

PO/CH/NZ/743

Part. A

PO/CH/NZ/743
Part. A

POLICY BACKGROUND
TO THE 1988 BUDGET

18-12-87

POLICY BACKGROUND
TO THE 1988 BUDGET

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CHANCELLOR

*(For F&SR: New
show tax as 6 of GDP
smet (pms) 1971/72, SRK
total & NWS.)*

*7. lower output (smaller purchase)
vs 3(iv) . Also vs effect of higher
inv rates on change!
Auton Inv. / effect of higher inv rates
The gov. -> NWS -> inv rates
Return no to gov?
Higher inv rates
gov. policy?*

FROM: SIR T BURNS
DATE: 18 DECEMBER 1987

- cc Chief Secretary
- Financial Secretary
- Paymaster General
- Economic Secretary
- Sir P Middleton
- Mr Anson
- Sir G Littler
- Mr Cassell
- Mr Scholar
- Mr Culpin
- Mr Odling-Smee
- Mr Peretz
- Mr Sedgwick
- Mr S Davies
- Mr Allan
- Mr C M Kelly
- Ms Turk
- Mr Franklin
- Mr Cropper
- Mr Tyrie
- Mr Call

Mr Battishill (I/Rev)
Mr Unwin (C & E)

POLICY BACKGROUND TO THE 1988 BUDGET

*Ch. 2/c
supers
(supers &
pms) -> NWS
(as tax)*

I attach my Chevening paper.

2. It is in the form of a main paper with three substantial annexes. The annexes contain some of the supporting evidence but are self-standing and are optional reading.

3. The main conclusions of the paper are as follows:

- (i) Over the past few years the UK economy has been performing well. UK growth and inflation have been much the same as they were during the 1950s and 1960s in contrast to the main industrial countries as a whole where output growth remains disappointing. There are signs of a return to the pattern of the 1950s and 1960s with a number of other indicators: profitability,

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productivity and the PSBR. Even so money GDP has been growing faster than set out in successive editions of the MTFs. Most of the excess has been due to faster growth of real output; but part is due to higher inflation.

- (ii) There is some evidence that the underlying supply performance of the economy has improved: faster growth of manufacturing productivity, improved rates of return and a better trade performance.
- (iii) There is no evidence that fiscal policy has been easier than intended. Even allowing for faster growth of output and privatisation proceeds the PSBR has turned out below expectations.
- (iv) The evidence on monetary policy is more ambiguous. Compared to the 1984 MTFs the exchange rate has been lower, suggesting an easing of monetary conditions. Compared to later editions there is no clear pattern.
- (v) The implication is that the setting of policy permitted a faster growth of money GDP than expected. To the extent that faster output growth has been sustainable a higher path for money GDP growth has been justified. But to achieve the original objectives for inflation tighter fiscal or monetary policy would have been necessary. One of the mechanisms leading to faster money GDP growth has been the sustained growth of earnings. Faster productivity growth has been reflected in earnings increase rather than lower inflation.
- (vi) If monetary policy is conducted to maintain the DM/£ exchange rate at around the present levels we expect to see downward pressure on money GDP as well as inflation.
- (vii) But if interest rates are directed towards the exchange rate they have a more limited role with regard to

domestic monetary conditions. This could cause conflicts for interest rate policy.

- (viii) If improved confidence, perhaps because of the Deutschemark link, leads to pressure for lower interest rates and so threatens domestic monetary conditions, there would be scope for stabilising sterling at a higher DM/£ rate.
- (ix) The October forecast, updated for the fall in share prices, shows public expenditure falling as a share of GDP; a negative PSBR of about 1 per cent of GDP after allowing for a fiscal adjustment of £6 billion over the next two years; and a relatively flat profile for non-North Sea taxes as a share of GDP, after fiscal adjustment.
- (x) The negative PSBR points to a further sharp decline in the public sector debt/income ratio. The ratio of net interest payments to GDP is projected to decline. A decline in the debt ratio can be justified in terms of privatisation proceeds, North Sea tax revenues and public pension liabilities.
- (xi) There is no net financing of the PSBR required even if privatisation proceeds are ignored. On the other hand the flow of private savings is projected to be below the level of private sector investment. This is an unusual combination. Private sector savings have been falling largely because of inflation, but there are other temporary factors at work, including pension contribution 'holidays' and the effect of financial liberalisation. Private sector investment is rising because of the transfer of investment from the public sector (particularly housing and the privatisation programme), higher profitability and the higher levels of capacity utilisation.

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- (xii) The implication is that the private sector will have to finance part of its investment from overseas, unless the PSBR is cut back further. Given the small size of the current account deficit in relation to the stock of net overseas assets, the availability of world financial capital, the improved rate of return and the possibly temporary nature of the fall in private sector savings there is no strong case for a further reduction of the PSBR compared to the projections.
- (xiii) Clearly there is substantial uncertainty about the figures for public sector finances. The scale of the tax receipts has been surprising. We cannot be sure that they are permanent. Given the very rapid growth of output this year there must be some risk that part is cyclical. On the other hand it may reflect the gearing of tax receipts in response to the faster underlying growth rate.
- (xiv) On balance we conclude that the projections of public finances are sustainable with the assumed fiscal adjustments in place. Even so there is not as much room to spare as might be suggested by the crude PSBR figure. The declining debt/income ratio has to be set against the pattern of privatisation proceeds, North Sea taxes and public pension liabilities; the low savings ratio combined with the strength of private sector investment means that any further increase in public sector borrowing may have to be financed by larger overseas capital flows; and although the general buoyancy of tax revenues looks permanent there is a substantial margin of error.



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POLICY BACKGROUND TO THE 1988 BUDGET

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ANNEXES

- A Medium-term economic developments
- B Money GDP prospects and policy framework
- C Review of the MTFS since 1984

POLICY BACKGROUND TO THE 1988 BUDGETPolicy frameworkPOLICY
FRAME
WORK

1. The aim of macro-economic policy is to bring about a progressive fall in the rate of inflation and to establish the conditions for a sustainable growth in output.

2. This is to be achieved by delivering an appropriate **medium-term path for money GDP**. That path has to take into account the initial rate of inflation and our estimate of the sustainable growth of output. For output growth to be sustainable it is important to maintain a suitable macro-balance within the economy; between public borrowing, taxation and public expenditure; between consumption and investment; and between the current account of the balance of payments and the natural flow of international capital. Otherwise there is a risk that pressures will build up which will force sharp changes in behaviour and, possibly, policy resulting in an interruption to steady output growth.

3. The observed path for money GDP is bound to fluctuate for a variety of reasons: world conditions; fluctuations in savings ratios; shifts in confidence; and unexpected developments in the pressure of monetary and fiscal policy. It is not possible to completely offset these fluctuations by policy adjustments nor should it always be desirable. The task of policy is to ensure that the medium-term path for money GDP is achieved, subject to any adjustments for changes in sustainable output growth. While not attempting to remove all short-term fluctuations policy should at least avoid being destabilising.

4. In principle both interest rates and fiscal policy affect money GDP. One approach to policy is to set interest rates and fiscal policy at levels which ensure that their joint impact delivers the money GDP we want; the particular mix of interest rates and fiscal policy is chosen from the point of view of its impact on the macro-balance of the economy.

5. Conceptually this approach is helpful, although in practice greater emphasis has been put on interest rates for achieving the

money GDP path. This is mainly because interest rates are effectively the only instrument that is available between Budgets although at Budget time it has been possible to alter the mix of interest rates and fiscal policy. In addition for a given money GDP, or exchange rate path changes to fiscal policy have a relatively small effect on activity and inflation in the short term (see Annex B, Table 2). The impact is also difficult to predict especially in later years, largely because it depends on how market confidence and the exchange rate in particular respond.

6. In what follows interest rates are discussed primarily in terms of their influence on money GDP and fiscal policy primarily in terms of its effects on macro-balance. The policy framework is discussed more fully in Annex B.

7. Interest rate changes exercise their greatest leverage on money GDP through the behaviour of the exchange rate which in turn has pronounced effects on inflation and net export demand. In addition they have a direct influence on consumer spending, fixed investment (especially house building) and stockbuilding.

TABLE 1: INDICATORS OF MONETARY CONDITIONS

	Money GDP growth (%)	M0 growth (%)	M3 growth (%)	M4 growth (%)	Exchange rate (1975=100)	House price inflation ¹ (%)
1980-81	13.9	7.1	16.4	15.9	98.2	18.8
1981-82	10.1	5.3	20.1	18.1	92.3	2.9
1982-83	9.2	3.2	17.2	16.3	88.0	2.7
1983-84	8.1	6.0	10.9	13.3	83.5	10.4
1984-85	7.3	5.5	9.6	13.2	76.2	8.3 (7.7)
1985-86	9.7	4.3	13.5	13.6	79.0	9.6 (8.7)
1986-87	6.6	4.3	19.0	15.2	71.5	17.4 (13.1)
Latest observation		4.9 ²	21.3 ²	15.2 ²	75.6 ³	15.9 ⁴ (14.6 ⁴)

¹Percentage increase in DoE New House Price (Completions) Index. Halifax Index in brackets (all houses).

²Twelve months to November, not seasonally adjusted except M0.

³17 December

⁴1987Q3 on a year earlier.

8. Interest rate decisions are made by reference to an assessment of monetary conditions. Some relevant indicators are shown in Table 1. In recent years emphasis has centred on two indicators, M0 and the exchange rate, although the growth of broad money and the behaviour of asset prices have also been taken into consideration.

9. M0 has been a useful indicator of monetary conditions. It has had a relatively stable velocity trend of about 3 per cent a year and although it can be no more than a short leading indicator of money GDP it has had a reasonably good record of giving the correct signals about the movement of money GDP.

