolinearity between the variables. The number of credit cards enters with a positive ie wrong, sign while the number of cash dispensers has a positive and insignificant coefficient. As the effect of cash dispensers on cash holdings is uncertain, on a priori grounds it would be legitimate to drop

this variable and the credit cards variable may also be dropped since it is wrong signed. The coefficient on the general time trend indicates the tendency of the growth of cash holdings to slow down, but is not helpful in the economic interpretation of cash holding behaviour. Because of the colinear nature of the variables, it is also desirable to drop the general time trend. The F-test for dropping these three innovation variables against the previous restricted equation is $F_{3,180} = 1.2$ and against the general model is $F_{9,174} = 0.94$. Both tests are acceptable. The resulting equation, which has slightly better diagnostic statistics, is:-

$$\begin{aligned}\Delta \ln M = {} & \underset{(2.84)}{0.602} - \underset{(3.14)}{0.232}\ \ln M_{-1} + \underset{(1.99)}{0.149}\ \ln M_{-2} \ \underset{(2.56)}{-0.168}\,(10^{-2}) r^{\phi}_{3MIB} \\ & + \underset{(3.27)}{0.109}\ln T^{*} \ \underset{(1.15)}{-0.993}(10^{-3})^{BS}/_{pop} \ \underset{(0.55)}{-0.109}(10^{-3})^{CA}/_{pop} \\ & + \sum_{i=1}^{6} \alpha_i \ln P_{-i}\end{aligned} \qquad (11)$$

where

$\alpha_1 = \underset{(0.34)}{-0.039}$ $\qquad$ $\alpha_4 = \underset{(1.87)}{-0.292}$

$\alpha_2 = \underset{(1.13)}{0.175}$ $\qquad$ $\alpha_5 = \underset{(0.78)}{0.123}$

$\alpha_3 = \underset{(0.41)}{0.064}$ $\qquad$ $\alpha_6 = \underset{(0.30)}{-0.0.34}$

$\bar{R}^{-2} = 0.824$, DW=2.01, SE(%)=0.52,

RSS = 0.01228, n = 210, k = 27, LM(12) = 5.53, HENDRY = 2.73

ϕ Sum of coefficients on the 3rd degree Almon lag

81. Examining the α coefficients on the (interpolated) consumer expenditure deflator suggests that we could proceed by taking the difference between lag two and lag four (and also between lag one and lag three). There is an economic and statistical rationale for such differencing of the interpolated consumer price data.

82. Over local data points the method of interpolation approximates to a linear interpolation of the data

$$IP_{t+i} \simeq \frac{3-i}{3} P_T + \frac{i}{3} P_{T+1}$$

where IP_{t+i} is the interpolated monthly value of the price index at the months t+i, i=1,2,3 and P_T and P_{T+1} are the observed quarterly price indices such that $T < t+i < T+1$.

$$\text{when i=1} \quad IP_{t+i+2} - IP_{t+i} = P_{T+1} - \frac{2}{3}P_T - \frac{1}{3}P_{T+1}$$

$$= \frac{2}{3}(P_{T+1} - P_T)$$

$$\text{when i=2} \quad IP_{t+i+2} - IP_{t+i} = \frac{2}{3}P_{T+1} + \frac{1}{3}P_{T+2} - \frac{1}{3}P_T - \frac{2}{3}P_{T+1}$$

$$= \frac{1}{3}(P_{T+2} - P_T)$$

$$\text{when i=3} \quad IP_{t+i+2} - IP_{t+i} = \frac{1}{3}P_{T+1} + \frac{2}{3}P_{T+2} - P_{T+1}$$

$$= \frac{2}{3}(P_{T+2} - P_{T+1})$$

Thus taking the difference in the second and fourth lags of the interpolated price index data can be interpretated as smoothing changes in the original quarterly data. Moreover, to the extent that only the second and fourth lags of the interpolated data are important, the interpolated data will draw only to a limited extent on quarterly price observations which are in the future relative to the dependent variable.

83. Imposing the restriction yields the result:

$$\Delta \ln M = \underset{(3.45)}{-0.578} \quad \underset{(3.32)}{-0.240} \ln M_{-1} \quad \underset{(2.14)}{+0.155} \ln M_{-2} \quad \underset{(3.27)}{-0.178}\,(10^{-2}) \; r_3^{\phi} \text{ MIB}$$

$$\underset{(3.31)}{+0.108} \ln T^* \quad \underset{(1.52)}{-0.101}(10^{-2}) \frac{BS}{pop} \quad \underset{(0.56)}{-0.973}\,(10^{-3}) \frac{CA}{pop} \qquad (12)$$

$$\underset{(0.57)}{-0.055} (\ln P - \ln P_{-2})_{-1} \quad \underset{(2.06)}{+0.197} (\ln P - \ln P_{-2})_{-2}$$

$$\bar{R}^2 = 0.827, \quad DW=2.00, \quad SE(\%)=0.51,$$

$$RSS= 0.01234, \quad n=210, \quad k=23, \quad LM(12)=5.05, \; HENDRY=2.66$$

ϕ Sum of coefficients on the 3rd degree Almon lag.

The restriction again easily passes the F test. In addition it appears that the difference in the price index term is only significant at lag two.

84. The parameters in equation (12) suggest that long-run homogeneity can be imposed on the transactions variable. Two types of homogeneity restrictions have been examined. The first imposes long-run homogeneity given the existing structure of the equation (equations 1 and 3 in table 6). The second imposes the somewhat more stringent restriction that the

TABLE 6

FINAL NOTES AND COIN EQUATIONS, 1982M1-1982M6

Geometric Lag Measure of Personal Disposable Income

	CONST	$\ln(M_{-1}/T^*)$	$\ln(M_{-2}/T^*)$	$\ln(M/T^*)_{-1}$	$(\ln P - \ln P_{-2})_{-2}$	CA/POP (10-2)	BS/POP (10-3)	r^{ϕ}_{3MIB} (10-2)	$\bar{R}^2$	DW	SE%	RSS	K	LM(12)	HENDRY	Long run interest rate coefficient r_{3MIB}
1.	-0.401	-0.208	0.100	-	0.265	-0.142		-0.221	0.825	1.98	0.52	0.01270	20	4.67	3.80	-0.020
	(3.24)	(2.92)	(1.45)		(3.89)	(2.69)	-	(4.34)								
2.	-0.392	-	-	-0.107	0.270	-0.136	-	-0.233	0.821	2.15	0.52	0.01301	19	6.41	4.15	-0.021
	(3.10)			(3.37)	(4.15)	(2.61)		(4.19)								
3.	-0.404	-0.222	0.119	-	0.220	-	-0.736	-0.214	0.827	1.99	0.51	0.01215	20	4.23	2.62	-0.021
	(3.66)	(3.11)	(1.77)		(3.086)		(3.08)	(4.26)								
4.	-0.412	-	-	-0.105	0.218	-	-0.742	-0.217	0.823	2.19	0.52	0.01287	19	6.78	2.82	-0.021
	(3.49)			(3.85)	(3.18)		(3.00)	(4.16)								
5.	-0.465	-0.201	0.082	-	0.146	-0.12 (10^{-2})		-0.20	0.820	2.02	0.52	0.01301	20	6.26	3.29	-0.017
	(3.93)	(2.78)	(1.21)		(2.06)	(3.42)		(3.92)								
6.	-0.419	-	-	-0.109	0.234	-0.10 (10^{-2})		-0.230	0.823	2.17	0.52	0.01289	19	6.50	3.2	-0.020
	(3.42)			(3.74)	(3.49)	(2.93)		(4.20)								

ϕ Sum of coefficients on 3rd degree Almon lag

Table 6A

FINAL NOTES AND COIN EQUATIONS, 1965M1-1982M6

Actual Measure of Personal Disposable Income

	CONST	$\ln(M_{-1}/T)$	$\ln(M_{-2}/T)$	$\ln(M/T)_{-1}$	$(\ln P - \ln P_{-2})_{-2}$	CA/POP (10-2)	BS/POP (10-3)	r^{ϕ} 3MIB (10-2)	$\bar{R}^2$	DW	SE%	RSS	K	LM(12)	Hendry	Long run interest rate coefficient r 3MIB
1.	-0.343	-0.212	0.118	-	0.240	-0.123	-	-0.19	0.825	1.99	0.52	0.01273	20	4.1	3.3	-0.02
	(3.29)	(3.00)	(1.73)		(3.44)	(3.44)		(4.00)								
2.	-0.341	-	-	-0.094	0.239	-0.122	-	-0.19	0.822	2.18	0.52	0.01305	19	6.1	3.5	-0.02
	(3.14)			(3.46)	(3.59)	(2.59)		(3.85)								
3.	-0.343	-0.233	0.134	-	0.203	-	-0.634	-0.19	0.827	2.00	0.51	0.01261	20	4.1	2.6	-0.021
	(3.66)	(3.11)	(1.99)		(2.78)		(2.99)	(3.84)								
4.	-0.347	-	-	-0.089	0.196	-	-0.641	-0.18	0.823	2.22	0.52	0.01294	19	6.2	2.8	-0.02
	(3.46)			(3.87)	(2.78)		(2.90)	(3.73)								
5.	-0.40	-0.206	0.102	-	0.122	-0.102	(10^{-2})	-0.17	0.821	2.02	0.52	0.0130	20	6.36	3.0	-0.016
	(4.01)	(2.84)	(1.51)		(1.68)	(3.41)		(3.47)								
6.	-0.391	-	-	-0.102	0.125	-0.10	(10^{-2})	-0.19	0.817	2.19	0.53	0.0134	19	6.81	3.2	-0.019
	(3.64)			(3.14)	(1.75)	(3.14)		(3.40)								

$^{\phi}$ Sum of coefficients on 3rd degree Almon lag

lagged dependent and transactions variables only enter in the form of a single lagged inverse velocity term, $\ln(M/T^*)_{-1}$ (equations 2 and 4 in table 6). The latter equation thus takes the form of an error correction model. The innovation variables CA/pop and BS/pop appear colinear and this stage also examines the effect of excluding either of the variables. CA/pop is included in equations 1 and 2 and BS/pop in equations 3 and 4 in table 6. Table 6A presents the same results when the geometric lag measure of personal disposable income is replaced by the actual (current or lagged) measure of personal disposable income.

85. All of the restrictions imposed in tables 6 and 6A are data consistent[1] when compared with the general model. The results using the actual measure, rather than the geometric lag measure, of personal dispoable income are very close: the speed of adjustment in the former equation is slightly slower in keeping with the hypothesis that the geometric lag measure simply adjusts the lag length on income. The percentage standard errors on the equations including the geometric lag are very marginally lower than on the equations with the actual measure of personal disposable income. The insignificant coefficient on $\ln M_{-2}/T^*$ in equations 1 and 3 inclines us towards a slight preference for the error correction model (equations 2 or 4). The $\bar{R}^2$ in the equations including BS/pop is very marginally smaller than in the equations including CA/pop but in other respects the specification of the equations including BS/pop or CA/pop are almost identical. It is impossible to decide on the alternative specifications in terms of goodness of fit. Equations 5 and 6 in the tables include the average of the two innovation variables. These results are also very close to the ones including either BS/pop or CA/pop on its own. None of the equations have any trouble passing the Hendry forecasting test or the Lagrange multiplier test for autocorrelation.

86. The long-run solution in a non inflationary steady state, from the two error correction equations, 2 and 4 in table 6, are

$$M = 0.026T \exp\left(r^{-0.021} \left(\frac{CA}{pop}\right)^{-0.013}\right)$$

and

$$M = 0.02T \exp\left(r^{-0.021} \left(\frac{BS}{pop}\right)^{-0.007}\right)$$

---

[1] The error correction model including the geometric lag measure of income and the equations including the current level of personal disposable income are not strictly nested within the general equation. However, the similarity of the results suggests that these equations certainly would be acceptable against more general equation forms.

87. The long-run coefficient on the CA/pop variable, -1.3 percent, seems consistent with the idea that this variable acts as a modifier for the measure of transactions in the equation.

One notable feature of these equations, and the previous more general specifications, is the significance of the interest rate term. The stability of the interest rate effect is examined below. Another feature is the positive inflation effect in the short run implying a lagged response in the growth of cash demand to inflation ie in the short-run real cash holdings decline with inflation. In the long-run velocity is however positively related to steady state inflation, as can be shown by reparameterising equation 2 in table 6 as follows:

$$\frac{M}{T} = 0.9\left(\frac{M}{T}\right)_{-1} - 0.083\Delta T + 0.045\Delta p - 0.23r$$

Assuming, in the steady state that $T = a + \Delta p$

and $r = b + \Delta p$ gives

$$\frac{M}{T} = 0.9\left(\frac{M}{T}\right)_{-1} - 0.268\,\Delta p + c$$

, where c is some constant, and the steady state solution

$$\frac{M}{T} = 10c - 2.68\,\Delta p$$

This equation implies that a permanent 1 percent increase in the annual rate of inflation, which is fully reflected in nominal interest rates and personal disposable income, increases the velocity of notes and coin by 2.7 percent in the long-run. The effect builds up gradually with half of the response occurring after 9 months.

88. Chart 7 shows the fitted values of the monthly growth of notes and coin in circulation outside the monetary sector 1965M1 - 1982M6, plus the out of sample dynamic forecast 1982M7 - 1982M12 and compares these with the actual values. As this chart is dominated by seasonal fluctuations, the fit of the estimated equation is illustrated better when the seasonal influences are removed. This is done in chart 8 using the estimated coefficients on the eleven seasonal dummies included in the regression equation averaged to sum to zero. The fit of the equation is reasonably close, although the actual series is much more erratic than the fitted series, particularly during the early 1970s and in the beginning of 1978 and 81. Many of these erratic fluctations can be traced to disturbances associated with the issue and withdrawal of new or redesigned notes (see Annex 1) which would be expected temporarily to distort the demand for notes and coin in circulation. For example, the outlying points at the beginning of 1971 may be associated with the decimalisation of the currency, those in mid-1973 with the withdrawal of old series £5 notes and the erratic fluctions in 1978 and 1981 with the issue of new £1 and £50 notes respectively. The main