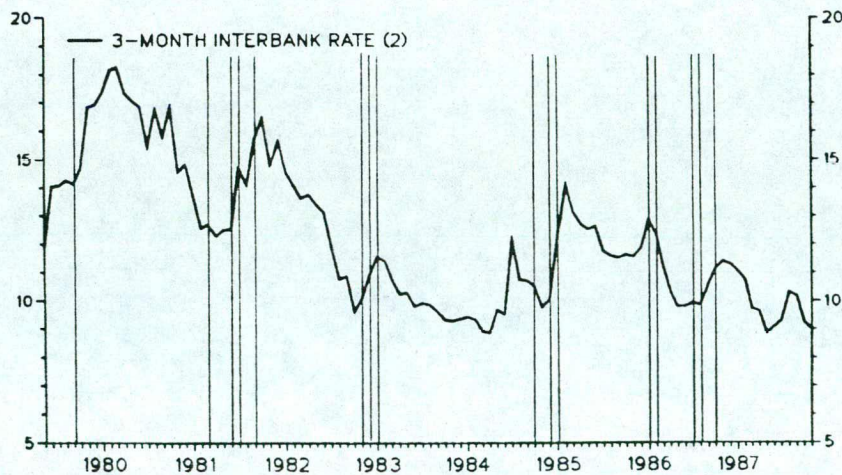
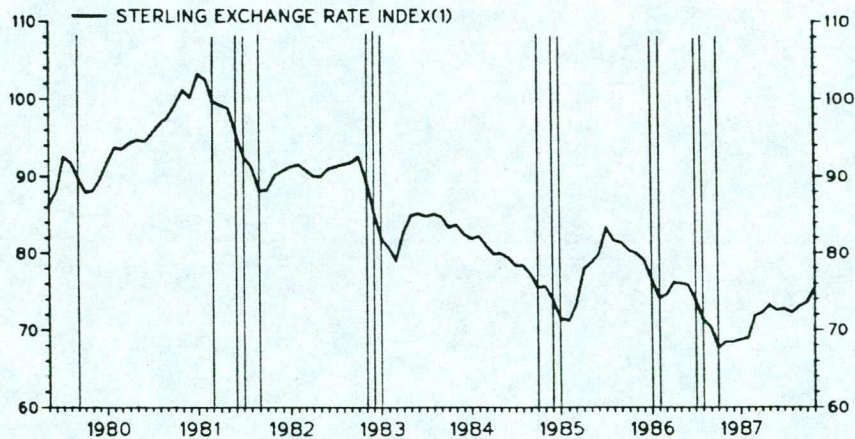
10. By contrast the behaviour of broad money has been difficult to interpret. Velocity has been declining since 1980 after increasing throughout the 1970s (see Annex A, Table 9). More recently the rapid acceleration of broad money growth seems to have been a factor in the strength of equity and house prices. Indirectly this may have been a factor leading to buoyant domestic demand growth.

11. The exchange rate has been an important factor in monetary policy decisions for many years. Chart 1 shows the monthly paths for the Sterling Exchange Rate index and the 3-month interbank rate since mid-1979. Periods of sharp exchange rate reductions have usually coincided with sharp upward movements of interest rates. The important role of the exchange rate in interest rate decisions is not surprising; it has a direct effect on money GDP growth and can exercise a powerful effect on inflation expectations. In the past year we have seen a move towards giving the exchange rate a greater weight in interest rate decisions. This is in reaction to two developments. The first has been the difficulty of establishing market credibility for M0. As an anchor for inflation expectations it is probably not sufficient on its own. By contrast the exchange rate has a well recognised role in this respect. The second development has been the greater emphasis on exchange rate stability among the G7 countries since the Louvre agreement. This has been a convenient framework within which to give an enhanced role to the exchange rate. For operational purposes it is the DM/£ rate that has been taken as the crucial link, partly because of the EMS framework and its relevance for UK industry, and partly because the DM has a sound reputation as an anti-inflationary currency.

12. The task of ensuring a sustainable macro-balance within the economy - both internal and external - falls primarily to fiscal policy. There are two aspects of fiscal policy: the level of public expenditure and taxation in relation to the size of the economy; and the difference between them, ie the budget deficit.

CHART 1

THE EXCHANGE RATE AND 3-MONTH INTERBANK RATE

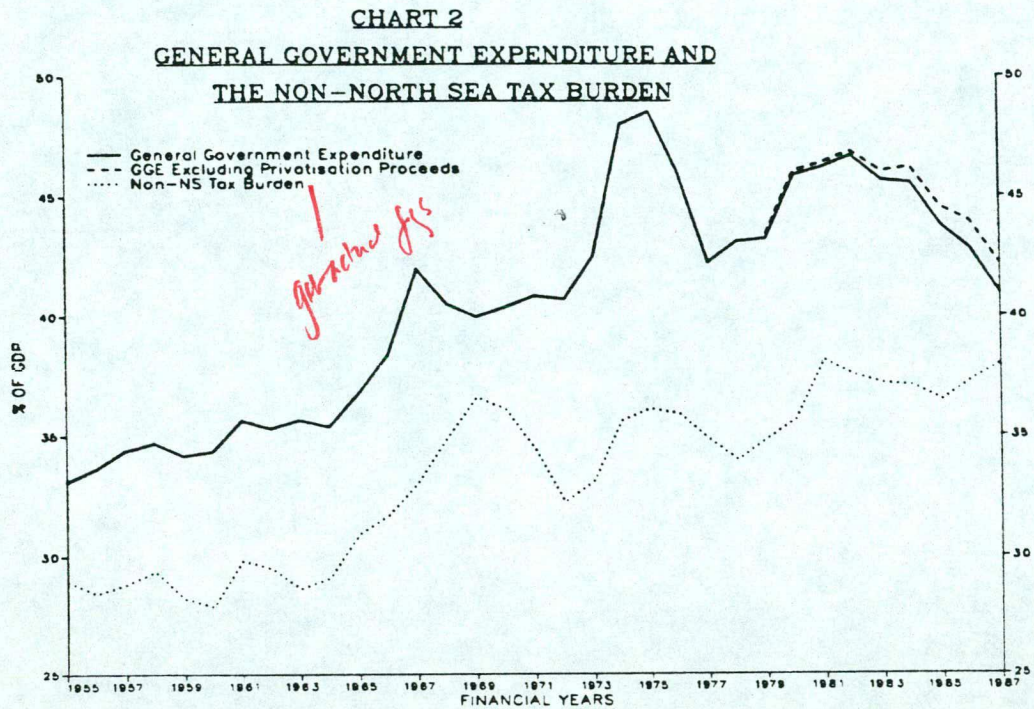


(1) MONTHLY AVERAGE
 (2) END OF MONTH
 (3) VERTICAL BARS INDICATE MONTHS IN WHICH THE EXCHANGE RATE DEPRECIATED BY MORE THAN 2 PER CENT

13. It has been an objective of policy to reduce the share of both public expenditure and taxation in the economy. As Chart 2 shows, during the 1960s and much of the 1970s the share of expenditure was rising, partly because of underlying demand for public services - health, education, etc; partly because of the growth of social security expenditure; and partly because of greater state

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intervention and growth of subsidies. The result was higher tax rates with all the accompanying problems of distortions, tax shelters and disincentives. The aim has been to reverse this process: to reduce distortions, to improve incentives and limit the use of tax shelters through lower tax rates and a more neutral tax system; and to improve efficiency by subjecting as much economic activity as possible to the discipline of the private sector.



14. The second aspect of fiscal policy is the judgement of the appropriate balance between expenditure and taxation - the budget deficit. This is a difficult judgement which cannot be made with any precision.

15. As set out in the Chancellor's Lombard speech a number of objectives have been taken into account in setting the medium-term path for the PSBR each year in the Budget: public sector debt should not rise as a percentage of GDP; the budget deficit should be capable of being completely financed in a non-inflationary way; and there should be scope for absorbing possible fiscal shocks.

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16. The constraint on the growth of the public sector debt ratio is intended to avoid any escalation of the burden of debt interest payments. This helps to maintain confidence in the sustainability of policy as a rising debt service burden clearly cannot continue indefinitely; and within an envelope of a declining ratio of public expenditure to GDP it clearly makes sense to keep the share of interest payments under control. This constraint has been met by reducing the PSBR as a percentage of GDP as the growth of money GDP has declined. At zero inflation and a growth rate of $2\frac{1}{2}$ per cent it points to a PSBR of no more than 1 per cent of GDP.

17. The objective of maintaining a budget deficit that is capable of being comfortably financed in a non-inflationary way is obviously less precise and requires some difficult judgements. It is essentially concerned with the balance and hence sustainability of output growth. The balance of the PSBR, available domestic savings and the flow of overseas capital lies at the heart of it. If the PSBR is high in relation to available domestic savings, either domestic investment will be squeezed or there will be a current account deficit and a need for a capital inflow from overseas. If investment suffers, the ability of the economy to continue at current growth rates will be impaired. If instead there is a current account deficit there may be little difficulty initially if a sustained capital inflow is forthcoming, although the rising burden of interest payments abroad would in time pose a problem. If a sustainable inflow is not forthcoming there will be upward pressure on interest rates and/or downward pressure on the exchange rate. At some point both violate the objective of comfortable non-inflationary finance. It is therefore necessary to assess the PSBR in relation to the flow of savings; the prospects for investment and the current account; and the potential flow of overseas capital.

18. The present position of the United States is a classic example of the failure to heed these principles for the conduct of fiscal policy. The budget deficit has been high in relation to internal savings. The burden of interest payments has progressively risen putting further pressure on public expenditure. Domestic demand has grown rapidly and the combination of a large capital inflow and

current account deficit has emerged. The exchange rate has been highly unstable. Initially high interest rates and the strength of capital inflows pushed up the dollar to excessive levels. More recently private sector capital inflows have dried up and it is proving very difficult to finance the deficit without unacceptable increases of interest rates. As a result the dollar is currently very weak.

MTFS
SINCE
1984

The MTFs since 1984 and recent performance

19. Before considering monetary and fiscal policies for the coming years it is instructive to look at what has been happening in recent years. The data for money GDP, real GDP and inflation are set out in Table 2. This section compares recent developments with what we expected in the MTFs since 1984, and also, where appropriate, with developments in the 1950s and 1960s. Details are presented in Annexes A and C.

TABLE 2: MONEY GDP, OUTPUT AND INFLATION
(Percentages)

	Money GDP Growth	Output ₁ Growth	----- INFLATION ----- GDP Deflator Growth	RPI Growth
<u>ANNUAL AVERAGES</u>²				
1955-64	6.2	2.9	3.3	2.9
1964-73	9.1	3.0	6.3	5.9
1973-79	17.8	1.4 (0.8)	16.1	15.7
1979-83	11.2	0.4 (-0.1)	11.0	10.8
<u>FINANCIAL YEARS</u>				
1982-83	9.2	1.8 (1.1)	7.1	7.1
1983-84	8.1	3.3 (3.0)	4.6	4.7
1984-85	7.3	2.5 (2.4)	4.4	5.1
1985-86	9.7	3.6 (3.7)	6.0	5.9
1986-87 ³	6.6	3.3 (3.4)	3.0	3.2
1987-88 ³	9.0	4.1 (4.6)	4.6	3.9

¹Non-North Sea output growth in brackets.

²Growth rates measured from first year to last.

³Figures are from the October forecast.

20. The broad picture is one of faster money GDP growth than expected, mainly because of faster output growth. Although

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inflation has not come down very much, it is expected to be only 1 percentage point higher in 1987-88 than was assumed for this year in the 1984 MTFs. By contrast output growth is expected to be 2 percentage points higher this year. Since 1984 money GDP growth, output growth and inflation have all been at levels similar to those of the 1950s and 1960s.

21. Possible explanations for the faster than expected growth of output and money GDP are world developments, monetary and fiscal policies, demand pressures and supply performance. These are taken in turn.

22. World developments cannot explain this faster growth. World activity has grown more slowly than expected, and real oil and commodity prices have fallen. While the latter may have contributed to better supply performance, they have not raised money GDP growth directly. It is interesting that the UK economy has regained the growth rates of the 1950s and 1960s despite the fact that the world economy has not done so.

TABLE 3: INDICATORS OF POLICY STANCE

(percentages, except exchange rate which is 1975 = 100)

	Money GDP Growth	MO Growth	Short- term interest rates	Exchange rate	PSBR/GDP ratio (excluding privatisation proceeds)
<u>ANNUAL AVERAGES</u>¹					
1955-64	6.2	3.7	4.7	144.2	2.5
1964-73	9.1	5.8	7.7	132.1	2.5
1973-79	17.8	12.7	11.1	90.7	6.5
1979-83	11.2	5.7	13.2	91.3	3.7
<u>FINANCIAL YEARS</u>					
1982-83	9.2	3.2	11.5	88.0	3.3
1983-84	8.1	6.0	9.7	83.5	3.5
1984-85	7.3	5.5	10.9	76.2	3.7
1985-86	9.7	4.3	12.1	79.0	2.3
1986-87 ²	6.6	4.3	10.5	71.5	2.0
1987-88 ²	9.0	5.6	9.2	73.4	0.9

¹Growth rates measured from first year to last; exchange rate is average of years excluding the first year; PSBR/GDP ratio is average of financial years excluding the first financial year.

²Figures are from the October forecast.

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23. Turning to policies, the outturn for money GDP, M0, the exchange rate, interest rates and the PSBR are set out in Table 3. Fiscal policy has tended to be tighter than intended, mainly as a result of higher than anticipated revenues. The role of monetary policy is more ambiguous. Interest rates have been higher than envisaged in the 1984 MTF5; but the exchange rate has been lower. The lower exchange rate was fully reflected in later editions of the MTF5. Relative to the 1986 MTF5 interest rates have been less than expected.

24. The implication is that the setting of policy instruments permitted a faster growth of money GDP than expected. To achieve the original objectives for money GDP tighter fiscal or monetary policy would have been necessary.

25. Looking at policy over a longer time horizon, both fiscal and monetary policies appear to be tighter now than they were in the 1950s and 1960s. They are also relatively tight by international standards.

26. Demand pressures from private sector saving and investment behaviour may be an explanation for higher money GDP growth than expected. In that case we should have seen either a greater fall in saving ratios or a greater rise in investment. Savings by the personal and probably also the total private sector have fallen faster than expected in recent years, although errors in the data obscure what has really been happening. As private investment has turned out more or less as expected, the conclusion is that demand pressures from the private sector have contributed to the higher than expected money GDP.

27. It is on the supply side that the most striking developments have occurred. As Table 4 shows productivity growth in manufacturing in recent years has been higher than in the 1950s and 1960s. Although productivity growth in the rest of the economy has been somewhat lower than before 1973, total non-North Sea productivity growth of 2½% a year since 1983 is very similar to the rate of growth between 1955 and 1964 (although lower than that between 1964 and 1973). We did not fully anticipate the improvements in productivity that have occurred.

TABLE 4: PRODUCTIVITY GROWTH⁽¹⁾
(Percentages)

	Manufacturing	Non-North Sea GDP
1955-64	2.7	2.2
1964-73	3.8	2.7
1973-79	0.7	0.6
1979-83	3.6	1.4
1983-87	4.7	2.3

Handwritten notes in red: } 1979-87, } 4.15, } 1.85

(1) Growth rates measured from first year to last

28. There has been a related improvement in trade performance, in the sense of the excess of exports over imports for given levels of UK and world demand and competitiveness. Import penetration has probably increased less than we would have expected and the share of exports has been higher than expected. The rise in profitability which also exceeded expectations is another sign of the supply side improvement.

29. To the extent that faster output growth has been sustainable a higher path for money GDP growth has been justified. But to achieve the original objectives for inflation tighter fiscal or monetary policy would have been necessary. Part of the explanation for the higher inflation than expected in the 1984 MTFs could be the easing of monetary conditions that occurred in 1984. Another part is the growth of pay, which has continued to be higher than expected. This has been less of a problem than it could have been because productivity growth also turned out higher than expected, partly as a consequence of pay pressure. But the overall output-price split would have been more favourable and inflation closer to the MTFs path if pay ^{had} decelerated instead of being stuck at over 7% a year.

30. Although money GDP growth and the price-output split have been similar in recent years to what they were in the 1950s and 1960s, there are a number of differences in other respects. Profitability may still be lower; and the ratio of investment to GDP is lower than it was from the mid-1960s onwards although its quality may now be higher: a higher proportion is in the private sector where it is less favoured by taxes and subsidies than it used to be. Real

interest rates are higher. Net overseas assets are higher, but total national wealth (including both overseas assets and domestic tangible assets) is probably no higher relative to income than in 1973. The level of public expenditure and taxation are much higher relative to GDP than they were in the 1950s and 1960s although there has been some decline in the ratio of expenditure over the past four years. Total (public and private) consumption is also higher relative to GDP although not the private component on its own.

Developments over the past year

DEVELOP-
MENTS
OVER
PAST
YEAR

31. As background it is also interesting to compare performance over the past year with the outlook at last year's Chevening meeting and with this year's MTFS. Last year we discussed the puzzle of the strength of money GDP growth in the face of a relatively tight policy stance. In the event it has been even stronger despite a sharp fall in the budget deficit and some strengthening of the exchange rate.

32. An important feature of the growth of money GDP has been better than expected real output growth. Some of this may be cyclical. But the extent of rapid productivity growth, improved profitability and rising share of world trade point to continued better supply performance. On the demand side several factors are of note: the growth of money GDP for the previous year, 1986-87, has been revised upwards; pay has been growing more rapidly, partly because of higher overtime; export growth has been rapid despite disappointing growth elsewhere in the industrial countries; and the private sector savings ratio may have declined further, although the picture is obscured by the large residual error.

33. Faster growth of money GDP has been accompanied by faster MO growth; present estimates put this close to the upper limit of its range for this financial year. And broad money has continued to grow rapidly. On the other hand the exchange rate has been stronger than expected. The weakness of the dollar combined with the policy of holding the DM/£ exchange rate has meant an upward drift of the sterling index. Interest rates have been a little lower than ~~expectations.~~ *expected.*

34. The PSBR looks like turning out well below expectations. Our best guess is for a small negative PSBR in 1987-88. Some of this has been cyclical reflecting rapid output growth. But there has also been a greater increase in tax revenues than would have been expected given the rise in output.

35. A year ago we argued that fiscal policy should be tightened and that the bulk of any fiscal adjustment should go to reduce the PSBR. This judgement reflected a number of factors: the need to tighten the overall policy stance; the existing high real interest rates; the worries about the balance of payments and the high ratio of consumption in GDP. One aim was to improve confidence in the exchange rate without suffering the effects of higher mortgage rates on inflation. That tightening of the fiscal stance has been achieved together with some reduction of taxes. The impact on the exchange rate-interest rate trade-off has been generally welcome although the strength of sterling has at times reached embarrassing proportions.

36. The reduction in the PSBR has not been reflected in a better recorded balance of payments. Instead it seems to have been accompanied by lower private sector savings, although the situation is confused by a large residual error in the data. It is likely that the private sector savings ratio has been less than expected, or investment higher. The alternative explanation for the data that we have is that the current account balance may be underestimated, in which case the lower PSBR would be linked to a better balance of payments.