CHART 7

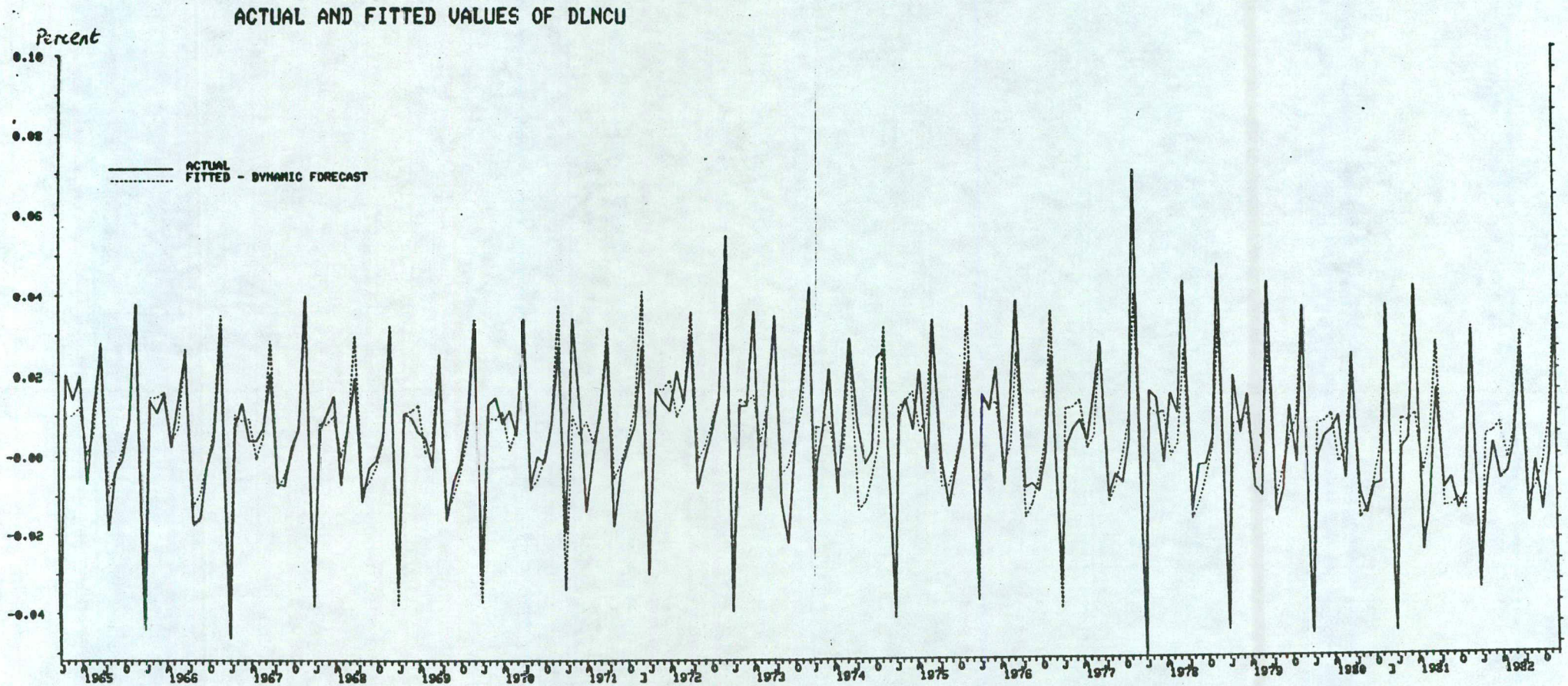
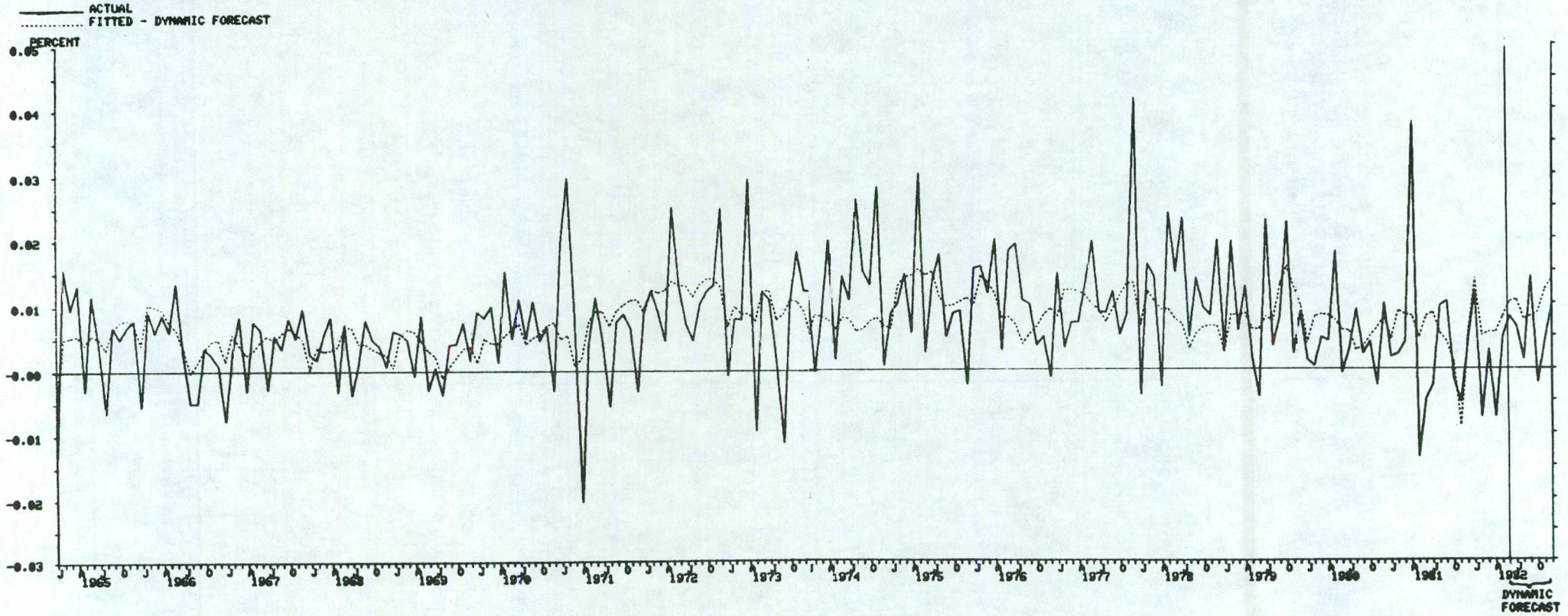

ACTUAL AND FITTED VALUES OF DLNCU
Percent
0.10
0.08
0.06
0.04
0.02
-0.00
-0.02
-0.04
ACTUAL
FITTED - DYNAMIC FORECAST
1965
1966
1967
1968
1969
1970
1971
1972
1973
1974
1975
1976
1977
1978
1979
1980
1981
1982

CHART 8

ACTUAL AND FITTED VALUES OF MONTHLY GROWTH OF NOTES AND COIN
DESEASONALISED USING SEASONAL REGRESSION DUMMIES



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systematic distortion occurs at the beginning of 1971 and, because of the possible data distortion, it seems appropriate to include dummy variables for the first four months of 1971 in subsequent runs of the equation.

89. A similar testing down procedure was followed for the aggregate M0 equation but as already explained (paragraph 64), in testing the equation we were guided by the results for notes and coin. The final form M0 equations including BS/pop or CA/pop or the average of those variables are shown in the table 7, when the geometric lag measure of income is used, and in table 7A, when the actual measure of personal disposable income is included in the regressions. The F tests for the restrictions imposed in table 7 against the most general equation are for equation 1, $F_{22, 172} = 0.69$, and for equation 3, $F_{22, 172} = 0.64$. Both tests are easily acceptable. There is again little difference between the results in table 7 and 7A, although the geometric lag measure improves on the overall fit of the MO equation.

90. The error correction models for M0 (equations 2, 4 and 6) appear somewhat better specified than equations 1, 3 and 5. Comparing the equations including BS/pop or CA/pop, the equation with CA/pop passes the LM test for autocorrelation while the other equations just fail at the 95 per cent confidence level, but in other respects the results are very similar. The larger LM test statistics and standard errors on the M0 equations, compared with the notes and coin regressions, may imply that variables are omitted in the M0 equation. This may be reasonable as it is unlikely that the bankers' balance and till money components of M0 would be fully explained by arguments in the personal sector demand for money (Annex 2 examines the possible reasons for fluctuations in bankers' balances and till money). There is less evidence of a significant inflation effect in the MO equations compared with the notes and coin regressions. The long-run interest rate coefficient in the M0 equation is about one third smaller than in the notes and coin equation, but the sum of the short run coefficients on the Almon lag is significant. The positive (expected) coefficient on the shift dummy for Competition and Credit Control indicates that the 8 per cent cash ratio deposit requirement, imposed before September 1971, raised holdings of M0 by about 10 per cent compared with post September 1971, when our data on M0 have been adjusted downwards by the 1½ per cent reserve asset ratio. The 10 per cent shift effect is not implausable. The dummy variable for the change in the monetary control regime in August 1981 is never significant. The small negative coefficient is expected since we have probably overcorrected for holdings of non-operational bankers' balances by subtracting the full 1½ per cent reserve asset ratio before August 1981 (see section V).

91.Chart 9 plots the actual and fitted values from regression 2 in table 7 for the monthly growth of M0, deseasonalised by the estimated seasonal dummies. The fit of the M0

TABLE 7

FINAL Mo EQUATION: 1965M1 - 1982M6

Geometric lag measure of transactions

	CONST	$\ln (M_{-1}/T^*)$	$\ln (M_{-2}/T^*)$	$\ln (M/T^*)_{-1}$	CA/POP (10^{-2})	BS/POP (10^{-2})	$(\ln P - \ln P_{-2})$	r^{ϕ} 3MIB (10 - 2)	DCCC	DMCR	$\bar{R}^2$	SE(%)	DW	LM(12)	Hendry	Long run interest rate coefficient
1.	-1.028	-0.364	0.076	-	-0.530	-	0.229	-0.347	0.032	-0.006	0.69	0.75	2.05	22.7*	2.8	-0.012
	(5.14)	(5.04)	(1.09)		(4.89)		(1.65)	(3.30)	(4.07)	(-0.88)						
2.	-1.09	-	-	-0.306	-0.562	-	0.264	-0.385	0.031	-0.006	0.69	0.75	2.12	19.7	3.2	-0.013
	(5.85)			(6.09)	(5.51)		(1.91)	(3.63)	(4.54)	(0.86)						
3.	-1.146	-0.373	0.082	-	-	-0.279	0.159	-0.416	0.036	-0.011	0.69	0.75	2.08	23.6*	2.5	-0.014
	(5.24)	(5.14)	(1.18)			(4.98)	(1.12)	(3.85)	(4.43)	(1.67)						
4.	-1.267	-	-	-0.322	-	-0.307	0.186	-0.468	0.039	-0.012	0.69	0.75	2.15	21.6*	2.7	-0.015
	(6.06)			(6.29)		(5.72)	(1.33)	(4.29)	(5.12)	(1.79)						
5.	-1.179	-0.377	0.069	-	-0.40 (10^{-2})		-0.01	-0.345	0.034	-0.008	0.69	0.75	2.06	22.3*	2.2	-0.011
	(5.50)	(5.15)	(1.00)		(5.39)		(0.07)	(3.24)	(4.28)	(1.18)						
6.	-1.236	-	-	-0.324	-0.41 (10^{-2})		0.209	-0.443	0.039	-0.01	0.69	0.75	2.13	20.6	2.8	-0.014
	(6.07)			(6.30)	(5.74)		(1.51)	(4.14)	(5.02)	(1.51)						

ϕ Sum of coefficients on 3rd degree Almon lag

* = significant test statistic at 95 per cent confidence level

Table 7A

Final MO Equation 1965M1-1982M6

Actual measure of personal disposable income

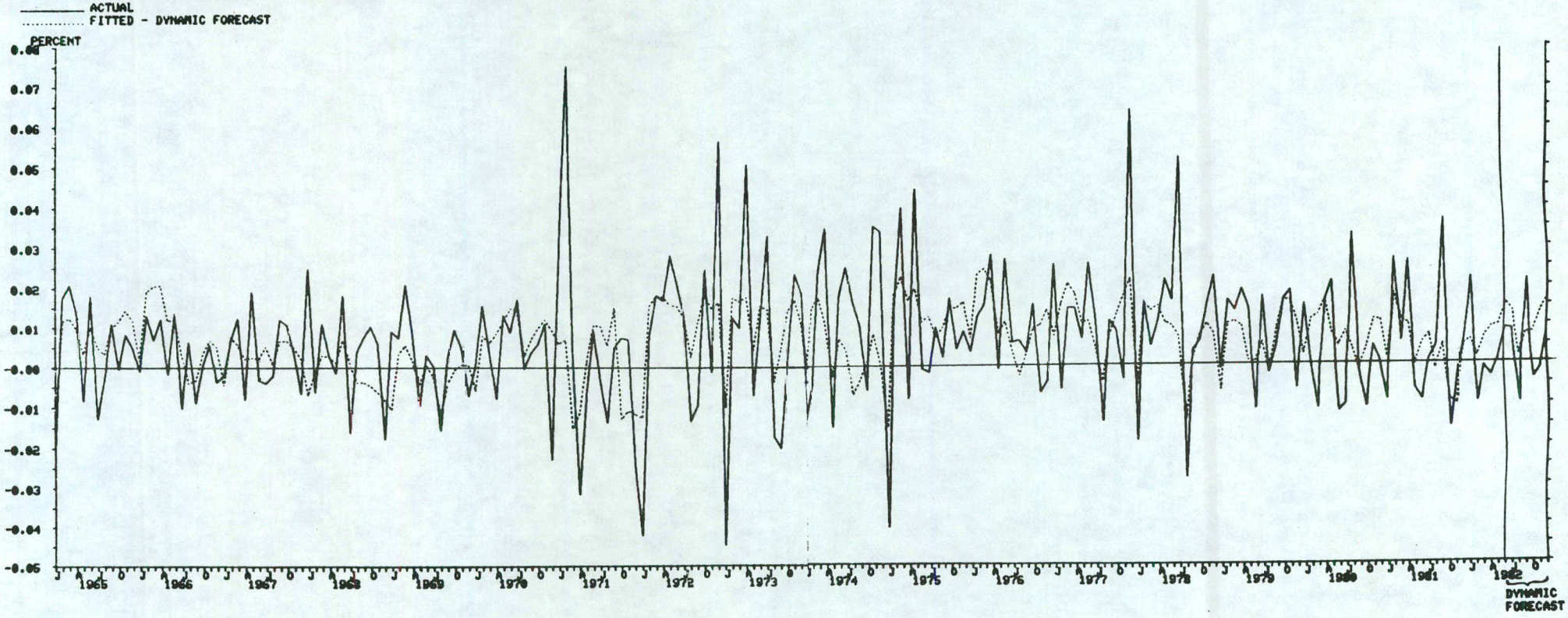
	CONST	$\ln (M_{-1}/T)$	$\ln (M_{-2}/T)$	$\ln (M/T)_{-1}$	CA/POP (10^{-2})	BS/POP (10^{-2})	$(\ln P - \ln P_{-2})_{-2}$	r^{ϕ}_{3MIB} (10-2)	DCCC	DMCR	$\bar{R}^2$	SE(%)	DW	LM(12)	Hendry	Long run interest rate coefficient
1.	-0.798	-0.339	0.144	-	-0.415	-	0.187	-0.263	0.025	-0.005	0.68	0.75	2.07	26.3*	2.5	-0.012
	(4.46)	(4.69)	(1.64)		(4.19)		(1.32)	(2.58)	(3.49)	(0.72)						
2.	-0.913	-	-	-0.257	-0.474	-	0.204	-0.299	0.027	-0.005	0.68	0.75	2.18	23.8*	2.8	-0.012
	(5.35)			(5.62)	(4.99)		(1.46)	(2.90)	(4.08)	(0.79)						
3.	-0.857	-0.341	0.121	-	-	-0.21	0.139	-0.313	0.028	-0.009	0.68	0.75	2.09	27.3*	2.41	-0.014
	(4.45)	(4.69)	(1.75)			(4.18)	(0.96)	(3.04)	(3.64)	(1.30)						
4.	-1.02	-	-	-0.259	-	-0.25	0.142	-0.362	0.033	-0.010	0.68	0.75	2.21	25.7*	2.6	-0.014
	(5.41)			(5.67)		(5.05)	(1.00)	(3.51)	(4.47)	(1.52)						
5.	-0.908	-0.350	0.111	-	-0.313 (10^{-2})		-0.05	-0.245	0.027	-0.006	0.68	0.75	2.08	26.2*	2.2	-0.010
	(4.81)	(4.75)	(1.60)		(4.69)		(0.36)	(2.40)	(3.56)	(0.88)						
6.	-1.041	-	-	-0.273	-0.358 (10^{-2})		-0.048	-0.248	0.031	-0.006	0.68	0.75	2.19	23.5*	2.3	-0.009
	(5.63)			(5.87)	(5.40)		(0.34)	(2.80)	(4.27)	(1.01)						

ϕ Sum of coefficients on 3rd degree Almon lag

* = significant test statistic at 95 per cent confidence level

CHART 9

ACTUAL AND FITTED VALUES OF MONTHLY GROWTH OF M0
DESEASONALISED USING SEASONAL REGRESSION DUMMIES



equation is reasonably good considering the erratic nature of month to month changes in the series. As for the notes and coin equation, there are a number of outlying points in the early 1970s.

Unemployment and ratchet effects

92. Work on the demand for narrow money in the United States (eg Goldfeld 1973) suggests that "ratchet" effects may be important. The idea is that there are fixed costs involved in altering cash management techniques. People will only change to more efficient cash management technology when they find it worthwhile to do so eg when interest rates rise to high levels. But once new techniques are adopted, firms and individuals will not necessarily abandon them if interest rates subsequently fall. Thus there may be a ratchet effect in the demand for money. A simple way to allow for this is to introduce the previous peak level of interest rates.

93. Another hypothesis to explain the slower growth of notes and coin, examined in the Bank of England work (Bank of England 1982), is the influence of unemployment on the volume of wages paid in cash (see paragraph 12). The time series for both the previous peak level of short-term interest rates and the percentage unemployment rate (excluding school leavers) take the form of upward trends (see chart 10). They are thus to some extent correlated with the rising income velocity of notes and coin. The importance of these factors is examined by entering the previous peak level of the three-month interbank rate (RRAT) and the percentage unemployment rate (excluding school leavers, URATE) into the final form notes and coin equation. Two sample periods are examined: the whole sample, 1965M1-1982M6, and a recent subperiod 1975M8-1982M6. The results are given in table 8.

CHART 10: PREVIOUS HIGHEST SHORT TERM INTEREST RATE AND PERCENTAGE UNEMPLOYMENT RATE

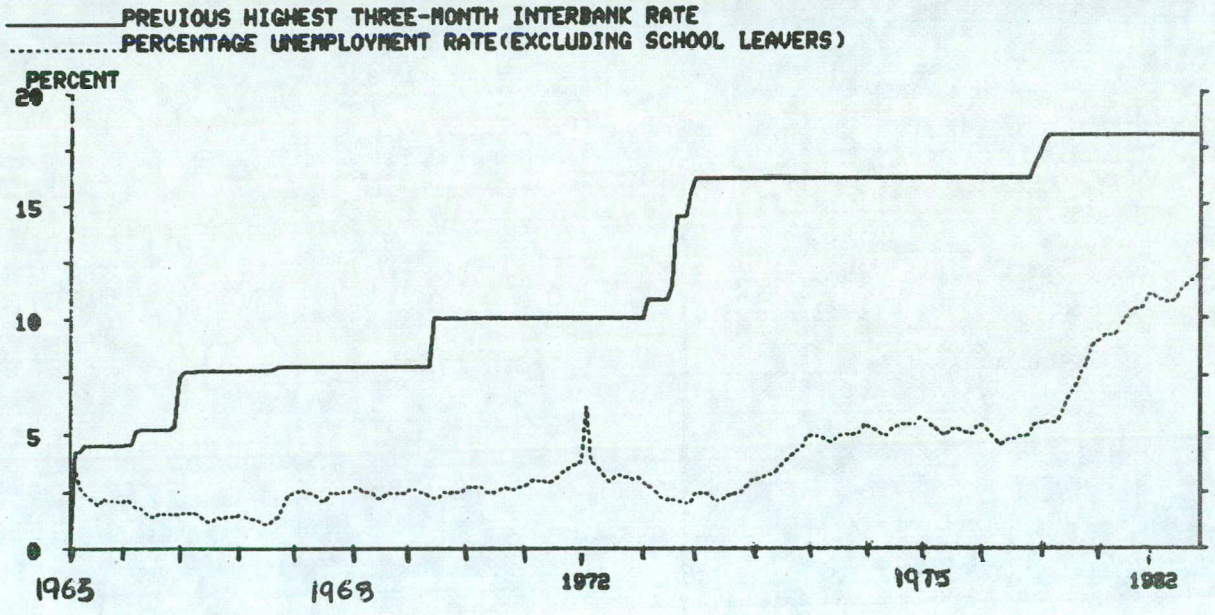


Table 8

THE EFFECT OF AN INTEREST RATE RATCHET AND UNEMPLOYMENT IN THE CASH EQUATION

	$\ln(M/_T^*)_{-1}$	CAPOP (10-2)	$\ln(P - \ln P_{-(2)})_{-2}$	r^{ϕ}_{3MIB} (10-2)	RRAT (10-2)	URATE (10-2)	$\bar{R}^2$	SE %	DW	$LM^{(12)}$	Hendry
Estimated Period	- 0.107	- 0.136	0.265	- 0.221	-	-	0.825	0.52	1.98	4.7	3.8
1965M01 - 1982 M06	(3.37)	(2.61)	(3.89)	(2.69)							
	- 0.098	- 0.166	0.169	- 0.271	0.153		0.828	0.51	2.29	11.8	3.3
	(3.14)	(3.19)	(2.33)	(4.96)	(2.97)	-					
	- 0.263	- 0.332	1.569	- 0.241		- 0.284	0.644	0.75	1.86	56.0**	7.8
	(6.22)	(4.62)	(0.18)	(2.97)	-	(2.27)					
	- 0.088		0.019	- 0.137		- 0.426	0.606	0.79	2.11	75.6**	9.2
	(4.44)	-	(0.20)	(1.67)	-	(3.34)					
Estimated period	- 0.323	- 0.438	0.108	- 0.622	-	-	0.822	0.55	2.29	21.4*	11.3
1975M5 - 1982M6	(3.63)	(3.56)	(1.01)	(4.28)							
	- 0.323	- 0.477	0.141	- 0.763	0.529		0.822	0.55	2.32	27.0*	12.9*
	(3.66)	(3.71)	(1.30)	(3.87)	(1.06)	-					
	- 0.619	- 0.193	- 0.015	- 1.09		0.184	0.748	0.65	1.80	21.7*	29.5*
	(7.86)	(6.71)	(0.14)	(7.27)	-	(0.86)					
	- 0.213		0.120	- 0.365		- 0.624	0.571	0.85	2.00	34.0**	7.1
	(3.24)	-	(0.86)	(2.53)	-	(2.69)					

ϕ Sum of Almon coefficients

94. Over the whole sample period both variables are significant when entered individually into the preferred cash equation including the per capita number of bank current accounts. The RRAT variable in however wrong signed and the unemployment rate substitutes mainly for the inflation term, which becomes non-significant. In the recent sample period neither of the variables is significant when included with $^{CA}/_{pop}$. The inclusion of the unemployment rate markedly worsens the overall fit of the equation and also introduces severe autocorrelation into the equations for the whole sample period. It is clear that in these restricted equations the unemployment hypothesis is rejected in favour of the importance of direct measures of financial innovation. The positive sign on RRAT over the whole sample period is offset by larger negative coefficients on both $^{CA}/_{pop}$ and short-term interest rate and a smaller positive coefficient on the inflation term and there is a slight worsening in the standard error of the equation.

Stability of the notes and coin and M0 equations

95. The Hendry forecasting test, already reported, indicates that the estimated notes and coin and M0 equations forecast very well recent time periods and are dynamically stable over those periods. Two tests are used to examine the historical stability of the equations.

96. Chow tests. F tests are used to compare the structural stability of the equations fitted to a number of sub-periods and the whole sample. The first two sub-periods split the sample period in 1975M8. This division corresponds with the period for which data are available for all non interest bearing monetary aggregates. The sub periods are:

i) 1975M8 - 1982M6

ii) 1965M1 - 1975M7

The last three periods are designed to divide the total sample roughly into three. The sub periods are:

iii) 1965M1 - 1971M9, the period prior to the Competition and Credit Control arrangements;

iv) 1971M10 - 1976M12, the period after Competition and Credit Control but before monetary targeting;

v) 1977M1 - 1982M12

97. The results for notes and coin are shown in table 9 and for M0 in table 10. There appears to have been a structural break in both the M0 and notes and coin equations in 1971 but none in the earlier 1970s. The Chow tests are failed because the notes and coin and M0 equations fit the 1960s significantly better than the 1970s (the absolute standard errors on the 1960s regressions are one third to one half smaller than on the regressions fitted to other sub-periods or the whole sample). The failure of the Chow test should not on its own

Table 9

STABILITY OF THE NOTES AND COIN EQUATION $\phi\phi$

Estimation Period	$\ln(M/PT^*)_{-1}$	BS/PCP (10 -2)	r^{ϕ}_{3MIB} (10 -2)	$(\ln p - \ln p_{-2})_{-2}$	$\bar{R}^2$	DW	SE(%)	LM(12)	RSS (df)	Chow tests A	B	C	D	Long-run interest rate coefficient (10 -2)
1. 1965M1-1982M6	-0.106 (3.89)	-0.074 (3.05)	-0. 219 (4.38)	0.222 (3.38)	0.84	2.27	0.50	11.4	0.01128 (184)					-2.07
2. 1975M8-1982M6	-0.327 (3.38)	-0.213 (3.28)	-0.668 (4.0)	0.112 (1.00)	0.85	2.37	0.55	24.5*	0.00458 (64)	0.78	1.64*			-2.04
3. 1965M1-1975M7	-0.275 (4.20)	-0.331 (3.50)	0.023 (0.25)	0.031 (0.22)	0.88	2.21	0.41	28.8*	0.00441 (101)	1.28				0.08
4. 1965M1-1971M9	-0.212 (3.36)	-0.212 (2.25)	-0.098 (0.61)	-0.013 (0.07)	0.93	2.27	0.53	13.9	0.00126 (55)	3.64**		3.55**	3.03**	-0.46
5. 1971M10-1976M12	-0.154 (1.48)	-0.087 (0.79)	-0.229 (0.94)	0.172 (0.56)	0.73	2.22	0.49	13.9	0.00358 (44)	0.67			1.17	-1.49
6. 1977M101982M12	-0.351 (3.28)	-0.283 (3.32)	-0.558 (3.51)	0.118 (1.00)	0.81	2.27	0.51	10.9	0.00368 (53)	NA				-1.59

Chow test A is against the whole sample period
B compares equations (2) and (3)
C " " (4) and (5)
D " equation (6) with equations (4) and (5)

* indicates that the F test is significant at a 5 per cent confidence level
** " " " " " " " " " " " " " " "
NA test not applicable as the sample periods are not nested.

$\phi\phi$ Eqations include the geometric lag measure of personal disposable income

ϕ Sum of Almon coefficients

Table 10

STABILITY OF Mo EQUATION $\phi\phi$

Estimation Period	$\ln(M/T^*)_{-1}$	BS/POP (10 -2)	r^{ϕ}_{3MIB} (10 -2)	$(\ln p - \ln p_{-2})_{-2}$	$\bar{R}^2$	DW	SE(%)	LM(12)	RSS (df)	Chow tests A	Chow tests B	C	D	Long-run content rate coefficient (10 -2)
1. 1965M1-1982M6	-0.323 (6.37)	-0.309 (5.86)	-0.474 (4.65)	0.178 (1.37)	0.74	2.27	0.68	25.2*	0.0351 (182)					-1.47
2. 1975M8-1982M6	-0.660 (5.41)	-0.554 (5.15)	-1.104 (5.44)	0.148 (0.87)	0.72	2.21	0.64	21.7*	0.0101 (63)	1.31	0.91			-1.67
3. 1965M1-1975M7	-0.445 (5.92)	-0.746 (4.61)	0.182 (0.77)	-0.190 (0.64)	0.77	2.23	0.64	21.9*	0.0176 (100)	1.21				0.41
4. 1965M1-1971M9	-0.299 (3.63)	-0.332 (2.39)	-0.353 (1.22)	-0.006 (0.02)	0.83	2.37	0.54	11.5	0.0037 (55)	3.17**		3.81**	2.46**	-1.18
5. 1971M10-1976M12	-0.439 (3.56)	-0.524 (2.62)	-0.308 (0.72)	0.212 (0.38)	0.72	2.41	0.61	23.2*	0.0113 (44)	0.67			1.55	-0.70
6. 1977M1-1982M12	-0.689 (5.17)	-0.648 (2.27)	-0.947 (4.53)	0.156 (0.85)	0.73	1.98	0.62	9.3	0.0086 (52)	NA				-1.57

See notes to table 9

$\phi\phi$ Equations include the geometric lag measure of personal disposable income

ϕ Sum of Almon coefficents

be taken to imply an unstable relationship (but other tests reported below point to this conclusion). The test indicates evidence of heteroscedastic errors comparing the 1960s and 1970s which may be a feature of the underlying data. The implication, which is common to a number of studies of the UK financial system, is that financial relationships became much less well determined in the early 1970s compared with the 1960s. The regression estimates for the notes and coin equation 1971-1976 are particularly poorly determined, which is not surprising given the erratic nature of the series for notes and coin during this period.

98. Turning to the individual parameter estimates, in all the equations (except the notes and coin equation 1971-76) the innovation variable, BS/pop, and the lagged inverse velocity terms are significant. The speed of adjustment in the equation fitted to the whole sample period is, however, slower than in the sub-periods. At the same time the inflation variable is significant only in the notes and coin equation fitted to the whole sample period. These different findings could be interpreted as suggesting either

i) that the equation estimated over the whole sample period represents the "true" relationship, and that it takes a long-run of data, spanning markedly different monetary control and inflationary ennvironments to identify it. For example, the inflation term may only appear significant when the equation is fitted over periods of markedly different inflation experience;

or ii) that the demand for notes and coin has actually shifted between the 1960 and 70s in ways not captured by the equations and that the slower adjustment speed and inflation effect in the equation fitted to the whole sample is indicative of the structural shift. In this case it would be appropriate to treat the equations fitted to recent data as more representative of the current demand for notes and coin.

99. The equations fitted to the whole sample and samples drawn from the mid 1970s onwards have significant interest rate effects. The long-run coefficient on the interest rate in the cash equation fitted to 1971-76, although non-signficant, is also very close to the estimate from the equation fitted to 1977-82. The evidence certainly points to fairly well determined interest semi-elasticities in recent years. The results for the whole sample period also suggest more general interest sensitivity of the demand for notes and coin which the equations fitted to earlier short sub-periods do not identify.

100. Stability of the interest rate response. The stability of the interest sensitivity of the equations is examined further by estimating the equations over different overlapping sample periods. The periods are varied by:

(i) successively dropping blocks of one year's data from the beginning of the sample period;

(ii) successively dropping blocks of one year's data from the end of the sample period;

and(iii) by estimating the equations over a six year data period beginning in 1965 and then "rolling" the estimation period forward one year at a time. The long-run coefficients and t statistics on the short-run coefficients on interest rates are shown in table 11.

101. Dropping observations from the beginning of the sample period leads to remarkable stability in the long-run interest rate coefficient (results A in table 11). However, dropping observations from the end of the data set (results B) causes the long-run interest rate coefficient and the significance of the sum of the short-term interest rate coefficients to decline. The "rolling" regressions (results C in the table) indicate the interest sensitivity of the equations starting in about 1974 and that equations fitted 1965-end 1970 have fairly large interest sensitivities but that the equations fitted to the short sample periods between 1966 and 1973 do not exhibit an interest rate response.

102. These results suggest that it would be necessary to follow a more complex approach when entering the interest rate term, than simply including a third degree Almon lag, to derive an interest rate effect that is invariant to the time period used for estimation. In particular, including the interest rate in levels may be inappropriate when interest rates are low and agents are at their theoretical corner solution when it does not pay them to shift between cash and interest earning assets. Some initial experimentation with a non linear form for the interest rate term has not, however, met with success[1]. The present evidence points to a stable interest rate response in recent years and also some interst sensitivity in the 1960s. The problematic years appear to be 1971-73 which are common to all the rolling regressions fitted 1966-73. It may be noted that these are the years most distorted by changes to the denomination of notes and coin in circulation and are a particularly turbulent period in UK financial markets.

Mean and cumulative response functions

103. The mean lags and long-run response of the demand for notes and coin and M0 to interest rates and transactions implied by the equations estimated over the whole sample period and the sub-period beginning in 1975M8 are shown in table 12. Chart 11 shows the cumulative response functions of the notes and coin and M0 equations, fitted to the later sub-period, to interest rates and transactions.