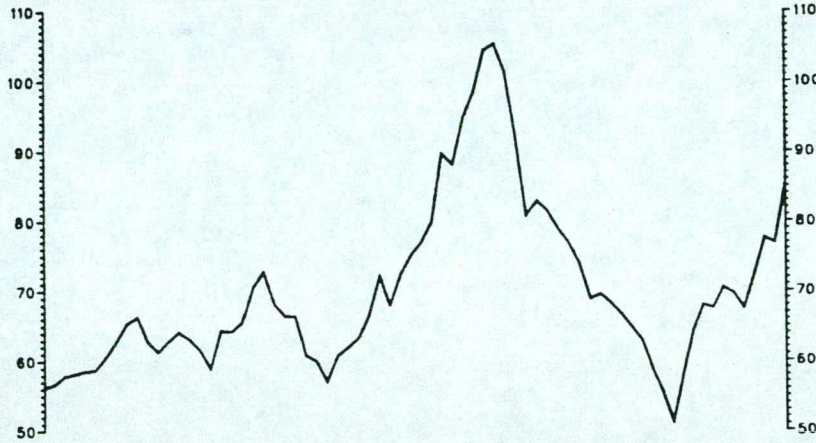
Monetary policy in the 1988 MTFS

37. If present policy towards the exchange rate continues it will be necessary to make some changes to the presentation of monetary policy in the MTFS. The details of such changes can be decided later but at this stage we should consider the principles. In this section we consider in turn the path of inflation and money GDP if sterling is effectively linked to the DM, the implications for interest rates and the role of exchange rate realignments. These issues are discussed at greater length in Annex B.

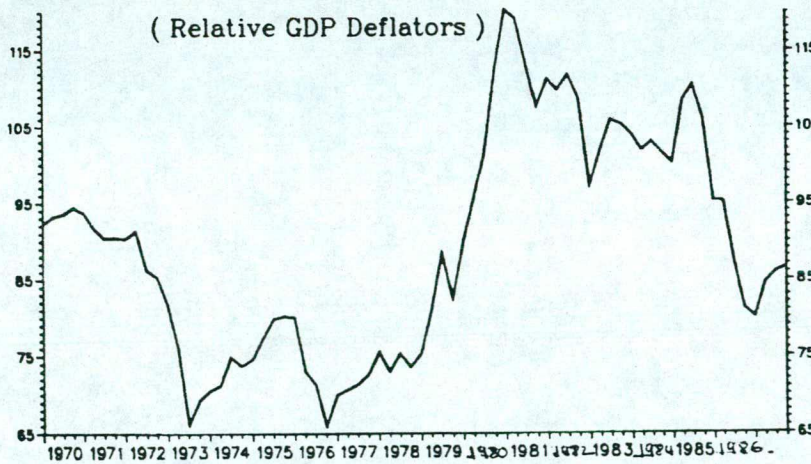
38. Ceteris paribus we would expect that maintaining the DM/£ exchange rate at current levels would exercise gradual disinflationary pressure. The German inflation rate is very low and by persisting with a stable exchange rate against the DM we would expect to see UK inflation gradually converge towards the German rate. Exporters and producers of tradeable goods for the home market will be constrained in the prices they will be able to charge. In addition key import prices are likely to grow slowly. By operating as a drag on inflation they improve the climate for wage bargaining.

CHART 3

REAL DOLLAR - STERLING EXCHANGE RATE
(Relative GDP Deflators)



REAL DM - STERLING EXCHANGE RATE
(Relative GDP Deflators)



1980=100

39. The initial degree of disinflationary pressure depends upon the level of the real exchange rate at the outset. If it is low there is some room for manoeuvre before the constraint starts to bite. If it begins at a bracing level the constraint could bite quite quickly. At the moment it is difficult to see a pronounced bias in either direction. As shown in Chart 3 the real sterling exchange rate is historically high by comparison with the dollar; but broadly in line with its historical average by reference to the DM. If the dollar continues to weaken the overall degree of pressure would increase even with an unchanged DM/£ rate.

40. Whilst sticking to the present DM/£ exchange rate should bring convergence of UK and German inflation rates they may not come completely into line. This is because of differences in productivity growth rates. Currently the UK is experiencing faster growth of productivity in manufacturing than Germany, and because the level is below the German level there is scope for this to continue. This means that manufacturing earnings in the UK could rise faster than in Germany without the fixed exchange rate putting any pressure on UK profit margins. If earnings growth in non-manufacturing is in line with manufacturing earnings in each country but there is less difference between productivity growth rates in non-manufacturing, the overall German inflation rate could be persistently lower than the UK inflation rate - by maybe 1-1½ per cent - reflecting the lower growth of non-manufacturing unit labour costs. This would be consistent with the experience during the fixed exchange rate era of the 1960s: countries with the fastest growth of manufacturing productivity tended to have the highest inflation rates, although the differences were not large. (See Annex B for the evidence.)

41. A fixed exchange rate may be more intelligible to wage bargainers than a fixed money GDP path. If so an increase in the credibility of the DM/£ link might lead to a fall in pay growth.

42. Taking account of these various factors our best guess is that holding to the present DM/£ rate will deliver a declining path for money GDP growth. In Table 5 are shown projections for money GDP growth and the exchange rate on different assumptions. With the

DM/£ rate between 2.90 and 3.00, as in the third case, money GDP growth is expected to decline at about the same rate as shown in the MTFS, which incidentally assumed a declining DM/£ rate.

43. If interest rates are directed at maintaining the DM/£ link there are limits to the extent to which they can also take account of domestic monetary factors. Conflicts could therefore arise. For example if the market confidently expected that the exchange rate link would be maintained UK interest rates might be pushed down and the interest rate differential diminished. This would tend to ease the overall pressure on monetary conditions in the UK and could be a de-stabilising factor. If the improvement in confidence was thought to be temporary it could be met by intervention or lower interest rates. But if lower interest rates were permanent and were a threat to inflation it would make more sense to revalue against the DM.

(the v. change balance) (1987-88)

TABLE 5: PROJECTIONS OF MONEY GDP GROWTH AND EXCHANGE RATES

	1987-88	1988-89	1989-90	1990-91
1987 MTFS				
Money GDP Growth (%)	7.5	6½	6	5½
Effective Exchange Rate ²	70	69	67	65
DM/£ Exchange Rate	2.85	2.70	2.50	2.40
October Forecast¹				
Money GDP Growth (%)	9.0	7½	6½	6
Effective Exchange Rate ²	73	74	73	73
DM/£ Exchange Rate	3.00	2.90	2.85	2.75
October Forecast¹ with Improved Confidence				
Money GDP Growth (%)	9.0	7½	6	5
Effective Exchange Rate ²	73	75	76	78
DM/£ Exchange Rate	3.00	2.95	2.95	2.90

¹Adjusted for stock market fall

²1975 = 100

44. Within this approach to monetary policy there is in principle some scope for exchange rate realignments, as in the case of the EMS (see Annex B for details). However, as part of the process of increasing credibility in this approach to anti-inflationary policy, it will be difficult to take advantage of this in the early years other than to revalue against the DM. If we become concerned that the DM link will not deliver the MTF's path for money GDP there would be a case for a step change. But we are not in a position to make that judgement at the moment. What is easier to conclude is that there is little scope for a depreciation against the DM if we wish to deliver a clear declining path for money GDP growth and maintain credibility.

Fiscal policy

45. The general approach to fiscal policy was set out earlier. In this section we attempt to put some numbers to these general concepts.

46. As a basis for the analysis we have used a set of projections from the October forecast, adjusted for the fall in share prices. By examining these projections we can ask how they perform relative to the objectives of fiscal policy set out earlier.

47. The projections show public expenditure falling as a share of GDP (Table 6). General Government expenditure (excluding privatisation proceeds) falls from 42.2 per cent in 1987-88 to 40.7 per cent by the end of the MTF's period. The PSBR is negative at close to 1 per cent of GDP through the period, meaning broad balance if privatisation proceeds are excluded. After making allowance for a cumulative fiscal adjustment of £6 billion over the next two years with more to follow there is a relatively flat profile for non-North Sea taxes as a share of GDP. They are projected at a level above the projected outcome for this year. In other words because of the projections of public expenditure and the buoyancy of North Sea taxes at unchanged rates, current projections show substantial scope for tax reductions coupled with a step down in the PSBR.

Fiscal Policy

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TABLE 6: PUBLIC FINANCES TO 1990-91
(Per cent of Money GDP)

	OCTOBER FORECAST ¹				
	1986 -87	1987 -88	1988 -89	1989 -90	1990 -91
General Government Expenditure Excluding Privatisation Proceeds	43.9	42.2	41.5	41.1	40.7
Privatisation Proceeds	1.1	1.3	1.3	1.2	1.2
General Government Receipts ²	41.6	41.1	41.0	40.5	40.1
Of which:					
<i>see previous yrs</i> Non-North Sea Taxes ²	36.7	37.1	37.5	37.3	37.3
North Sea Taxes	1.2	1.1	1.0	0.9	0.7
General Government Borrowing Requirement	37.9	38.2	38.5	38.2	38.0
PCMOB	-0.4	-0.2	-0.4	-0.5	-0.5
PSBR	0.9	-0.4	-1.3	-1.1	-1.1
<i>PSBR ex Pr Pr</i>	2.0	0.9	0.0	0.1	0.1
Memorandum Items					
Net Debt Interest	3.0	2.9	2.7	2.5	2.3
Cumulative Fiscal Adjustment	0	0	0.9	1.3	1.7

¹Adjusted for stock market fall.