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[1] The non linear interest rate term is of the form $Z = \text{cost } (\log (1 + R))^a$ Z approaches R^a as R rises and o as R falls, see Brayton et al (1983).

Table 11

STABILITY OF THE LONG-RUN INTEREST RATE RESPONSE AND SIGNIFICANCE OF THE SUM OF ALMON COEFFICIENTS

EFFECT OF DROPPING OBSERVATION

A
From the beginning of the data set

	Notes and Coin		MO		B From the end of the data set	Notes and Coin		MO	
Starting date for regression	Long-run coefficient	(t-statistic)$^{\emptyset}$	Long-run coefficient	(t-statistic)$^{\emptyset}$	finishing date for the regression	Long-run coefficient	(t-statistic)$^{\emptyset}$	Long-run coefficient	(t-statistic)$^{\emptyset}$
1965 Jan	- 0.0208	(4.4)	- 0.0124	(4.0)	1982 June	- 0.0208	(4.4)	- 0.0124	(4.0)
1966 Jan	- 0.0209	(4.3)	- 0.0127	(4.0)	1981 June	- 0.0169	(3.4)	- 0.0117	(3.5)
1967 Jan	- 0.0213	(3.9)	- 0.0127	(4.1)	1980 June	- 0.0111	(2.3)	- 0.0095	(2.6)
1968 Jan	- 0.0215	(3.7)	- 0.0130	(4.0)	1979 June	- 0.0052	(1.0)	- 0.0071	(1.6)
1969 Jan	- 0.0221	(3.4)	- 0.0128	(4.0)	1978 June	- 0.0054	(1.2)	- 0.0057	(1.2)
1970 Jan	- 0.0237	(2.7)	- 0.0125	(4.0)	1977 June	- 0.0049	(1.1)	- 0.0047	(0.9)
1971 Jan	- 0.0237	(2.6)	- 0.0131	(4.1)	1976 June	- 0.0060	(1.4)	- 0.0063	(1.0)
1972 Jan	- 0.0280	(2.2)	- 0.0123	(4.4)	1975 June	- 0.0006	(0.1)	- 0.0002	(0.0)
1973 Jan	- 0.0250	(2.3)	- 0.0130	(4.2)	1974 June	- 0.0012	(0.3)	- 0.0052	(0.7)
1974 Jan	- 0.0190	(3.7)	- 0.0145	(4.5)	1973 June	- 0.0026	(0.6)	- 0.0083	(0.8)
1975 Jan	- 0.0190	(4.2)	- 0.0146	(6.2)	1972 June	- 0.0056	(1.2)	- 0.0176	(1.7)

C

Six year rolling regressions

	Notes and Coin		MO	
Starting year for regression*	Long-run coefficient	(t - statistic)$^{\emptyset}$	Long-run coefficient	(t - statistic)$^{\emptyset}$
1965	- 0.012	(1.31)	- 0.0249	(2.4)
1966	0.0095	(0.85)	- 0.0075	(0.38)
1967	-0.0035	(0.49)	- 0.011	(0.67)
1968	0.0037	(0.72)	- 0.0051	(0.38)
1969	0.0049	(0.99)	0.0021	(0.19)
1970	- 0.004	(0.74)	- 0.0018	(0.17)
1971	- 0.008	(0.43)	- 0.00035	(0.03)
1972	- 0.0068	(0.61)	- 0.0079	(2.2)
1973	0.0082	(0.56)	- 0.00064	(0.1)
1974	- 0.027	(1.74)	- 0.023	(2.06)
1975	- 0.022	(3.01)	- 0.016	(5.78)
1976	- 0.017	(4.28)	- 0.016	(6.56)
1977	- 0.016	(3.73)	- 0.014	(4.83)

* Regression periods run for six years

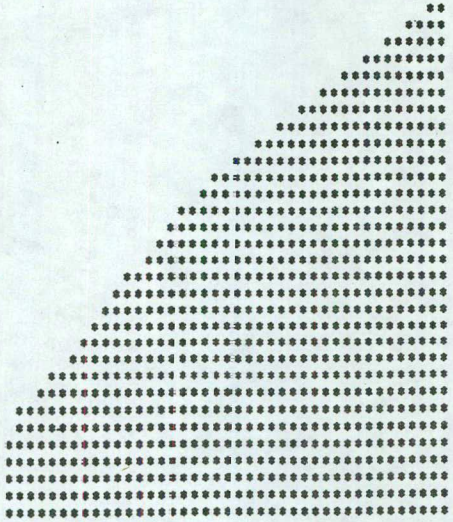
Chart 11

Cumulative Response functions in total notes and coin and Mo questions

Notes and Coin

Three-month inter-bank rate

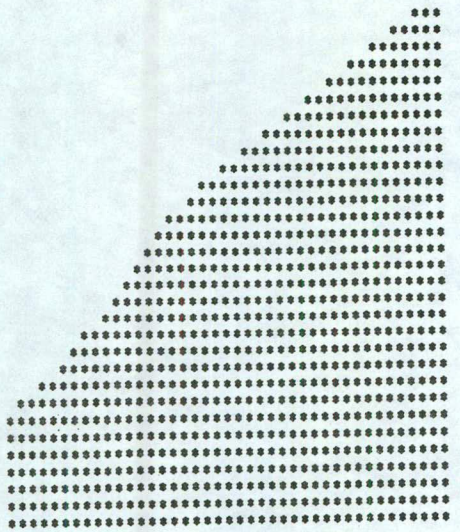
0)	-0.4711-03
1)	-0.1239-02
2)	-0.2185-02
3)	-0.3227-02
4)	-0.4310-02
5)	-0.5394-02
6)	-0.6455-02
7)	-0.7476-02
8)	-0.8445-02
9)	-0.9357-02
10)	-0.1021-01
11)	-0.1100-01
12)	-0.1174-01
13)	-0.1243-01
14)	-0.1307-01
15)	-0.1367-01
16)	-0.1425-01
17)	-0.1482-01
18)	-0.1539-01
19)	-0.1596-01
20)	-0.1657-01
21)	-0.1723-01
22)	-0.1795-01
23)	-0.1876-01
24)	-0.1930-01
25)	-0.1966-01
26)	-0.1991-01
27)	-0.2007-01
28)	-0.2018-01
29)	-0.2026-01
30)	-0.2031-01



Mo

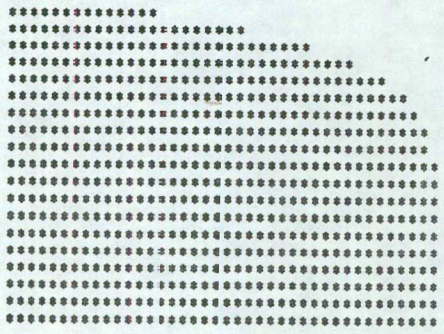
Three-month inter-bank rate

0)	-0.5315-03
1)	-0.1288-02
2)	-0.2148-02
3)	-0.3055-02
4)	-0.3977-02
5)	-0.4893-02
6)	-0.5785-02
7)	-0.6641-02
8)	-0.7451-02
9)	-0.8208-02
10)	-0.8907-02
11)	-0.9549-02
12)	-0.1013-01
13)	-0.1067-01
14)	-0.1116-01
15)	-0.1161-01
16)	-0.1205-01
17)	-0.1248-01
18)	-0.1293-01
19)	-0.1341-01
20)	-0.1396-01
21)	-0.1460-01
22)	-0.1535-01
23)	-0.1627-01
24)	-0.1658-01
25)	-0.1668-01
26)	-0.1672-01
27)	-0.1673-01
28)	-0.1673-01
29)	-0.1673-01
30)	-0.1673-01



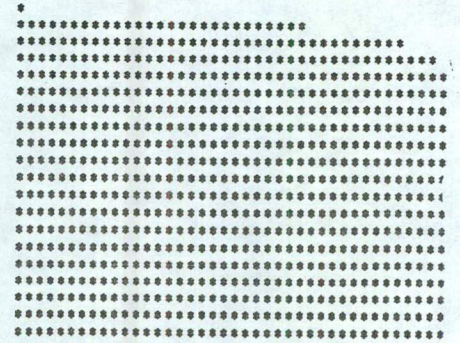
Geometric lag on personal disposable income

0)	0.1380-26
1)	0.3274+00
2)	0.5477+00
3)	0.6958+00
4)	0.7954+00
5)	0.8624+00
6)	0.9075+00
7)	0.9378+00
8)	0.9581+00
9)	0.9718+00
10)	0.9811+00
11)	0.9873+00
12)	0.9914+00
13)	0.9942+00
14)	0.9961+00
15)	0.9974+00
16)	0.9982+00
17)	0.9988+00
18)	0.9992+00
19)	0.9995+00



Geometric lag on personal disposable income

0)	0.6976-27
1)	0.6599+00
2)	0.8844+0(
3)	0.9607+0(
4)	0.9866+0
5)	0.9955+0
6)	0.9985+0(
7)	0.9995+00
8)	0.9998+00
9)	0.9999+00
10)	0.1000+01
11)	0.1000+01
12)	0.1000+01
13)	0.1000+01
14)	0.1000+01
15)	0.1000+01
16)	0.1000+01
17)	0.1000+01
18)	0.1000+01
19)	0.1000+01



104. The slower speed of adjustment of the notes and coin and M0 equations fitted to the whole sample period is reflected in the longer mean response lags compared with the equation fitted to data beginning in the mid 1970s. The mean response lags of 11 months on interest rates and 1-3 months on transactions from the latter estimates are more plausable, although the lag on interest rates seems rather long. The faster speed of response in the MO equation is difficult to justify economically and probably reflects some mis-specification in this equation as already evidenced by the poorer LM test statistics. In the notes and coin equation fitted to recent data one quarter of the response (semi elasticity -0.005) occurs after five months and a third after seven months (see chart 11). The speed of response from the geometric measure of transactions to money demand is rapid over the shorter estimation period.

Table 12

Mean lags and long-run coefficients

	Notes and Coin		M0	
	Interest Rates	Transactions	Interest Rates	Transactions
Equation fitted to				
A. Whole sample				
Long-run coefficient	-0.021	1	-0.012	1
(Mean response lag)	(16 months)	(9 months)	(13 months)	(3 months)
B. 1975M8 - 1982M6				
Long-run coefficient	-0.020	1	-0.017	1
(Mean response lag)	(11 months)	(3 months)	(11 months)	(1 month)

Consumer expenditure as the transactions variable

105. The testing down from the general monthly equation including consumer expenditure followed a very similar procedure to that described using personal disposable income. In this case we did not examine a distributed lag measure for the reasons given in paragraph 73. The emphasis in the testing again concentrated on the equation for notes and coin. The starting point was an equation with up to four lags in the quarterly level of consumer expenditure and the price index (ie the monthly equations included quarterly data at lags 0, 3, 6, 9 and 12). As previously it was possible to drop the longer lags but necessary to examine shorter lags on the interpolated levels of consumer expenditure and prices. Testing down from this equation proceeded in a number of stages: we examined different growth

restrictions on prices and consumer expenditure, the imposition of long-run price homogeneity and then long-run homgeneity in transactions and restrictions on the innovation variables included in the equation.

106. The final form of the equation arrived at was a very simple functional form including the lagged inverse of velocity, the one month change in the (interpolated) price index lagged two months, the third degree Almon lag on twenty four lags of the three-month inter-bank rate, the ratio of the number of current accounts to the total population (or the ratio of the number of building society share accounts to the total population) and monthly seasonals. The F test for the set of restrictions needed to arrive at the final form notes and coin equation against the most general model is $F_{16,175} = 1.47$ which is acceptable. The results for the final form notes and coin equation are shown in table 13. There is again little to choose between the equation including either CA/pop or BS/pop. The functional form and long-run properties of the final notes and coin equations are very similar to those estimated using personal disposable income. The percentage standard errors are marginally smaller on the equations using personal disposable income.

107. The results for M0 using consumer expenditure and the same functional form as for notes and coin are generally poorer than the estimates using personal disposable income. Somewhat surprisingly, the M0 equations fail the F test against the most general equation at a 95 per cent (but pass at a 99 per cent) confidence level and also fail the Lagrange multiplier test. Moreover, while the long-run interest elasticity is similar in the notes and coin equations fitted to the whole sample period using either personal disposable income or consumer expenditure, it is lower in the M0 equation using consumer expenditure (table 13).

108. Because of the poorer performance of the M0 equation, the stability tests are confined to the notes and coin equation estimated using consumer expenditure. Table 14 presents the results for fitting the equation to the same sub-periods as the equation estimated using personal disposable income. Dummy variables have again been included for the first few months of 1971 because of potential data distortions during this period. The main effect of the dummies is to lower the standard error of the equation but to leave the coefficient estimates largely unchanged.

109. The Chow tests for the structural stability of the equation yield similar results to those on the equation using personal disposable income. There is evidence of a structural break in 1971 but of a more stable relationship in the 1970s. Comparing the individual parameter estimates the main difference with the findings using personal disposable income is the poorer fit of the equations and insignificance of the explanatory variables over recent data periods. The interest rate term is now the only significant explanatory variable when the equation is fitted from 1975 onwards. The overall performance and stability of the cash

Table 13

PREFERRED EQUATION FOR NOTES AND COIN USING CONSUMER EXPENDITURE AND APPLICATION TO MO

	$\ln(M/C)_{-1}$	$(\ln P - \ln P_{-1})_{-2}$	CA/POP (10 -2)	BS/POP (10 -2)	r^{ϕ}_{3MIB}	RSS	SE(%)	LM(12)	Hendry	F-test on restrictions from general model	Long-run interest rate coefficient
(A) Notes and Coin	-0.089 (2.9)	0.514 (3.6)	-0.093 (2.0)	-	-0.179 (3.6)	0.013463	0.53	10.44	6.09	1.47	-0.02
	-0.088 (3.3)	0.432 (2.9)	-	-0.052 (2.4)	-0.174 (3.5)	0.013352	0.53	10.95	4.57	1.38	-0.02
(B) MO	-0.308 (5.7)	0.044 (0.1)	-0.53 (5.2)	-	-0.214 (2.1)	0.044558	0.75	23.64*	4.50	1.73*	-0.007
	-0.227 (5.4)	-0.064 (0.2)	-	-0.24 (4.9)	-0.265 (2.6)	0.045224	0.11	26.92*	3.42	1.88*	-0.01

ϕ Sum of Almon coefficients

* Indicates significant test statistic at 95 per cent confidence level

Table 14

STABILITY OF THE NOTES AND COIN EQUATION USING CONSUMER EXPENDITURE

Estimation Period	$\ln(M/C)-1$	(ln P- ln P-1)-2	r^{ϕ} 3MIB (10 -2)	CA/POP (10 -2)	CONSTANT	SE(%)	RSS (df)	$\bar{R}^{-2}$	DW	LM(12)	Chow Tests A	Chow Tests B	C	D	Long run interest rate coefficient
1965-82 (6)	-0.089 (2.9)	0.514 (3.6)	-0.179 (3.6)	-0.093 (2.0)	0.088 (4.7)	0.53	0.013463 (191)	0.816	2.14	10.44					-0.002
1965M1-82M6, with 1971 dummies	-0.084 (2.7)	0.506 (3.7)	-0.177 (3.6)	-0.085 (1.9)	0.085 (4.6)	0.50	0.012071 (187)	0.832	2.22	11.09					-0.0021
1975M8-82M6	-0.070 (1.1)	0.071 (0.2)	-0.213 (2.1)	-0.099 (1.1)	0.104 (2.6)	0.57	0.005483 (64)	0.774	2.51	27.83*	0.63	1.94*			-0.0030
1965M1-75M7	-0.226 (4.0)	0.244 (1.0)	-0.087 (1.1)	-0.397 (3.1)	0.173 (4.4)	0.37	0.004599 (104)	0.881	2.25	22.04*	2.04**				-0.0004
1965M1-71M9	-0.199 (3.7)	0.316 (1.0)	0.053 (0.4)	-0.920 (2.7)	0.178 (3.7)	0.33	0.001371 (58)	0.932	2.27	16.36	3.51**		3.06**	2.76**	-0.0003
1971M10-76M12	-0.358 (2.8)	-0.371 (0.6)	-0.083 (0.2)	-0.923 (2.0)	0.208 (2.9)	0.49	0.003181 (44)	0.775	2.00	10.00	0.86			1.19	-0.0002
1977M1-82M12	-0.051 (0.9)	0.131 (0.4)	-0.132 (1.3)	-0.117 (1.1)	0.109 (2.5)	0.57	0.004555 (53)	0.788	2.55	20.61	NA				-0.0023

$^{\phi}$ Sum of Almon coefficients

* see notes to table 9

equation appears to be rather worse using consumer expenditure as the measure of transactions and this is reflected in more unstable and less well determined path for interest rates in the rolling regression equations (Table 15).

Table 15

Long-run interest sensitivity of notes and coin
Rolling Regression (consumer expenditure as the measure of transaction)

Starting date for the regression$^{\phi}$	long-run coefficient	t statistic on sum of short-run interest rate terms
1965	-0.0033	0.7
66	0.0081	0.8
37	-0.024	1.0
68	-0.0015	0.2
69	-0.0009	0.1
70	-0.0013	0.2
71	0.0024	0.3
72	0.0003	0.0
73	0.0004	0.0
74	-0.060	1.2
75	-0.030	1.8
76	-0.032	1.5
77	-0.026	1.4

ϕ Regression period runs for six years

VII ESTIMATION RESULTS FOR NON INTEREST BEARING SIGHT DEPOSITS AND M1

110. The period used for estimation of the nib sight and nib M_1 equations is 1975M8-1982M6. Data on the split between interest bearing and non interest bearing deposits is first available in May 1975 and initially three lagged dependent variables, subsequently reduced to two, were included in the equations. The last six months of 1982 are used for an out-of-sample dynamic forecasting test of the stability of the equations. The initial general equations included long lags on the explanatory variables but in both equations the longest lags could be excluded. The general models used in the testing down procedure contain two lagged dependent variables, the geometric lag on personal disposable income, T*, six lags on the consumer expenditure deflator and personal disposable income, and a third degree Almon lag on twenty-four lags of the three-month interbank rate.

111. The importance of the variables proxying financial innovation in the means of payment was also examined. The demand for nib sight deposits should be positively related to the number of current accounts. If an increase in the number of building society accounts reflected a shift from bank to building society accounts, the growth in this variable would

tend to reduce the demand for nib sight deposits. Similarly the increased use of credit cards would be expected to reduce holdings of idle non interest bearing sight deposits. The effects of these innovations may therefore have been offsetting to some extent ie the rise in the demand for nib sight deposits, associated with an increase in the number of current accounts, may have been offset by the holding of smaller average nib sight deposits because of a shift to building society accounts and the use of credit card facilities. In the general nib sight deposit equation none of the coefficients on the innovation variables looked sensible or were statistically significant and as a first step they were dropped from the general equation. (The innovations variables are reintroduced in the restricted equations, see paragraph 117). The resulting nib sight deposit equation is:

$$\Delta \ln NIBS = \underset{(4.57)}{-4.798} \underset{(6.54)}{-0.841} \ln NIBS(-1) + \underset{(1.44)}{0.184} \ln NIBS(-2)$$

$$+ \underset{(1.10)}{0.646} \ln T^* \underset{(1.09)}{-0.00155} r^{\phi}_{3MIB}$$

$$+ \sum_{i=1}^{6} \alpha_i \ln P + \sum_{i=1}^{6} \beta_i \ln PDY$$

$\alpha_1 = \underset{(0.87)}{0.671}$	$\beta_1 = \underset{(0.30)}{0.028}$
$\alpha_2 = \underset{(0.26)}{0.411}$	$\beta_2 = \underset{(0.79)}{-0.749}$
$\alpha_3 = \underset{(0.72)}{-1.095}$	$\beta_3 = \underset{(0.21)}{1.211}$
$\alpha_4 = \underset{(0.90)}{-0.139}$	$\beta_4 = \underset{(0.21)}{-0.321}$
$\alpha_5 = \underset{(0.68)}{0.104}$	$\beta_5 = \underset{(0.21)}{0.314}$
$\alpha_6 = \underset{(0.59)}{-0.425}$	$\beta_6 = \underset{(0.69)}{0.491}$

$\bar{R}^2 = 0.767$, DW = 2.23, RSS = 0.00888,

K = 31, n = 82, LM = 31.3**, Hendry = 32.4**

$^{\phi}$Sum of Almon coefficients

**Indicates a significant test statistic at a 99% confidence level

112. A feature of this and more general equations are the extremely poor diagnostic statistics. There is evidence of marked twelfth order autocorrelation and the equation fails badly the Hendry forecasting test.

113. Proceeding to restrict the equation, it is possible to drop the lagged personal disposable income terms while retaining the geometric lag measure on personal disposable income ($F_{6,51} = 0.86$) or to drop the geometric lag measure of transactions while retaining the lagged level terms on personal dispoable income ($F_{2,51}=0.65$). The restrictions reduce the LM test statistic, although it remains significant. The result when dropping the lagged level personal disposable income terms is:

$$\Delta \ln NIBS = \underset{(4.00)}{-3.157} - \underset{(6.28)}{0.748} \ln NIBS(-1) + \underset{(2.59)}{0.291} \ln NIBS(-2)$$

$$+\underset{(4.12)}{0.668} \ln T^* \quad \underset{(5.14)}{-0.0162} r^{\phi}_{3MIB} + \sum_{i=1}^{6} \alpha_i P_{-i}$$

$$\alpha_1 = \underset{(3.62)}{0.787} \qquad \alpha_4 = \underset{(2.02)}{-0.542}$$

$$\alpha_2 = \underset{(1.61)}{-0.446} \qquad \alpha_5 = \underset{(0.78)}{-0.211}$$

$$\alpha_3 = \underset{(0.22)}{-0.062} \qquad \alpha_6 = \underset{(0.79)}{0.165}$$

$\bar{R}^2 = 0.771$, DW = 2.32, SE(%) = 1.60, RSS = 0.00978,

n = 82, K = 25, LM = 26.9**, Hendry = 35.1**

$^{\phi}$Sum of Almon coefficients

**Indicates significant test statistic at 99 per cent confidence level

114. It is difficult to find any statistically acceptable differencing restrictions on the price level terms implying that the demand equation is non homogenous in prices. For example, the test for including only the difference between the second and fourth lagged price terms gives on F statistic of $F_{5,57} = 3.52$ against the previous restricted equation and $F_{11,51} = 2.05$ against the general model. Both restrictions are rejected at a 95 per cent confidence level. Imposing this restriction, however, improves the Lagrange multiplier test statistic, which now falls below its 95 per cent critical level.

$$\Delta \ln NIBS = \underset{(4.00)}{-0.932} \quad \underset{(5.83)}{-0.632} \ln NIBS(-1) \quad \underset{(2.99)}{+0.330} \ln NIBS(-2)$$

$$\underset{(3.42)}{+0.285} \ln T^* \quad \underset{(3.79)}{+0.604} \quad (\ln P - \ln P_{-3})_{-1}$$

$$\underset{(4.45)}{-0.0125} \; r^{\phi}_{3MIB}$$

$$\bar{R}^2 = 0.725, \quad DW = 2.09, \quad SE = 1.76, \quad RSS = 0.0128,$$

$$n = 82, \quad k = 20, \quad LM = 19.8, \quad Hendry = 35.3^{**}$$

$^{\phi}$Sum of Almon coefficients

**Indicates significant test statistic at 99 per cent confidence level.

115. The test for also imposing homogeneity on the transactions variable against the general equation, $F_{12,51} = 1.95$, is on the borderline of significance (at a 95 per cent level). This additional restriction also tends to worsen somewhat the LM test statistic.

$$\Delta \ln NIBS = \underset{(3.97)}{-0.838} \quad \underset{(5.82)}{-0.602} \ln \left(\frac{NIBS}{T^*}\right)(-1) \quad \underset{(3.82)}{+0.377} \ln \left(\frac{NIBS}{T^*}\right)(-2)$$

$$\underset{(3.95)}{+0.626} \quad (\ln P - \ln P_{-3})_{-1} \quad \underset{(4.95)}{-0.0108} \; r^{\phi}_{3MIB}$$

$$\bar{R}^2 = 0.725, \quad DW = 2.14, \quad SE(\%) = 1.74,$$

$$RSS = 0.01295, \quad n = 82, \quad k = 19, \quad LM = 21.3^{*}, \quad Hendry = 39.5^{**}$$

$^{\phi}$Sum of Almon coefficients

**Indicates significant test statistic at 99 per cent confidence level.

116. A feature of all of the results on nib sight deposits are the very poor Hendry test statistics, indicating structural instability in the nib sight deposit equations. This is hardly surprising given the potential structural importance of the growth of interest bearing sight deposits in shifting the demand for non interest bearing sight deposits. An attempt to pick up some of the structural shifts in nib sight deposit demand, by the inclusion of a general time trend, failed to improve the dynamic forecasting performance of the equation (equation 1 in table 16).

117. The results for including the financial innovation variables in the restricted nib sight deposit equation using the measured level of personal disposable income are given in table 16; the findings using the geometric lag measure are very similar. When a general

Table 16

RESTRICTED NIB SIGHT DEPOSIT EQUATION WITH FINANCIAL INNOVATION VARIABLES

	$\ln \frac{NIBS}{T}(-1)$	$\ln \frac{NIBS}{T}(-2)$	$(\ln P - \ln P - 3) -1$	r^{ϕ}_{3MIB}	TT	CA/POP	BS/POP	CC	$\bar{R}^2$	DW	SE (%)	LM(12)	Hendry
(1)	- 0.645 (5.93)	0.353 (3.38)	0.650 (3.59)	- 0.0114 (4.73)	- 0.0002 (1.11)	-	-	-	0.729	2.12	0.61	18.8	34.5 **
(2)	- 0.765 (6.89)	0.314 (3.13)	0.589 (3.93)	- 0.0214 (5.22)	- 0.0066 (2.25)	0.04 (2.29)	- 0.002 (0.67)	- 0.33 (10-5) (0.37)	0.756	2.22	0.58	25.7*	34.6 **
(3)	- 0.762 (6.94)	0.314 (3.15)	0.582 (3.95)	- 0.021 (5.41)	- 0.0059 (2.78)	0.035 (3.14)	- 0.002 (0.82)	-	0.759	2.22	0.57	25.4*	35.1 **
(4)	- 0.763 (6.97)	0.311 (3.13)	0.582 (3.96)	- 0.021 (5.39)	- 0.0063 (3.13)	0.033 (3.04)	-	-	0.761	2.20	0.59	26.7*	35.7 **
(5)	- 0.684 (6.31)	0.341 (3.32)	0.549 (3.56)	- 0.015 (5.36)	-	0.003 (0.52)	- 0.005 (1.62)	0.11 (10 -4) (1.59)	0.739	2.22	0.60	23.9*	36.4 **

$^{\phi}$ Sum of Almon coefficients.

* Indicates significant test statistics at 95 per cent confidence level

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time trend is included (equation 2 in the table) the innovation variables are correctly signed, although only the general time trend and the per capita number of current accounts are significant. Dropping the general time trend (equation 5) removes the significance of the per capita number of current accounts and causes the number of credit cards to become wrong signed. The inclusion of the financial innovation variables has little impact on the residual autocorrelation in the equation or its poor forecasting performance.

118. Actual and fitted values of the growth of nib sight deposits, deseasonalised using the estimated seasonal regression dummies, plus an out of sample dynamic forecast, 1982M7-1983M12, are shown in chart 12. The tendency of the equation to overestimate the growth of nib sight deposits is evident in the last months of the fitted equation as well as in the out of sample dynamic forecast.

119. Testing down the nib M1 equation in the usual way results in a form which is very similar to the nib sight deposit equation. The F tests against the general equation for the restrictions imposed to arrive at equation 3 in table 17, which uses the geometric lag measure of personal disposable income and includes a general time trend, is $F_{16,46} = 0.90$ and the F test to arrive at equation 4 excluding the general time trend, is $F_{17,46} = 1.34$. The results using the measured level of personal disposable income (Table 17A) are again very similar but with slightly larger percentage standard errors. All of the nib M1 equations suffer from the same defect as the nib sight deposit equations in that they fail badly the Hendry test for out of sample dynamic forecasting. There is, however, less evidence of significant autocorrelation in the nib M1 equations than the nib sight deposit equations. It is interesting that the coefficient on the per capita number of bank accounts changes sign, while remaining significant, when the general time trend is excluded in table 17. Indeed, the overall structure of the nib M1 equation including the time trend is similar to the nib sight deposit equation (presented as equation 2 in tables 17 and 17A), while the equation excluding the time trend is more like the notes and coin regression (equation 1 in table 17 and 17A).

120. Comparing the results for nib M1 with the equations for its components, notes and coin and nib sight deposits, shows that the nib M1 equation performs better than the nib sight deposit equation, but about the same as the notes and coin regression. Chart 13 compares the actual with the fitted values and the out of sample forecast values, 1982M7-1982M12 of the growth of nib M1[(1)]. Of the three equations only the notes and coin equation passes the test for out of sample dynamic forecasting.

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(1)Data are deseasonalised using the estimated seasonal regression dummies.