²After fiscal adjustment.

of hand - Mr. Cuthbert?
48. The negative PSBR means a further sharp decline in the public sector net debt/income ratio bringing it down to under 30 per cent by 1990-91 (the arithmetic is set out in Table 7). It would then be similar to the current levels in Canada, Germany and the US, but above those in France and Japan, and lower than in Italy. The ratio of net interest payments to GDP is declining over the period despite real interest rates higher than the growth rate (Table 6). So looking at the debt burden alone there is no reason to believe that the projections are not sustainable.

49. There are three further factors that need to be taken into account in judging the profile of the debt/income ratio: privatisation and other asset sales; the profile of North Sea revenues; and accumulating pension liabilities.

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TABLE 7: THE PSBR AND CHANGES IN PUBLIC SECTOR DEBT
(£ billion)

	1979	1980	1981	1982	1983	1984
	-80	-81	-82	-83	-84	-85
PSBR	10.0	12.7	8.6	8.8	9.7	10.2
Adjustments ²	-2.1	+1.6	+1.9	-1.2	+2.7	+3.3
Change in Net Public Sector Debt	7.9	14.3	10.5	7.7	12.4	13.5
Net Public Sector Debt (end year)	102.8	117.1	127.6	135.3	147.7	161.2
Money GDP ³	223.6	248.0	272.1	295.6	317.9	246.5
Net Debt Ratio (% , end year)	46.0	47.2	46.9	45.8	46.5	46.5

Memo Item:

Privatisation Proceeds (% of GDP)	0.2	0.2	0.2	0.2	0.4	0.6
--------------------------------------	-----	-----	-----	-----	-----	-----

OCTOBER FORECAST¹

	1985	1986	1987	1988	1989	1990
	-86	-87	-88	-89	-90	-91
PSBR	5.8	3.4	-1.5	-6.0	-5.4	-5.5
Adjustments ²	+0.4	+1.0	+0.7	+0.6	+0.4	+0.5
Change in Net Public Sector Debt	6.2	4.4	-0.8	-5.4	-4.9	-5.0
Net Public Sector Debt (end year)	167.4	171.8	171.0	165.6	160.7	155.7
Money GDP ³	373.3	403.7	436.8	467.1	497.7	528.0
Net Debt Ratio (% , end year)	44.9	42.6	39.2	35.5	32.3	29.5

Memo Item:

Privatisation Proceeds (% of GDP)	0.7	1.1	1.3	1.3	1.2	1.2
--------------------------------------	-----	-----	-----	-----	-----	-----

¹Adjusted for stock market fall

²Adjustments required to reconcile the PSBR with changes in net public sector debt. They comprise discounts and uplift on gilts, revaluations of net foreign currency debt, timing and coverage adjustments.

³GDP at current market prices for year centred on 31 March.

TABLE 8: CONTRIBUTIONS TO CHANGE IN NET DEBT RATIO 1987-88 TO 1990-91
(Per cent of GDP)

Net debt ratio at end 1987-88		39.2
Essentially capital transactions		-5.2
Of which:		
Privatisation proceeds	-3.7	
Council house sales	-0.9	
Transitory component of North Sea revenues		-2.1
Other		-2.4
Net debt ratio at end 1990-91		29.5

50. There is a good case for reducing the debt ratio to the extent of privatisation proceeds. These amount to a cumulative 3.7 per cent of GDP up to 1990-91 (Table 8). Similar capital transactions account for another 1½ per cent, most of which is council house sales. Despite the fall of oil prices, tax revenues from the North Sea are still above our calculations of the permanent income. The difference is not large - maybe ½ per cent of GDP a year; but during this period there is a good argument for taking advantage of these additional revenues to reduce the debt/income ratio. The cumulative amount implies a reduction in the ratio of 2 per cent of GDP to 1990-91. The financing of future pension obligations points in the same direction. The pay-as-you-go system combined with the continuing build up of obligations mean that current payments are less than would be required under a funded scheme. Again there is a good case for reducing the debt/income ratio during the period of build-up.

at this stage - show contribution to net debt!

51. Taken together these three factors mean that the fall in the debt/income ratio probably overstates the strength of the public sector's balance sheet without changing the conclusions about sustainability.

52. The second objective of fiscal policy is to maintain a PSBR that can be comfortably financed. Clearly with a negative PSBR there is no net 'financing' requirement although there will be a

need for gilt sales to finance redemptions. Even after allowing for privatisation the PSBR is in broad balance. However there are some unusual features in the behaviour of the private sector.

53. It is interesting to examine recent and projected behaviour of the budget deficit, domestic private sector savings and the current account (as a proxy for the flow of overseas capital) in recent years. Further details are presented in each of the Annexes.

CHART 4
PRIVATE SAVINGS AND INVESTMENT

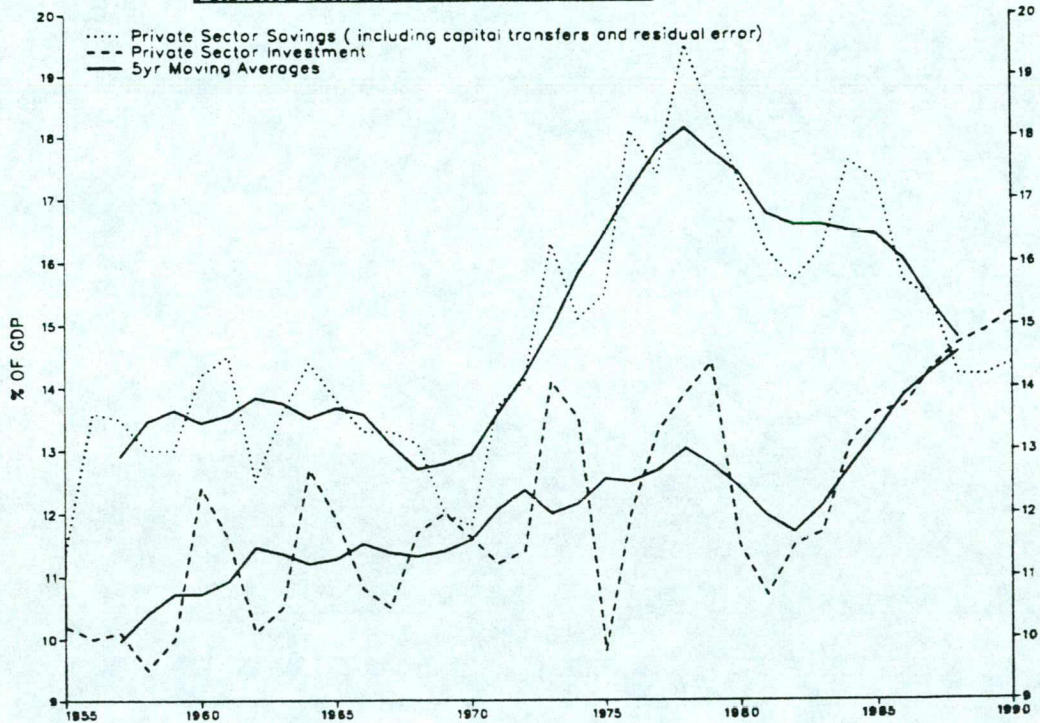
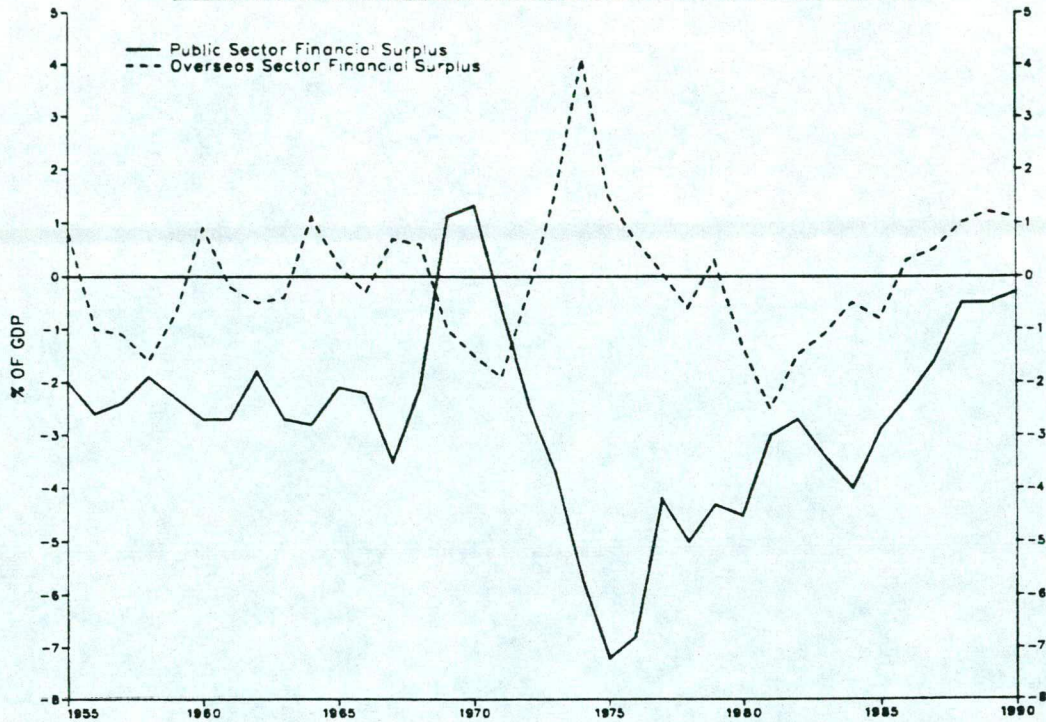


CHART 5
PUBLIC AND OVERSEAS SECTORS' FINANCIAL SURPLUSES



54. During the 1970s private sector savings rose as a ratio of GDP (Chart 4). We would associate this with the rise in inflation: individuals saved more of their current income to try and make good the erosion of existing savings by inflation. Since the late 1970s the figures suggest that the private sector savings ratio has been on a falling trend. As with the rise in the ratio, we would associate much of the fall with the decline of inflation. In addition there may have been some other temporary factors at work, which may continue to depress savings over the medium term, including pension contribution "holidays" and the effect of financial liberalisation. At the same time the ratio of private sector investment to GDP has been on a rising trend. Much of this is accounted for by the transfer of investment from the public sector (particularly housing and the privatisation programme).