CHART 12

ACTUAL AND FITTED VALUES OF MONTHLY GROWTH OF NIB SIGHT DEPOSITS
DESEASONALISED USING SEASONAL REGRESSION DUMMIES

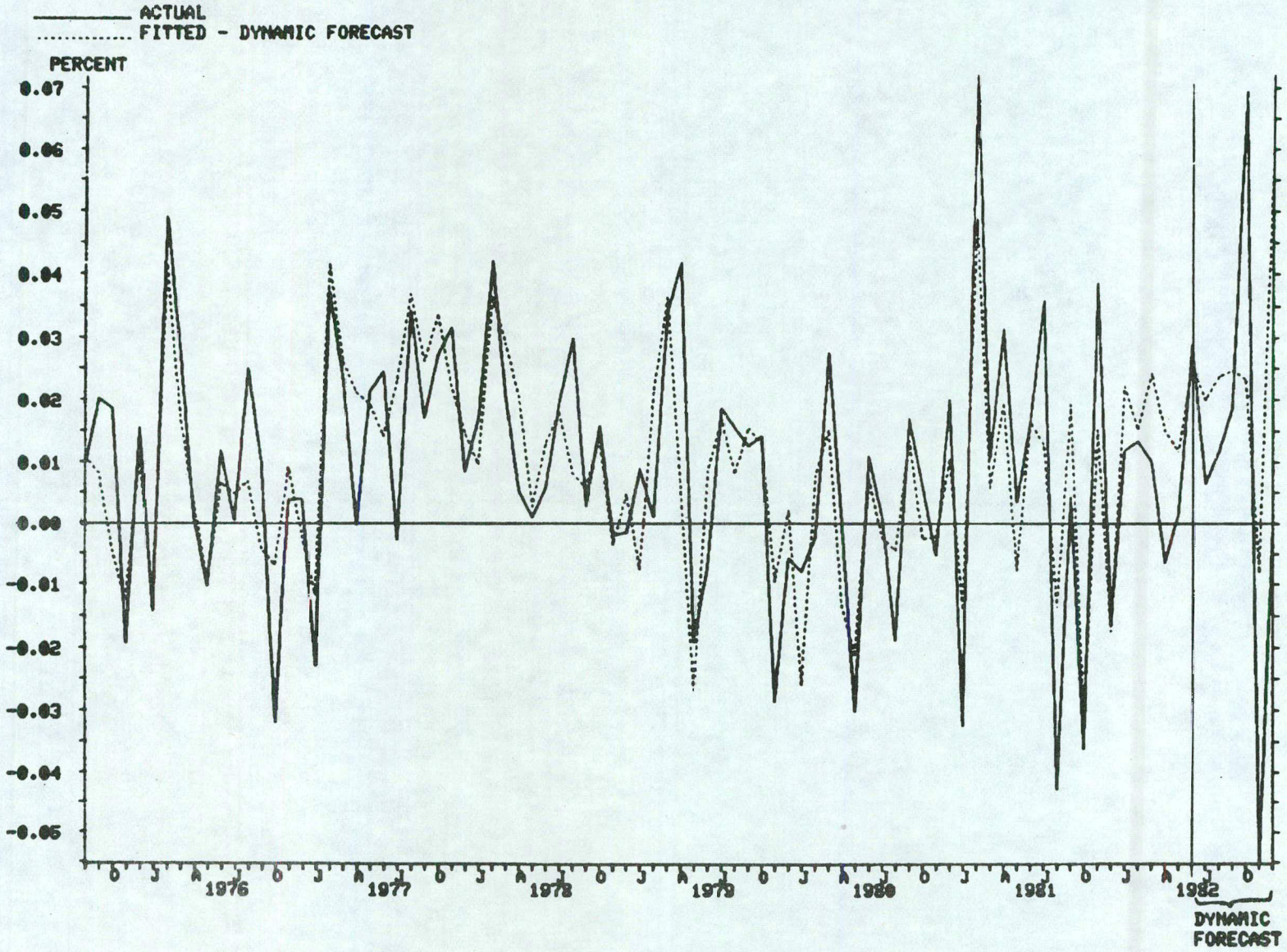

Table 17 Demand equations for notes and coin, nib sight deposits and nib M; Geometric lag measure of transactions (1975M8 - 1982M6)

1. Notes and Coin

$$\Delta \ln NC = \underset{(2.32)}{-0.841} \underset{(3.61)}{-0.440} \ln \frac{NC_{-1}}{T^*} \underset{(1.78)}{+0.217} \ln \frac{NC_{-2}}{T^*} \underset{(3.62)}{-0.0047} r\phi_{3MIB}$$

$$\underset{(2.54)}{-0.0031} CA/POP \underset{(0.89)}{+0.095} (\ln p - \ln p_{-2})_{-2}$$

$\bar{R}^2 = 0.823$ SE(%) = 0.54 LM = 17.1 Hendry = 4.4

2. Nib sight deposits

$$\Delta \ln NIBS = \underset{(5.32)}{-3.48} \underset{(7.73)}{-0.827} \ln \frac{NIBS_{-1}}{T^*} \underset{(2.10)}{+0.211} \ln \frac{NIBS_{-2}}{T^*}$$

$$\underset{(3.93)}{+0.042} CA/POP \underset{(4.05)}{-0.0084} TT \underset{(4.70)}{+0.669} (\ln P - \ln P_{-3})_{-1}$$

$$\underset{(6.19)}{-0.028} r\phi_{3MIB}$$

$\bar{R}^2 = 0.783$ SE(%) = 0.54 LM = 20.1 Hendry = 34.3**

3. Nib M1, including a general time trend

$$\Delta \ln NIBM1 = \underset{(4.32)}{-1.887} \underset{(6.39)}{-0.697} \ln \frac{NIBM1_{-1}}{T^*} \underset{(2.54)}{+0.262} \ln \frac{NIBM1_{-2}}{T^*} \underset{(5.41)}{-0.016} r\phi_{3M1B}$$

$$\underset{(2.58)}{+0.017} CA/POP \underset{(2.94)}{-0.0037} TT \underset{(3.89)}{+0.373} (\ln P - \ln P_{-3})_{-1}$$

$\bar{R}^2 = 0.839$ SE(%) = 0.46 LM = 21.8* Hendry = 36.0**

4. Nib M1, excluding a general time trend

$$\Delta \ln NIBM1 = \underset{(3.11)}{-0.850} \underset{(5.40)}{-0.586} \ln \frac{NIBM1_{-1}}{T^*} \underset{(2.86)}{+0.308} \ln \frac{NIBM1_{-2}}{T^*}$$

$$\underset{(2.07)}{-0.0021} CA/POP \underset{(3.62)}{+0.368} (\ln P - \ln P_{-3})_{-1} \underset{(4.77)}{-0.0091} r\phi_{3MIB}$$

$\bar{R}^2 = 0.820$ SE (%) = 0.48 LM = 15.8 Hendry = 35.5

ϕ Sum of Almon coefficients

* Indicates significient test statistic at 95 per cent confidence level

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Table 17A Demand equations for notes and coin, nib sight deposits and Nib M, : actual measure of transactions (1975 M8 - 1982 M6)

1. Notes and Coin

$$\Delta \ln NC = \underset{(1.64)}{-0.459} \quad \underset{(3.29)}{-0.395} \ln \frac{NC_{-1}}{T} \quad \underset{(2.24)}{+0.267} \ln \frac{NC_{-2}}{T} \quad \underset{(3.31)}{-0.0032} \; r^{\phi}_{3MIB}$$

$$\underset{(1.92)}{-0.0019} \; CA/POP \quad \underset{(0.85)}{+0.093} \; (\ln P - \ln P_{-2})_{-2}$$

$\bar{R}^2 = 0.82$ SE(%) = 0.55 LM = 16.3 Hendry = 1.8

2. Nib sight deposits

$$\Delta \ln NIBS = \underset{(4.42)}{-2.588} \quad \underset{(6.93)}{-0.763} \ln \frac{NIBS_{-1}}{T} \quad \underset{(3.96)}{+0.311} \ln \frac{NIBS_{-2}}{T}$$

$$\underset{(3.13)}{+0.031} \; CA/POP \quad \underset{(3.13)}{-0.0063} \; TT \quad \underset{(3.96)}{+0.582} \; (\ln P - \ln P_{-3})_{-1}$$

$$\underset{(5.44)}{-0.021} \; r^{\phi}_{3MIB}$$

$\bar{R}^2 = 0.761$ SE(%) = 0.59 LM = 26.7* Hendry = 35.7**

3. Nib M1, including a general time trend

$$\Delta \ln NIBM1 = \underset{(3.29)}{-1.194} \quad \underset{(5.64)}{-0.63} \ln \frac{NIBM1_{-1}}{T} \quad \underset{(3.53)}{+0.360} \ln \frac{NIBM1_{-2}}{T} \quad \underset{(4.62)}{-0.011} \; r^{\phi}_{3MIB}$$

$$\underset{(1.81)}{+0.012} \; CA/POP \quad \underset{(2.03)}{-0.003} \; TT \quad \underset{(3.27)}{+0.327} \; (\ln P - \ln P_{-3})_{-1}$$

$\bar{R}^2 = 0.822$ SE(%) = 0.48 LM = 21.6* Hendry = 35.4**

4. Nib M1, excluding a general time trend

$$\Delta \ln NIBM1 = \underset{(2.70)}{-0.612} \quad \underset{(5.17)}{-0.567} \ln \frac{NIBM1_{-1}}{T} \quad \underset{(3.50)}{+0.366} \ln \frac{NIBM1_{-2}}{T}$$

$$\underset{(1.49)}{-0.0013} \; CA/POP \quad \underset{(3.28)}{+0.336} \; (\ln P - \ln P_{-3})_{-1} \quad \underset{(4.75)}{-0.007} \; r^{\phi}_{3MIB}$$

$\bar{R}^2 = 0.814$ SE(%) = 0.49 LM = 17.7 Hendry = 35.2**

$^{\phi}$Sum of Almon coefficients

* Indicates significant test statistic at 95 per cent confidence level

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121. The long-run and mean response lags with respect to interest rates and transactions implied by the equations in table 17 are given in table 18 and the cumulative response functions are shown in chart 14. As would be expected, the long-run interest rate coefficient on the nib M1 equation, at -0.036, falls between the long-run coefficients found on the two component equations for nib sight deposits and notes and coin: the nib sight equation is over twice as interest sensitive as the notes and coin equation. Holdings of nib sight deposits and nib M1 have been distorted by the growth of interest bearing sight deposits and although the effects of innovation would to some extent be picked up by the general time trend included in the equaiton, further data would be needed to ensure that the long-run interest rate coefficients have been correctly identified.

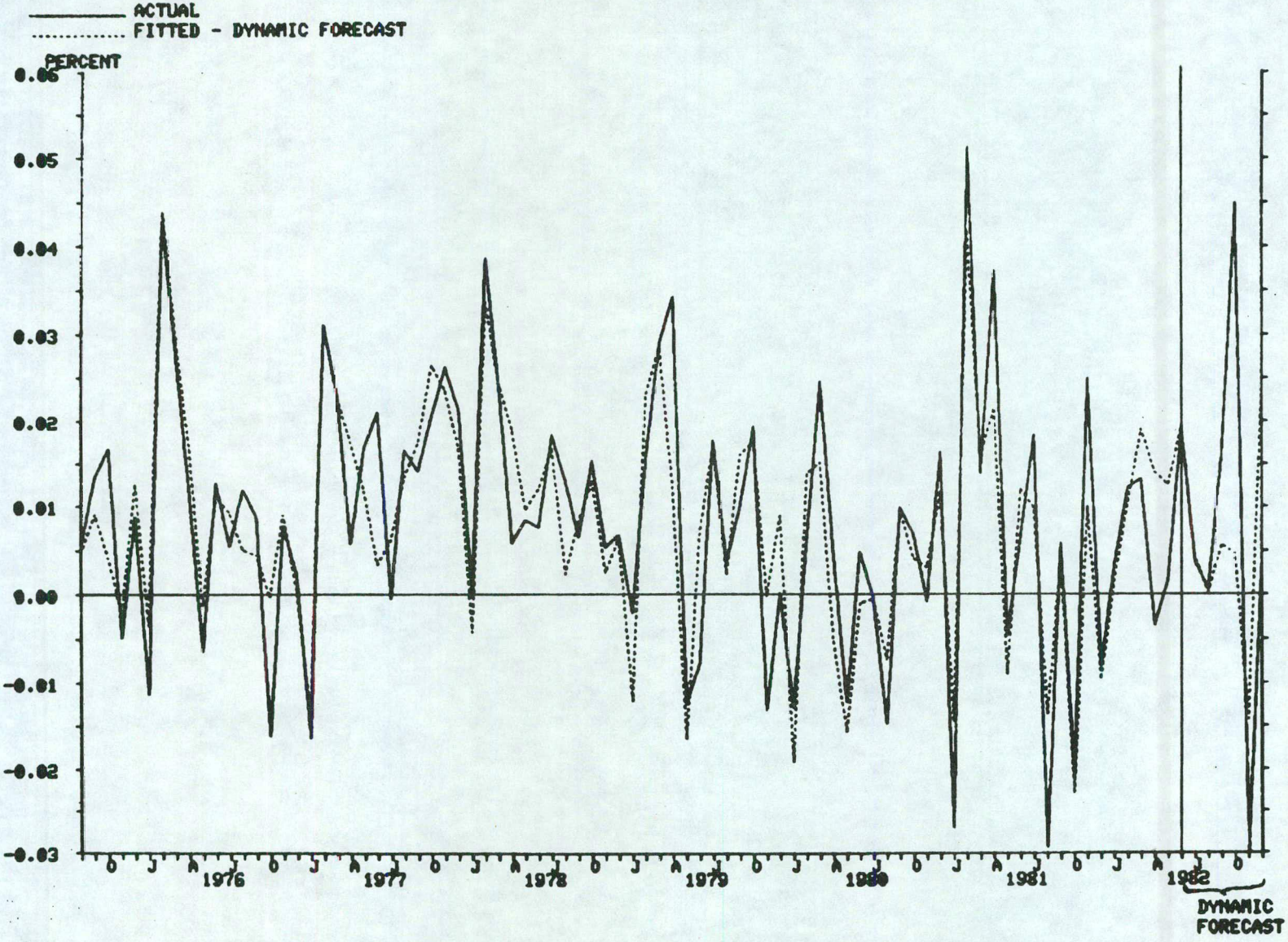
Table 18

Mean lags and long-run coefficients

		Interest rates	Transactions
1.	Notes and coin		
	Long-run coefficient	-0.021	1
	(Mean lag)	(14 months)	(4 months)
2.	Nib sight deposits		
	Long-run coefficient	-0.045	1
	(Mean lag)	(7 months)	(1 month)
3.	Nib M1, including a time trend		
	Long-run coefficient	-0.036	1
	(Mean lag)	(8 months)	(1 month)
4.	Nib M1, excluding a time trend		
	Long-run coefficient	-0.032	1
	(Mean lag)	(9 months)	(3 months)

CHART 13

ACTUAL AND FITTED VALUES OF MONTHLY GROWTH OF NIB M1
DESEASONALISED USING SEASONAL REGRESSION DUMMIES



CUMULATIVE RESPONSE FUNCTIONS TO INTEREST RATES

CHART 14

(4) Notes & Coin

LAG	CUMULATIVE RESPONSE FUNCTION B(I) = SIGMA A(I)
B(0)	-0.3385-03
B(1)	-0.8544-03
B(2)	-0.1528-02
B(3)	-0.2311-02
B(4)	-0.3170-02
B(5)	-0.4076-02
B(6)	-0.5004-02
B(7)	-0.5933-02
B(8)	-0.6846-02
B(9)	-0.7732-02
B(10)	-0.8579-02
B(11)	-0.9384-02
B(12)	-0.1014-01
B(13)	-0.1085-01
B(14)	-0.1152-01
B(15)	-0.1215-01
B(16)	-0.1275-01
B(17)	-0.1333-01
B(18)	-0.1390-01
B(19)	-0.1448-01
B(20)	-0.1510-01
B(21)	-0.1576-01
B(22)	-0.1649-01
B(23)	-0.1732-01
B(24)	-0.1795-01
B(25)	-0.1848-01
B(26)	-0.1891-01
B(27)	-0.1927-01
B(28)	-0.1956-01
B(29)	-0.1981-01
B(30)	-0.2001-01

(2) Nib sight deposits

LAG	CUMULATIVE RESPONSE FUNCTION B(I) = SIGMA A(I)
B(0)	-0.4023-02
B(1)	-0.8107-02
B(2)	-0.1250-01
B(3)	-0.1649-01
B(4)	-0.2008-01
B(5)	-0.2320-01
B(6)	-0.2449-01
B(7)	-0.2675-01
B(8)	-0.2859-01
B(9)	-0.3039-01
B(10)	-0.3197-01
B(11)	-0.3342-01
B(12)	-0.3475-01
B(13)	-0.3529-01
B(14)	-0.3636-01
B(15)	-0.3735-01
B(16)	-0.3842-01
B(17)	-0.3949-01
B(18)	-0.4056-01
B(19)	-0.4161-01
B(20)	-0.4202-01
B(21)	-0.4292-01
B(22)	-0.4371-01
B(23)	-0.4450-01
B(24)	-0.4480-01
B(25)	-0.4502-01
B(26)	-0.4512-01
B(27)	-0.4518-01
B(28)	-0.4522-01
B(29)	-0.4523-01
B(30)	-0.4524-01

(3) NIB M1 (including a time trend)

LAG	CUMULATIVE RESPONSE FUNCTION B(I) = SIGMA A(I)
B(0)	-0.2324-02
B(1)	-0.4948-02
B(2)	-0.7928-02
B(3)	-0.1080-01
B(4)	-0.1350-01
B(5)	-0.1592-01
B(6)	-0.1805-01
B(7)	-0.1991-01
B(8)	-0.2152-01
B(9)	-0.2293-01
B(10)	-0.2417-01
B(11)	-0.2530-01
B(12)	-0.2634-01
B(13)	-0.2734-01
B(14)	-0.2831-01
B(15)	-0.2927-01
B(16)	-0.3024-01
B(17)	-0.3120-01
B(18)	-0.3215-01
B(19)	-0.3307-01
B(20)	-0.3393-01
B(21)	-0.3469-01
B(22)	-0.3530-01
B(23)	-0.3570-01
B(24)	-0.3598-01
B(25)	-0.3617-01
B(26)	-0.3630-01
B(27)	-0.3639-01
B(28)	-0.3645-01
B(29)	-0.3649-01
B(30)	-0.3652-01

(4) NIB M1 (excluding a time trend)

LAG	CUMULATIVE RESPONSE FUNCTION B(I) = SIGMA A(I)
B(0)	-0.1638-02
B(1)	-0.3609-02
B(2)	-0.5934-02
B(3)	-0.8269-02
B(4)	-0.1053-01
B(5)	-0.1260-01
B(6)	-0.1447-01
B(7)	-0.1612-01
B(8)	-0.1756-01
B(9)	-0.1883-01
B(10)	-0.1995-01
B(11)	-0.2097-01
B(12)	-0.2192-01
B(13)	-0.2284-01
B(14)	-0.2375-01
B(15)	-0.2468-01
B(16)	-0.2563-01
B(17)	-0.2661-01
B(18)	-0.2759-01
B(19)	-0.2856-01
B(20)	-0.2947-01
B(21)	-0.3027-01
B(22)	-0.3089-01
B(23)	-0.3124-01
B(24)	-0.3158-01
B(25)	-0.3183-01
B(26)	-0.3203-01
B(27)	-0.3220-01
B(28)	-0.3233-01
B(29)	-0.3243-01
B(30)	-0.3251-01

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VIII. SUMMARY OF THE MAIN CONCLUSIONS

122. This paper examines the determinants of the demand for non interest bearing forms of money, paying attention to the influences of financial innovations on money demand. The main findings are summarised below.

(i) The work reported in the paper finds that the trends in the velocity of non interest bearing forms of money over the period 1965-1982 are closely related with trends in financial innovation. While no single measure of innovation is a wholly satisfactory summary indicator of the various innovations that have occured, the more successful variables in the econometric work - namely the proportion of the population holding bank current accounts and building society share accounts - do significantly help to explain the behaviour in cash and MO over the period of estimation. Only when proper allowance is made for financial innovation is it possible adequately to assess the response of the demand for notes and coin and MO to interest rates and income or expenditure. The theoretical analysis indicates not only that most financial innovations in cash management will tend to lower average cash holdings, but also that they will tend to raise their interest sensitivity. The available measures of financial innovation are less successful in explaining the slower growth of interest bearing sight deposits in recent periods, although this component of money has almost certainly been influenced by financial innovation.

(ii) The specific results of the econometric work on notes and coin and MO are as follows:

(a) Although the research procedure begins with very general models, the form of the equations that emerge from the testing procedure are very simple. The month to month growth of notes and coin (and MO) is related to

the ratio of notes and coin (MO) to the measure of transactions lagged one month (ie in the long-run the demand equation is homogenous in transactions);

a number of lagged interest rate terms; and

a measure of financial innovation (the per capita number of current accounts or the per capita number of building society accounts).

The response lags from transactions and interest rates to money demand are relatively short.

(b) The equations forecast recent time periods reasonably well. A Chow test does, however, indicate a structural break around 1971. The equations fitted to the whole sample period (1965-82) have slower adjustment speeds

compared with equations estimated over all shorter sub periods. This indicates some change in cash holding behaviour through the period.

(c) The response of both notes and coin and MO to changes in interest rates is modest, significant, and reasonably stable in equations fitted to recent time periods. The interest sensitivity of the demand equations is more uncertain and less well determined in earlier periods. It appears that MO has a somewhat better determined interest sensitivity in earlier periods than its main component, notes and coin. Although interest rates are now well below their peak levels, the prolonged experience of high nominal nominal interest rates in the 1970s and early 1980s, together with innovations in cash management techniques, appears to have brought about higher interest sensitivity than in the 1960s and early 1970s. The work reported in this paper is therefore consistent with the idea that the interest sensitivity of narrow money demand is to some extent dependent on the level of interest rates and the cumulative innovation that has occurred in cash management techniques.

(d) The difference between notes and coin and MO is banks' holdings of till money and bankers' operational balances. Operational balances are highly volatile from one end banking month to the next around a fairly constant level that depends on the monetary control regime. There have been two such changes in the last fifteen years. As a result the equations for notes and coin have a better statistical fit than those for MO.

(iii) Equations for nib sight deposits and total nib M1

The equation for nib sight deposits is generally poorly specified with evidence of significant autocorrelation in the errors. There is marked evidence of a reduction in the demand for nib sight deposits in the recent past, which the main determinants - interest rates and transactions, as well as the innovation variables, a general trend and the per capita number of current accounts - do not fully explain. This unexplained slower growth in nib sight deposits is probably the result of the growing availability of interest bearing sight deposits. The fit of the equations for total nib M1 is better than the equation for nib sight deposits, and about the same as those for notes and coin. There is evidence, however, of a structural break in the nib M1 relationship in recent periods.

(iv) Summary of long-run properties

The long-run properties of the demand equations for non interest bearing money estimated over the most recent data period, 1975-82, are as follows:

- The non interest bearing aggregates appear to be homogenous in transactions. The longer-term trend in velocity over this period is

the result of a rising trend in nominal interest rates (until recent years) or the trend in the variables that measure or proxy financial innovation.

- The long-run response, in the best equations described in this paper, of the level of each aggregate to one percentage point rise in nominal interest rates is:

Notes and coins	MO	nib sight deposit	nib M1
-2.0 %	-1.7 %	-4.5 %	-3.6 %

This confirms the prior expectation that while notes and coins and MO are sensitive to interest rate changes the degree of this sensitivity is less than for nib sight deposits or total nib M1. The best equations imply that the upward trend in nominal interest rates over 1975-82 (which has since been reversed), accounted for a trend rise of about 2 per cent per annum in the income velocity of notes and coin and MO, and rises of about 3½ and 4 per cent per annum in the income velocity of nib M_1 and nib sight deposits respectively.

- In the preferred equations for notes and coin and MO measures of financial innovation help to explain the rise in velocity over the period. The best equations fitted to the period 1975-1982 indicate that financial innovation, at the average rate recorded over the same period, raises the income velocity of notes and coin and MO by about 3 per cent a year.

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INSTITUTIONAL FACTORS AFFECTING THE NARROW MONETARY AGGREGATES

A Notes and coin in circulation[1]

(i) Issue and withdrawal of new or redesigned notes

While the stock of notes and coin in circulation outside the Bank of England is purely demand determined and not subject to direct regulation, the authorities do exercise control over the exact denominations of notes and coin (though not the stock of individual notes and coin in circulation). The issue of new denominations of notes and coin, and the withdrawal of old denominations may lead temporarily to distortions in the demand for notes and coin.

Under the terms of the Currency and Bank Notes Act 1928 notes not handed back to the Bank of England, when they have ceased to be legal tender, were only written out of circulation (ie out of the recorded figures on notes and coin in circulation) after 20 years had elapsed since the final date of issue. Under the Currency Act 1983 the period was reduced to 10 years from the date when the notes ceased to be legal tender. The amounts involved in writing an old note out of circulation are usually small, but the process leads, from time to time, to small discrete changes in the figures for the outstanding level of notes in circulation.

The chronology of changes in the denomination of notes and coin in circulation over the last 15 years is:

1969

October:	The 50p coin introduced and issues of 10/- notes ceased.

1970

July:	New £20 note issued (previous £20 notes ceased to be issued in 1943).
November:	The 10/- note ceased to be legal tender. 10/- notes in circulation, however, remain in the figures for notes and coin in circulation.

1971

February:	Decimalisation of the currency.
November:	A newly designed £5 note introduced.

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[1] This includes notes and coin held by the public sector, which are a component of all the monetary aggregates including those, such as total M1, that exclude public sector deposits. The reason they are not excluded from such aggregates is the lack of adequate data. An estimate of overseas holdings is deducted from the calendar quarterly data; but the monthly figures include all holdings of notes and coin outside the monetary sector.

1973

August: Old series of £5 notes ceased to be legal tender, but those not returned to banks remain in the figures for notes in circulation.

1975

February: A new £10 note introduced.

1978

February: A new £1 note introduced.

1979

May: Old series C £1 and £10 notes cease to be legal tender.

1980

December: Series A £1 notes remaining in the figures for notes in circulation - totalling £15 million -written out of the note issue under the Currency and Bank Notes Act, 1928.

1981

March: Issue of a new £50 note.

November: Series A 10/- notes remaining in the circulation figures - totalling £6 million - written out of the note issue.

1982

June: Issue of new 20p coin

1983

February: Old notes of various series remaining in circulation - totalling £20 million - written out of the figures for notes in circulation under the Currency Act 1983.

April: Introduction of the £1 coin.

The proportion of the total value of notes in circulation by denomination of note since 1967 is shown in Table A1. There has been a steady rise in the demand for notes of £10 and £20 denominations and a steady fall in the proportion of £1 notes in circulation. Holdings of £5 notes amounted to over half of total notes in circulation until 1978, since when the holding of £5 notes as a proportion of the total has dropped sharply. The effect of the introduction of new or redesigned denominations of notes is not immediately discernable from the table, except perhaps in the case of the proportion of £5 notes in circulation which rose in 1973, against a declining trend, when the old series £5 note ceased to be legal tender.

(ii) Coin wastage rates

There are no direct data on the stock of coins in circulation. Stock holdings are estimated using information on new issues of coin by the Mint and assumptions about coin wastage

rates (coin lost, damaged, taken abroad by tourists etc). Circulating coin is issued by the Mint only into bank stocks, and as such normally appears immediately in the figures published in Financial Statistics as "till money". The flow of coins to the public is calculated using information from the monthly bank returns on the stock of coins held by the banking system. These flow figures are adjusted by assumptions about coin wastage rates to arrive at stock figures for holdings of coin outside the monetary sector.

A large amount of judgement is involved in the selection of coin wastage rates and since the coin stock is continuously deflated by these asumptions there is scope for cumulative error in the calculation of the stock of coin in circulation.

TABLE A1

Proportion of total value of notes in circulation by denomination*

Year to end February	10s	£1	£5	£10	£20	£50
1967	3.6	33.9	51.9	6.7	0.1	
68	3.6	33.2	52.3	8.0	0.1	
69	3.5	30.5	53.4	8.9	0.0	
70	1.3	29.3	55.4	9.7	0.0	
71	0.4	26.7	56.8	9.7	2.1	-
72	0.4	24.9	56.6	10.5	3.9	-
73	0.3	21.7	57.3	11.6	5.4	-
74	0.3	19.8	54.9	14.1	7.1	-
75	0.2	16.5	56.3	15.2	7.4	-
76	0.2	13.8	54.0	19.1	8.3	-
77	0.2	11.9	50.8	23.6	9.7	-
78	0.2	10.3	46.6	27.9	10.9	-
79	-	8.8	41.5	33.1	12.6	-
80	-	7.2	36.3	36.9	14.5	-
81	-	6.5	32.5	39.3	16.4	-
82	-	6.1	28.8	39.9	17.0	2.6
83	-	5.8	25.9	41.2	17.0	5.8

Source: Bank of England Annual Reports.

*The proportions do not sum to 100 because of the inclusion of certain higher value notes used internally in the Bank in the total of notes in circulation. The higher value notes are used, for example, as cover for the note issue of banks in Scotland and Northern Ireland.

Bankers' balances

The rules for banks' holdings of balances at the Bank of England have been changed twice during the last 15 years. The historical arrangements governing holdings of bankers' balances are as follows:

1946-September 1971. London clearing banks agreed to hold, on a daily basis, at least 8 per cent of total assets in the form of till money plus bankers' balances.

September 1971-August 1981. Under the Competition and Credit Control regime London clearing banks agreed to maintain an average level of 1½ per cent of their eligible liabilities as non interest bearing balances at the Bank of England. These balances counted towards the 12½ percent minimum reserve asset requirement which was imposed on all banks.

August 1981 to date. The new monetary control arrangements, which took effect on 20 August 1981, replaced the agreed 1½ per cent bankers' balance requirement on London clearing banks with a uniform cash ratio requirement of ½ per cent of institutions' eligible liabilities (ELs). The ½ per cent ratio is to apply to all recognised banks and some other institutions included in the monetary sector[(1)]. The ½ per cent ratio is set twice a year in relation to each institution's average ELs in the previous six months. In addition to the cash ratio deposits, which cannot be drawn on for operational purposes, clearing banks hold voluntary balances at the Bank of England to settle claims between themselves and with the public sector. It is only these operational balances which are included in the published definition of MO as from August 1981. Before August 1981 all bankers' balances were included in published MO.

C **Monetary sector holdings of till money**

There have been no direct influences from the authorities on banks' holdings of till money since 1971. The till money series may, however, be distorted temporarily by the introduction of new denominations of notes and coins, since additional stocks of notes and coin have to be held to meet potential demand for the new notes and coin. (The chronology of issues of new denominations of notes and coin is provided above). The till money series was also affected by the introduction of the "notes held to order" scheme in March 1982 which allowed banks' to economise on holdings of till money ie notes held and paid for by commerical banks. This had a once and for all effect on holdings of till money and thus MO.

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(1) The application of the ½ per cent requirement to a wider range of institutions resulted at the time in approximately the same level of non interest bearing balances as under the previous regulations.

ANNEX 2

MOVEMENTS IN BANKERS' BALANCES AND TILL MONEY

As well as notes and coin in circulation outside the monetary sector, the wide monetary base includes money in bank tills (till money) and operational balances held by banks at the Bank of England. This annex examines the factors which influence movements in these components. It explains, first of all, the measures of

(a) total bankers' balances;

(b) operational bankers' balances;

and (c) the measure of operational bankers' balances used in the research reported in this paper.

'a) Total bankers' balances

The arrangements regarding the holding of total bankers' balances are set out in Annex 1.

(b) Operational bankers' balances

Operational balances are those available to be drawn on from day to day. The relationship between operational and total bankers' balances has changed over time.

(i) Prior to August 1981. Fluctuations around the agreed average 1½ per cent bankers' balance requirement were tolerated from day to day and thus the 1½ per cent balance requirement could perfom some operational role. Observed movements in bankers' balances reflected both the 1½ per cent requirement and short-term fluctuations because of the use of the balances for operational purposes.

(ii) After August 1981. The ½ cash ratio deposits are fixed for six months at a time and are not for operational purposes. These are excluded from published MO.

(c) A constructed operational balance series

There was no distinction between total and operational bankers' balances before August 1981. However, fluctuations around the agreed 1½ per cent balance requirement would be a reasonable proxy for movements in bankers' balances for operational purposes. This series does not measure the stock of operational deposits. Prior to August 1981 the published bankers' balance series has been reduced by 1½ per cent of eligible liabilities in order to obtain the series used in the calculation of MO in the research.

Chart AI The dashed line shows the recorded stock of total bankers' balances. Movements in bankers' balances for "operational" purposes are shown as the difference between the solid and dashed line. Before August 1981 operational balances have been artificially calculated by subtracting 1½ per cent of eligible liabilities from total bankers' balances. After August 1981 data on the ½ per cent cash ratio requirment and the additional holdings of bankers' balances are available and are shown in the chart.

Chart AII shows the stock of bankers' balances included in published MO. Before August 1981 the stock is the same as shown by the dashed line in Chart AI, but after August 1981 only the difference between the solid and dashed line in Chart AI (the operational proportion of bankers' balances) is included in published MO.

Chart AIII plots the series we have constructed to show movements in "operational" balances and which has been used in the calculation of MO in the research. This series is the difference between the dashed and solid lines in Chart AI.