TABLE 9: SAVINGS, INVESTMENT AND FINANCIAL SURPLUSES
(Per cent of GDP)

	Private sector saving ¹	Private sector investment	Net acquisition of financial assets		
			Private sector ¹	Public sector	Overseas sector ²
1980-83	16.4	11.4	5.0	-3.4	-1.6
1984-87	16.5	13.7	2.8	-2.7	-0.1
1985	17.3	13.6	3.7	-2.9	-0.8
1986	15.7	13.7	2.0	-2.3	0.3
1987 ³	15.4	14.3	1.1	-1.6	0.5
1988 ³	14.2	14.7	-0.5	-0.5	1.0
1989 ³	14.2	14.9	-0.7	-0.5	1.2
1990 ³	14.4	15.2	-0.8	-0.3	1.1

¹Including national accounts residual error

²Equals current account of balance of payments with sign reversed

³Figures are from the October forecast, broadly adjusted for the effects of the stock market fall.

55. We are projecting a further strong rise in investment reflecting the recent profitability and the higher rates of capacity utilisation observed over the past year (Table 9). Unusually the projections suggest that by next year private sector investment could exceed private sector savings - normally the private sector is in surplus. As a result, although there is only a small public sector financial deficit, it is more than offset by a current account deficit.

56. This situation can be characterised in one of two ways. One is to say that the flow of domestic savings is completely absorbed in financing domestic investment; therefore the public sector financial deficit is being met by overseas capital flows. Alternatively we can say that after financing the PSFD the flow of domestic savings is insufficient to finance the level of private sector investment - hence the need for a capital inflow.

57. It must be stressed that these figures are very approximate. We have subtracted the residual error from the identified flow of

private savings as we suspect most of it is reflected there. One alternative is that private sector investment is being understated although that does not change the basic story as it leaves the balance of private savings and investment unchanged. A second alternative is that the current account position is better than recorded. The only other period in the last thirty years when the public sector deficit was anything like as small as that now forecast was in the late 1960s when there was a marked improvement in the current account. If part of the residual error is attributable to the current account not only would the current account picture be improved; there would be a small excess of private savings over investment which would go to finance the PSFD.

58. If the projections are correct and the residual error is attributable to private sector savings one approach is to aim for a yet smaller PSFD and an even bigger negative PSBR to leave more finance available for the private sector. The alternative approach is to view the low savings ratio as a temporary phenomenon and to be content to finance the investment by an inflow of capital, with a compensating current account deficit. In the circumstances, with a free flow of world financial capital and improved rates of return in the UK, this second approach has much to commend it. There should be no shortage of willing lenders to finance profitable private sector investment. In the long term, if this course is pursued, the build-up of interest, profits and dividends payable overseas will put an increasing strain on the economy.

59. Bringing these factors together (and recognising the uncertainties of the data) suggests that the projected flow of funds is sustainable and that the projected stance of fiscal policy should not put great strains upon the economy.

60. The third factor mentioned in the Lombard speech was the scope for absorbing possible fiscal shocks. This was obviously important for the coal strike and the sudden reduction of oil prices. Recently the pattern of tax receipts has introduced a further degree of uncertainty. Tax revenues have been very buoyant but we are unsure how far this will continue. If the higher tax revenues are permanent there is clearly scope for a further reduction of tax

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rates. If they are temporary - for example because of cyclical factors, the pattern of profitability and the profile of the change in the corporation tax regime - it would be prudent to allow public sector borrowing to decline further in the meantime. Given the very rapid growth of output this year there must be some risk that the strength of tax receipts is cyclical; on the other hand the underlying buoyancy has been evident for some time now and may reflect the gearing of tax receipts in response to the faster underlying growth rate.

61. The general conclusion we reach is that the projections of public finances - with their substantial fiscal adjustments in place - are sustainable and meet with the objectives set out. Even so there is not much room to spare: the declining debt/income ratio has to be set against the pattern of privatisation receipts, North Sea taxes and public pension liabilities; the low savings ratio combined with the strength of private sector investment means that any public sector deficit may have to be financed by privatisation proceeds and overseas capital flows; and although the general buoyancy of tax revenues looks reasonably secure, they must be subject to risk given the speed and unexpectedness of recent increases.

POLICY BACKGROUND TO THE 1988 BUDGET

ANNEX A

MEDIUM TERM ECONOMIC DEVELOPMENTS

MPI DIVISION
December 1987

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MEDIUM TERM ECONOMIC DEVELOPMENTS**Introduction**

1. This paper describes medium term economic developments since the 1950s, and includes future projections to 1990. The projections are based on the Treasury's October internal forecast which has been adjusted for the effects of the recent fall in equity prices. Since there is still a great deal of uncertainty about the likely effects of the fall in world stock markets, the projections are rather more uncertain than usual and should not be regarded as having the same status as regular Treasury forecasts.

2. Most tables show the average values of the economic variables over ranges of years. In general the ranges have been chosen in order that comparisons of period averages are not affected by the cycle in economic activity. Growth rates, for example, are calculated between cyclical peaks. However this is not true for the last three periods shown in each table and the numbers should be interpreted accordingly. In particular the period 1983 to 1987 is part of an upswing in economic activity and may not represent a sustainable level of economic performance.

3. Section A summarises the main points of interest. Section B discusses developments in the world economy. Section C considers the behaviour of productivity, productive potential and costs of production. Section D looks at output, inflation and the policy stance. Section E considers the balance of payments and section F examines the structural balance of the economy.

A. Summary

4. The similarity of recent economic performance in the UK to that of the 1950s and 1960s is the most striking feature of the data set out in this paper. However, the similarities are more marked for certain aspects of performance than for others.

5. In making comparisons with earlier performance, it is useful to focus on two major themes. These correspond to the two main objectives of government policy - low growth of money GDP combined with a satisfactory price/output split, and the evolution of the structure of the economy.

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6. Starting with output and inflation, performance since 1983 has been slightly better than over the period 1955 to 1973 (table 8); output has recently been growing about $\frac{1}{2}$ a percentage point faster than in the earlier period and inflation is nearly $\frac{1}{2}$ a percentage point lower. But bearing in mind that the period since 1983 is part of a cyclical upswing, the current rate of sustainable economic growth is likely to be nearer to the average rate observed in the pre-1973 period. It is interesting to note that the improvement in UK performance has not been matched by other major developed countries; output growth in these countries has recently been about 2 percentage points lower than in the period 1955 to 1973 (Table 1).

7. Recent behaviour of output and inflation must be seen in the context of developments on the supply side and the stance of macroeconomic policy. Productivity growth in manufacturing has recently been higher than in the 1950s and 1960s, but in the rest of the economy it has been lower (Table 4). Total productivity growth in the non-North Sea economy is now about the same as it was in the period 1955 to 1964, although still a little lower than between 1964 and 1973. A slightly faster rate of growth of the labour supply in recent years means that the growth of productive potential is now similar to what it was before 1973 (Table 3).

8. The policy position is now, however, noticeably different from the 1950s and 1960s. On the monetary side, real and nominal interest rates and differentials with world rates are higher (Tables 10 to 12), indicating a tightening of policy since the earlier period. On the fiscal side, the PSBR as a proportion of GDP has declined significantly since the period 1955 to 1973 (after rising dramatically in the intervening years) but the difference can be accounted for by privatisation proceeds (Table 14). However, a noticeable tightening of the stance of fiscal policy, on all measures of the deficit, is projected for the future.

9. The UK experience since 1955 is consistent with the view that medium term output growth is determined more by supply side performance than by the general stance of policy.

10. Turning to the structural balance of the economy (section F of the paper), there is less evidence here of a full return to the patterns of the 1950s and 1960s. Profitability (Table 21) may still be lower, and the share of investment in GDP (Table 25) is lower than it was in the mid-1960s although private investment alone is higher. There are signs of recent improvements in both profitability and investment. The current account (Table 18) has declined in the last few years and

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the projections suggest a substantial deficit in the next few years; this compares with an experience of small surpluses in the 1950s and 1960s.

B. The World Outlook

11. All measures of world activity and trade indicate a significant improvement in world performance over the last four years compared with the period since 1973. However output growth was still significantly lower than in the period 1955 to 1973 and the growth of world trade was even further below the pre-1973 average. The poor trade performance relative to output growth reflects the continuing debt problems of many developing countries and the absence of a significant effort to dismantle trade barriers in developed countries.

Table 1 World Activity

Average Annual Percentage Changes

	OECD Industrial Production	Major Seven Countries GNP		(annual growth)	Developed Countries' exports of manufactures, weighted by UK markets
		Current Prices	Constant Prices		
1955-64	5.9*	8.5	5.2	3.3	7.1
1964-68	5.9	9.2	5.8	3.4	10.4
1968-73	6.0	10.9	4.7	6.2	8.7
1973-79	2.3	11.6	3.3	4.3	6.1
1979-83	-0.3	9.0	1.3	7.7	1.7
1983-87	3.5	7.0	3.3	3.7	4.0

1987-90	3.5	5.5	2.3	3.2	3.4

*1960-64

12. After the recent falls in stockmarkets, our views on future developments are subject to greater uncertainty than usual. Nonetheless, on balance it seems likely that developments in the world economy over the next three years will be more favourable for the UK than they were in the period 1979-87 as a whole, although not as favourable as in the last four years. The major uncertainty concerns the responses of financial markets and the US authorities to the US current account deficit.