Determinants of operational balances

Operational bankers' balances, which are predominantly held by the London clearing banks, are used to settle residual net claims between the clearing banks and with the Bank of England.

The Bank of England maintains running forecasts of the overall cash position of the money market. To assist the Bank in its daily forecast, the clearing banks advise the Bank of their target level for operational balances. The Bank forecasts estimate the likely level of the London clearing banks' operational balances at the Bank, after taking into account all transactions between the Bank (on its own behalf or for customers such as the Government) and the banking system (acting for all other sectors), but before any new official money market intervention by the Bank. By comparing the projected level of operational balances with the aggregate of the targets declared by the individual clearing banks, the Bank produces forecasts of expected daily surpluses or shortages in the money market[(1)]. The Bank has opportunities to revise its forecasts and to relieve shortages during the day up to about 3 p.m. Town clearing goes on after that time and there is inevitably some residual uncertainty about the size of overall money market surpluses and deficits and transactions passing between individual clearing banks which have to be met by clearing banks' operational balances. The voluntary target level the clearing banks set for their operational

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[(1)]For more detail see "The role of the Bank of England in the money market" Bank of England Quarterly Bulletin, Vol 22, No 1, (March 1982), pp 91

CHART AI

TOTAL AND OPERATIONAL BANKERS' BALANCES

The dashed line shows total bankers' balances. After August 1981 the solid line shows balances held under the ½ per cent cash ratio and the difference between the solid and dashed line are observed operational bankers' balances. Before August 1981 the solid line is calculated as 1½ per cent of ELs.

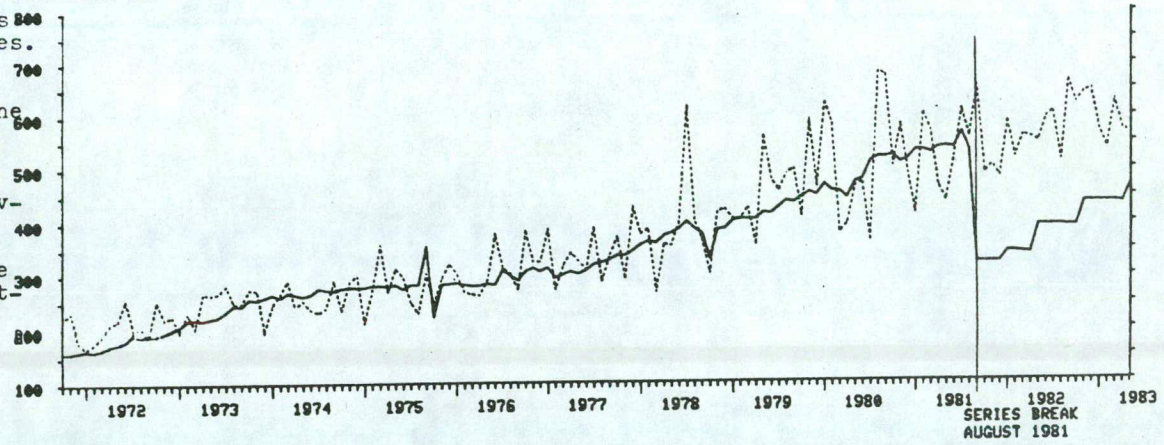


CHART AII

BANKERS' BALANCES INCLUDED IN PUBLISHED M0

Prior to August 1981 all bankers' balances were included in M0 and the series is the same as the dashed line in Chart AI. After August 1981 only operational balances are included in M0 ie the difference between the solid and dashed line in Chart AI.

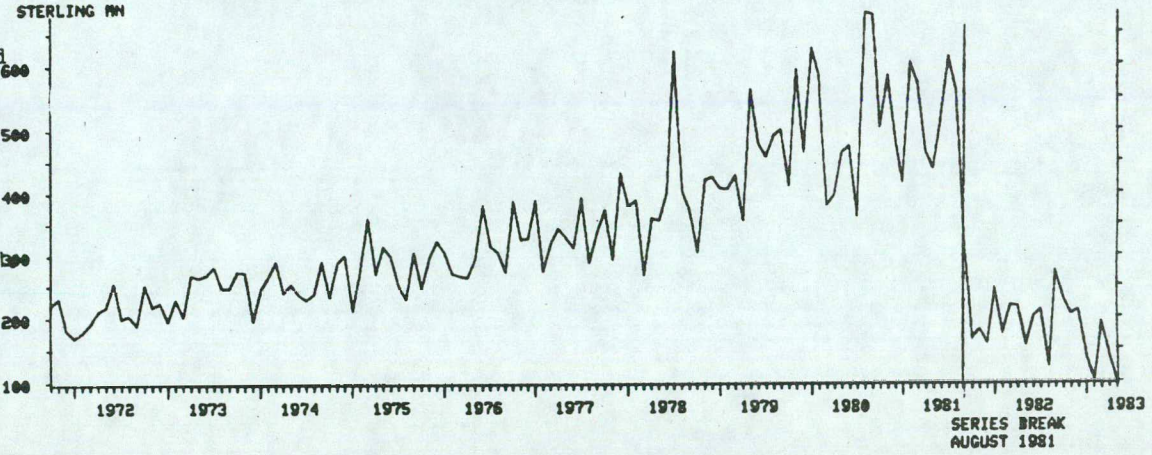
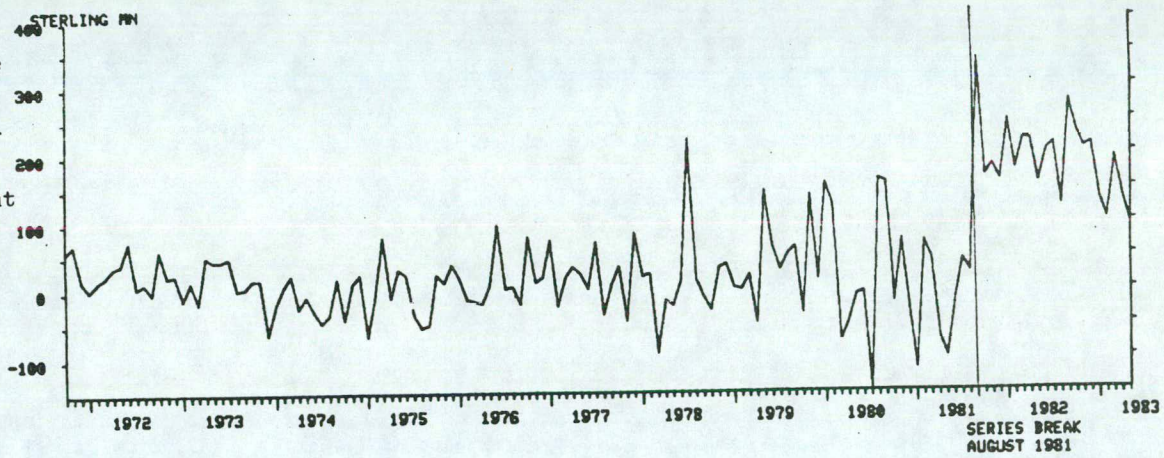


CHART AIII

CONSTRUCTED OPERATIONAL BANKERS' BALANCES

This chart plots the difference between the solid and dashed line in Chart AI. Before August 1981 the operational balance series is constructed by subtracting 1½ per cent of ELs from total bankers' balances.



deposits has to be sufficient to meet the unforeseen fluctations in payments. The size of these forecast errors will reflect, inter alia, the quality of information on the flow of payments and receipts and the skill of participants in the money market.

The cost to banks of holding operational balances is the interest foregone in retaining funds in a non interest bearing form. If there were quantifiable costs involved in running short of operational balances, the stock of operational balances could be sensitive to the level of market interest rates. A model developed by Sprenkle and Miller (1980), shows that the interest sensitivity of precautionary balances is related to the penalty cost of running short of money. However, banks are not allowed to run overdrafts with the Bank of England, which means that operational balances are unlikely to be interest sensitive.

The Sprenkle-Miller model considers the optimal holding of precautionary balances, under different assumptions about the cost of the availability of overdrafts, when there are random forecast errors in the flow of receipts and payments. Model III (page 415) in their paper examines the case where there is a large fixed cost involved in overdrawing an account.

Let v be the fixed cost of running short of precautionary balances, i the overnight interbank rate, which measures the opportunity cost of holding funds in a non interest bearing form, and A the target level of precautionary balances, which is to be optimised. The forecast error in the current days flow of receipts and payments, denoted x, is assumed to be a random variable distributed as f(x), with a zero mean. Over the range of x from $-\infty$ to A there will be positive precautionary balances with an opportunity cost of i per pound. Over the range from A to ∞ the transactor will be in overdraft and will incur the penalty charge of v. The total cost to the transactor can therefore be written

$$TC = i\int_{-\infty}^{A}(A-x)f(x)dx + v\int_{A}^{\infty}f(x)dx$$

Minimising with respect to A,

$$\frac{dTC}{dA} = i\int_{-\infty}^{A}f(x)dx + vf(A)$$

$$= iF(A) + vf(A)$$

where F(A) represents the cumulative density function

Setting $\frac{dTC}{dA} = o$ for a minimum gives

$$\frac{F(A^*)}{f(A^*)} = \frac{v}{i}$$

where A* is the optimum target level for precautionary balances. The greater is v, the penalty for running an overdraft, and the smaller i, the market interest rate, the greater will be A*. The effects of a change in market rates on A* is given by

$$\frac{\partial A^*}{\partial i} = - \frac{F(A^*)}{iF(A^*) - vf'(A^*)} < 0$$

which approaches zero as v approaches infinity.

When the overnight interbank rate is entered (in current or lagged form) in an equation explaining the constructed operational balance series estimated over the period 1972 M1 - 1983 M12, it has a correct negative sign but is never statistically significant. The simplest empirical explanation, which is analytically somewhat unsatisfactory, is that the end-month stock of bankers' operational balances follow a random path around a target level which depends on the monetary control regime operated by the authorities. The random fluctuations reflect the daily forecast errors in the expected flows of payments and receipts on the last day of each banking month. Including the DMCR shift dummy, to account for the change in the monetary control regime in August 1981 (see page 19 of the main text), the equation for the constructed end banking month bankers' operational balance series (OPBDEP) is:

$$\begin{array}{lll} \text{OPBDEP} = & 181.5 & - 167.9 \text{ DMCR} \\ & (17.3) & (14.4) \end{array}$$

$$\bar{R}^2 = 0.59, \quad DW = 1.93, \quad SE = 55.5, \quad LM(12) = 17.2$$

The addition to the equation of interest rate and bank balance sheet data does not generally improve the fit of this equation.

Till money

Monetary sector holdings of till money (or vault cash) are used to meet withdrawals in notes and coins. Holdings of till money have not recently been subject to direct control, although at times they may have been temporarily distorted by the factors outlined in Annex 1 section C.

A similar precautionary balance model can be applied to holdings of till money as used for banks' operational balances. The consequences to a commercial bank of running short of cash, combined with the fixed costs and delays in moving currency to bank branches, are likely to reduce the interest sensitivity of holdings of till money. Banks' target level for till money should, however, be related to their projections about the general demand for cash,

which is likely to be highly seasonal, and factors which influence the amount of cash supplied through the banking system, eg the growth in the population holding bank current accounts. The following estimated equation allows for these factors

$$\text{Ln Till} = \underset{(6.69)}{3.169} + \underset{(6.00)}{4.68}\ \text{ln Till}_{-1} + \underset{(1.81)}{0.69}\ \text{Ln}\hat{\text{NC}} + \underset{(6.66)}{0.012}\ \frac{\text{CA}}{\text{POP}}$$

+ seasonal and shift dummies

$\bar{R}^2$ = 0.96, SE = 0.035, DW = 2.24, Estimated Period 1972M1-1982M12

where Ln Till is the log of the till money series;

Ln $\hat{\text{NC}}$ is the log of the demand for notes and coin projected using the equations estimated in the main text;

CA/POP is the proportion of the population holding bank current accounts;

The shift dummies allow for the various distortions to the till money series noted in Annex 1C.

There is little evidence that till money holdings respond negatively to a rise in interest rates. The number of cash dispensers was also tried in the equation, but this was also also non-significant. The indications are that till money is related to the general growth in the demand for cash, seasonal factors, some special factors and to the number of people holding current accounts.

The sum of till money plus the constructed bankers' operational balance series was examined as the dependant variable in the regression. The results are

$$\text{Ln(Till + OPBDEP)} = \underset{(83.1)}{6.028} + \underset{(1.29)}{0.893}\ \text{Ln}\hat{\text{NC}} + \underset{(21.7)}{0.024}\ \frac{\text{CA}}{\text{POP}} \underset{(4.68)}{-0.140}\ \text{DMCR}$$

+ seasonal and shift dummies

$\bar{R}^2$ = 0.905, SE = 0.064, DW = 1.98, Estimated Period 1972M1-1982M12

Where the variables are defined as above.

ANNEX 3

DATA SOURCES AND DEFINITIONS

Monetary aggregates

The monetary aggragates examined are

(i) notes and coin in circulation outside the banking system

(ii) the wide monetary base

(iii) non interest bearing sight deposits

(iv) non interest bearing M1

All data are seasonally unadjusted end banking months. Source: Bank of England Quarterly Bulletins

Innovation variables

CA/POP: the number of bank current accounts divided by the total (home) population.
The home population is taken from table 2.1 of the Monthly Digest of Statistics.
The number of bank current accounts, 1966-70, refers to the total number of current accounts held with all UK banks (Source: Inter Bank Research Organisation). Data prior to 1971 have been scaled to be consistent with the post 1971 data.

BS/POP: The total number of building society share accounts divided by the total (home) population. The source for the total number of building society share accounts is the "BSA Bulletin", Building Society Association, (October 1983).

CDA: The total of automatic teller machines (ATM's), and first and second generation cash dispenser machines for total UK banks. The information on cash dispensers begins in 1967. Banks started to introduce on-line dispensers from about 1973 and by end-1982 nearly all the first generation cash dispensers had been replaced by on-line terminals (Source: Inter Bank Research Organisation.)

CC: The sum of credit cards issued by Access, American Express and Barclaycard. Access was first introduced in 1973, data on

American Express cards are available back to 1970 and for Barclaycards back to 1966 (Source: Inter Bank Research Orgnaisation.)

Transaction and price variables

The source for the two transaction variables, total consumer expenditure and personal disposable income, and the deflator for total consumer expenditure is Economic Trends. Data are consistent with the July 1983 edition. All data are seasonally unadjusted.

Interest rate

The short-term interest rate series is the end-month three-month Local Authority rate prior to October 1964, when the three-month inter-bank rate is unavailable; the end-month three-month inter-bank rate between October 1964 and October 1977; and the monthly average of daily figurees for the three-month inter-bank rate after October 1977. Source: Bank of England Statistical Abstracts, Financial Statistics.

THE INTERPOLATION PROGRAM

The computer program used to interpolate from annual to quaterly observations fits a cubic polynominal in time to quarterly data points between inter year boundaries. The program starts by selecting five years as the base for interpolation, giving a total of 20 quarterly data points to be interpolated from five annual observations. The interpolated observations are assumed to fall at mid quarter. The interpolation program proceeds by minimising the residual sum of squares of the second differential of the cubic polynominal subject to the constraints that

(a) the sum of quarterly observations add up to the annual total;

(b) at inter-year boundaries the intercept and slope of the polynominals are constrained to be the same;

(c) the last year in the base is represented using a straight line;

(d) in all but the first five year base period, the first year in any five year base period is fixed as the interpolated values for the second year derived from the previous five year base period. In the first five year base period the first year is represented by a straight line.

The interpolation from quarterly to monthly data uses the same procedures except that:

(a) the inter-year boundaries are replaced by inter-quarter boundaries;

(b) interpolation is made at three points rather than four;

and (c) the five year base period is replaced by a five quarter base period.

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