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13. The history and outlook for world inflation are set out in Table 2. Consumer price inflation in the major seven countries has fallen sharply in recent years and is now below the average of the period 1955 to 1973.

Table 2 Consumer and Commodity Prices. Average Annual percentage changes

	Major Seven Countries Consumer Prices	Industrial Materials Prices Currency Basket Terms	World Oil Price
1955-64	2.5	na	-4.1
1964-68	3.3	-0.9	-0.5
1968-73	6.8	8.2	11.7
1973-79	8.4	7.0	35.8
1979-83	8.4	2.1	17.5
1983-87	3.3	-4.6	-16.3

1987-90	2.9	3.3	0

C. Productivity and Productive Potential

14. A useful starting point for a discussion of medium term trends in output growth is provided by a history of the economy's productive potential; it is likely that the growth of actual output over a number of years will be determined mainly by developments on the supply side. Table 3 sets out the various contributions to the growth of productive potential.

Table 3 Productive Potential Growth

Average Annual Percentage Changes

	Labour Supply	Trend Productivity per head	Non- North Sea Productive Potential	North Sea Contribution	Productive Potential
1955-64	0.4	2.2*	2.6	-	2.6
1964-73	0.1	2.7*	2.8	-	2.8
1973-79	0.6	0.8	1.3	0.6	1.9
1979-83	0.0	1.7	1.6	0.5	2.1
1983-87	1.0	2.2	3.2	-0.1	3.1

1987-90	0.6	2.3	2.9	-0.5	2.4

* actual, not trend.

Handwritten notes:
 If there has been a drop in productivity, then the supply side is more important, then the growth of productivity.
 2 1/2%
 2 1/2%
 55-77

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15. The growth of trend productivity has risen significantly in the last four years and is now close to the average rate observed in the period 1955 to 1973. The growth of productive potential has shown a rather larger rise in the recent period, but this reflects an upsurge in the growth of the labour supply following the sharp drop in participation rates which occurred during the 1980-81 recession. We do not expect the labour supply to continue to grow at the rate observed in recent years. In the next few years, productive potential is expected to grow at a slightly slower rate than it did in the period 1955-73. However, if one excludes the projected negative contribution from the North Sea sector as oil production falls, the growth of non-North Sea productive potential is expected to be slightly higher than in the pre-1973 period.

16. Table 4 shows the sectoral contributions to productivity growth in the onshore economy. The main features here are a marked improvement in the growth of productivity in manufacturing since the pre-1973 period and a small deterioration in non-manufacturing.

Table 4 Productivity Growth by Sector **Average Annual Percentage change**

	Manufacturing	Non-Manufacturing	Public Non- Trading	Total (Non North Sea)
1955-64	2.7	2.7	-0.6	2.2
1964-73	3.8	2.9	-0.9	2.7
1973-79	0.7	0.6	0.2	0.6
1979-83	3.6	0.8	0.4	1.4
1983-87	4.7	1.9	0.3	2.3

1987-90	4.7	1.8	0.1	2.3

17. The projected rates of growth of the labour supply and productivity imply that non-North Sea productive potential would be growing at nearly 3 per cent over the next four years. Declining North Sea output is expected to reduce the growth of productive potential by $\frac{1}{2}$ per cent per annum to nearly $2\frac{1}{2}$ per cent. Actual output growth in the medium term is expected to be about $\frac{1}{4}$ per cent higher than that of productive potential. This implies a small fall in unemployment over the medium term.

Table 5 Employment and Unemployment

	Estimated Labour Supply	Total Employment	<u>Unemployment (excluding school leavers)</u>	
			000s	(%)
		millions		
1955	25.2	24.3	222	0.9
1964	26.0	25.0	366	1.4
1973	26.2	25.0	545	2.1
1979	27.1	25.4	1141	4.3
1983	27.1	23.7	2866	10.8
1987	28.1	24.9	2905	10.4

1990	28.6	25.6	2647	9.4

18. Estimates of productive potential are used to help determine the medium term output path which might plausibly be consistent with a given inflation path. In the absence of adjustment in the labour or goods markets, or any favourable developments in commodity prices, declining inflation is likely to require that output grows less rapidly than productive potential. But output growth at or slightly above that of productive potential is consistent with declining inflation if it is assumed that some adjustment takes place.

19. The history and outlook for labour costs, the major component of the rate of inflation, are set out in table 6. The contribution of earnings growth and productivity are shown separately. The difference between the growth of total labour costs per employee and earnings is accounted for by national insurance and other employers' contributions.

Table 6 Labour costs (whole economy)

Average Annual Percentage Change

	Average Earnings	Total labour costs per employee	Real Earnings	Real labour costs	Productivity	Unit labour costs	Real unit labour costs
1955-64	5.9	5.9	2.6	2.6	2.2	3.5	0.2
1964-73	9.2	9.4	2.7	3.0	2.7	6.6	0.3
1973-79	16.6	17.9	0.4	1.5	0.4	17.5	1.1
1979-83	12.3	12.3	1.2	1.2	1.5	10.8	-0.3
1983-87	7.3	6.4	2.7	1.8	2.3	4.0	-0.5

1987-90	7.4	7.0	3.0	2.6	2.0	4.9	0.5

20. The growth of unit labour costs has fallen substantially since the 1970s and if recent trends are continued will grow at a similar rate to the average rate over the period 1955 to 1973. In real terms, unit labour costs have fallen slightly on average since 1979. Lower growth of average earnings and higher growth of onshore productivity have contributed to the fall in unit labour costs and are expected to continue at similar rates in the future. Unit labour costs are expected to grow rather faster than in recent years, however, both because of the abolition of the national insurance surcharge in 1984 which reduced growth in 1983-87, and because of the decline of North Sea oil output. Pension contribution 'holidays' have also made a significant contribution to the reduction in labour costs in recent years.

21. The behaviour of total unit costs has followed broadly the same pattern as unit labour cost. The recent fall in commodity prices has meant that the growth of total unit costs has fallen by rather more than that of unit labour costs.

D. Money GDP and the Policy Stance

22. Tables 7 and 8 describe the history and outlook for output, inflation and money GDP. Inflation has declined substantially since the early 1980s and further progress is expected in future. The average rate since 1983 has been below that of the late 1960s, although not as low as in the 1950s. In the past the GDP deflator has tended to grow slightly faster than the RPI; this reflects in part the tendency for the measured deflator for government consumption to grow faster than consumer prices. Turning to future projections, the producer price index shows a relatively large decline in the next few years for a number of reasons: much of the temporary rise in inflation in 1988 reflects the assumed

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revalorisation of specific duties which does not affect producer prices; the rise in the exchange rate compared with the recent period contributes to lower inflation in future especially as measured by the producer price index but not as measured by the GDP deflator; and unlike the GDP deflator, the producer price index is not directly affected by higher growth of public sector pay expected in the next few years.

Table 7 Inflation IndicatorsAverage Annual Percentage Changes

	GDP (MP) Deflator*	Producer Price (Output) Index	Retail Price Index	Consumers' Expenditure Deflator
1955-64	3.3	2.1	2.9	2.8
1964-73	6.3	5.0	5.9	5.7
1973-79	16.1 (16.2)	16.4	15.7	15.6
1979-83	11.0 (10.8)	8.8	10.8	10.2
1983-87	4.5 (5.2)	5.2	4.6	4.1

1987-90	4.3 (4.2)	2.9	3.5	3.5

* Non-oil GDP deflator in brackets

Table 8 Output, Inflation and Money GDP Growth.Average Annual
Percentage Change

	Output (Compromise GDP)*	GDP (MP) Deflator	Money GDP
1955-64	2.9 (2.9)	3.3	6.2
1964-73	3.0 (3.0)	6.3	9.1
1973-79	1.4 (0.8)	16.1	17.8
1979-83	0.4 (-0.1)	11.0	11.2
1983-87	3.4 (3.5)	4.5	8.1

1987-90	2.6 (3.1)	4.3	7.1

* Growth of non-North Sea output in brackets

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23. In terms of output growth, it is also the case that performance has recently returned to levels comparable with the 1950s and 1960s. A striking feature of table 8 is that relatively high output growth has been associated with relatively low inflation and vice versa. Thus economic history lends some support to the view that low inflation is conducive to high output growth.

24. The combination of monetary and fiscal conditions which underlies the above paths for output and inflation is set out in tables 9 to 15.

Table 9 Monetary Aggregates and their Velocity Average annual percentage change

	<u>Velocity relative to GDP</u>			
	<u>MO</u>	<u>M3</u>	<u>MO</u>	<u>M3</u>
1955-64	3.7	3.2	2.5	3.4
1964-73	5.8	10.4	3.1	-0.7
1973-79	12.7	9.8	4.5	7.7
1979-83	5.7	16.3	5.2	-4.3
1983-87	4.8	14.9	3.1	-5.8

1987-90	4.0	13.7	3.0	-5.8

25. The growth of MO has fallen steadily in recent years and is projected to be near the top of its illustrative MTFs range (1-5 in 1988-89 and 1989-90 and 0-4 in 1990-91) over the next three years. This reflects higher money GDP growth relative to the MO ranges; the velocity of MO is expected to rise at the same rate over the next few years as it has done in the last four years. This rate of increase is a little lower than that which occurred in the 1970s and early 1980s reflecting the fall in nominal interest rates over the later period compared with the rise in the earlier period.

26. M3 (formerly £M3) has recently grown considerably faster than money GDP and this trend is projected forward. The declining trend in velocity, which is expected to reach its lowest recorded level by 1990, has been apparent since 1979 and reflects a number of factors. High real interest rates have added to the attractiveness of financial assets in general, and the end of overfunding in 1985 has also contributed. But most importantly, increasing competition in financial markets has led to rapid growth in private sector liquidity and borrowing. As these trends seem set to continue, the increased difficulties in interpreting changes in

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M3 as a result of widespread changes in financial practices resulted this year in the formal target being dropped.

27. In the last four years short term real and nominal interest rates have been high both by historical standards and in relation to rates in the other major developed countries. The differential is assumed to fall somewhat in future years reflecting increased international confidence in sterling.

Table 10 Real* Short-term Interest Rates

	per cent					
	1956-64	1965-73	1974-79	1980-83	1984-87	1988-90
United Kingdom	1.9	2.1	-4.5	3.0	6.7	5½
Major 6	na	1.6	-0.5	4.0	4.6	3½

*3 month rates less annual change in consumers' expenditure deflators.

Table 11 Short Rates in the UK and Other G7 Countries

	Per cent					
	1956-64	1965-73	1974-79	1980-83	1984-87	1988-90
United Kingdom	4.7	7.7	11.1	13.2	10.7	9.0
3 Month Eurodollar	3.7*	7.0	8.7	13.4	8.2	7.7
Trade-Weighted Overseas Short Rate	na	6.7	7.0	11.8	7.8	6.5

* 1957-64

Table 12 Long Rates in the UK and US

	Per cent					
	1956-64	1965-73	1974-79	1980-83	1984-87	1988-90
British government long-dated securities (20 years)	5.6	8.2	13.6	13.1	10.1	9.0
US long-dated government securities	4.0	6.5	8.7	13.0	10.6	10.5

28. The nominal and real exchange rates have fallen considerably since the early 1980s when sterling was unusually high both because it contained an oil premium and because of the high interest rates which were required to achieve a significant reduction in the rate of inflation. The real exchange rate is now near to the level more typical of the 1960s and 1970s.

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Table 13 The Exchange Rate

	Effective Rate Index		Sterling/Dollar Rate
	Actual 1975=100	Real* 1980=100	
1956-1964	144.2	na	2.80
1965-1973	132.1	80.1	2.56
1974-1979	90.7	75.0	2.03
1980-1983	91.3	96.0	1.91
1984-1987	75.6	82.1	1.43

1988-1990	73.5	83.1	1.77
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*Actual exchange rate multiplied by relative GDP deflators in the UK and Major 6

29. Table 14 shows that the average PSBR ratio since 1984/85 has been substantially below the average levels of the 1950s and 1960s. With privatisation proceeds worth about 1 per cent of GDP over this period, the PSFD and the PSBR excluding privatisation proceeds have been at similar levels in relation to GDP to what they were in the 1950s and 1960s.

But as pointed 1987/88 - 1990-91

Table 14 Indicators of Fiscal Stance

	Per cent of Money GDP			
	PSBR	Memo: North Sea Tax revenues	PSBR excluding Privatisation Proceeds	Public Sector Financial Deficit
1956/57-1964/65	2.5	-	2.5	2.4
1965/66-1973/74	2.5	-	2.5	1.8
1974/75-1979/80	6.4	0.3	6.5	5.5
1980/81-1983/84	3.7	2.5	4.0	3.4
1984/85-1987/88	1.3	2.3	2.3	2.4

1988/89-1990/91	-1.2	0.9	0.1	0.3
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30. North Sea tax revenues are shown as a memo item in Table 19. One approach to setting the PSBR suggests that it might be appropriate to allow the PSBR to fall to the extent of the 'transitory' component in North Sea revenues; on this approach the current taxpayers should consume only the permanent income from the North Sea, allowing future generations to share equally in the benefits. Our most recent

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estimates indicate that the permanent income component of the revenues in the period 1980-81 to 1983-84 was worth about 0.6 per cent of GDP on average. The figures above show that between the periods 1974-75 to 1979-80 and 1980-81 to 1983-84 when the major increase in oil revenues occurred, all three measures of fiscal stance fell by at least as much as the transitory part of the rise in oil revenues.

31. The decline in public sector borrowing as a proportion of GDP has been combined with a steady reduction in the ratio of general government expenditure to GDP since the early 1980s. The ratio is now similar to the levels achieved in the late 1960s but not as low as in the period 1955-56 to 1964-65. The non-North Sea tax burden rose steadily from the 1950s to the early 1980s since when it has not changed very much. Table 15 also shows net public sector debt (the stock analogue of the PSBR) as a proportion of GDP. This ratio has fallen dramatically since the 1950s as the growth of money GDP has exceeded additions to the stock of debt.

Table 15 Other Fiscal Indicators

Per cent of Money GDP

	GGE*	Non-North Sea Tax Burden (per cent non-North Sea GDP)	Net Public Sector Debt	PSFD	memo: GGFD*** Major 6 UK	
1956/57-1964/65	34.8(4.0)	28.9	134.6	2.4	na	na
1965/66-1973/74	40.2(3.8)	33.7	83.9	1.8	0.5	-0.1
1974/75-1979/80	45.1(4.3)	35.2	54.6	5.5	2.5	4.0
1980/81-1983/84	46.1(4.9)	37.1	46.6	3.4	3.4	2.9
1984/85-1987/88	43.3(4.6)	37.6	43.3	2.4	3.1	2.8

1988/89-1990/91	39.9(3.4)	38.0(39.4)**	32.4	0.3	2.7	0.8

* Debt interest component in brackets

** Before fiscal adjustment in brackets

*** Calendar years

E. The Balance of Payments

32. Tables 16 and 17 show the recent history and prospects for exports and imports respectively, together with their major determinants. On the exports side, both price and cost competitiveness have improved recently, although the losses of the early 1980s have not been completely offset. World output and trade have also

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shown improvements on the period 1973-1983. These developments have been reflected in a significant increase in the rate of growth of non-oil exports in recent years. A moderation of the recent growth rate is projected for the future as price competitiveness improves at a slower rate than in recent years and the growth of world trade declines slightly.

Table 16 Export Volumes and Major Determinants

	<u>Average Annual Percentage Change</u>		<u>1980=100</u>	
	Non-oil Exports	World Trade in Manufacturers	Relative Export Prices	Relative Unit Costs
1955-64	2.7*	7.1	na	na
1964-73	6.0*	9.7	84.0	76.3
1973-79	3.6	6.1	81.8	67.7
1979-83	-0.4	1.7	95.2	96.4
1983-87	6.1	4.0	89.0	79.9

1987-90	3.5	3.4	90.2	76.2

* Includes oil trade

33. On the imports side, an important influence is the growth of domestic demand. This has increased significantly over the last four years and although import price competitiveness has shown some improvement on the performance of the early 1980s, the import penetration ratio in manufacturing (the proportion of imports to total manufacturing output) has continued to rise and the growth of total non-oil imports has shown a substantial rise in the last four years. However, as with export volumes, the growth of import volumes is expected to fall somewhat from its current high rate.

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Table 17 Import Volumes and Major Determinants

	<u>Average annual percentage change</u>		<u>1980=100</u>		
	Non-oil Imports	Total Domestic Demand	Domestic Prices relative to Import Prices	Relative unit Costs	Import Penetration in Manufacturing (ratio)
1955-64	4.3*	3.1	na	na	na
1964-73	6.4*	3.0	88.4	136.8	13.8
1973-79	4.9	1.0	82.2	148.4	22.3
1979-83	3.3	0.5	100.2	101.8	30.6
1983-87	6.9	3.4	97.2	118.2	36.1

1987-90	4.0	3.2	101.6	119.3	38.9

*Includes oil trade

34. There are two additional important influences on the current account. First the rise and fall in the value of net oil exports is obviously a major influence. But, secondly, the UK's net assets overseas which built up strongly during the years of peak oil production have recently generated strong growth in net receipts of interest, profits and dividends and will continue to do so for some time. Other important features to note are the projected continuation of the trend decline in net manufacturing exports and improvement in the balance on other goods and services.

Table 18 The Current AccountPercent of GDP

	Net Oil Exports	Net Manufactures Exports	Other Goods and Services (Net)	Interest Profits & Dividends	Transfers	Current Balance
1955-64	-1.3	7.1	-6.3	1.1	-0.3	0.3
1965-73	-1.4	4.3	-3.7	1.1	-0.5	0.2
1974-79	-2.3	3.0	-1.8	0.9	-0.8	-1.0
1980-83	1.2	1.1	-0.4	0.4	-0.7	1.6
1983-87	1.6	-1.3	-0.6	1.2	-0.7	0.1

1988-90	0.5	-2.3	-0.1	1.5	-0.7	-1.1

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35. The implications for the stock of net overseas assets of the flows of assets which are the counterpart of the current account are shown in table 19 below. There were large rises between 1979 and 1983 (reflecting current account surpluses) and between 1983 and 1986 (mainly reflecting revaluations). The accumulated value of UK net assets overseas is expected to fall by over £20 billion between 1986 and 1990. The main contribution is expected to come from the cumulated current account deficits but there is also expected to be a reduction in the value of existing assets. Without the recent large fall in world stock markets, the extent of revaluations would have been expected to more than offset the effects of current account deficits on the value of the UK's net overseas assets.

Table 19 Net Overseas Assets

UK Net Overseas Assets, end year

	£ billion	% of GDP
1957	0.1	0.4
1964	1.6	5.0
1973	5.4	7.2
1979	12.2	6.2
1983	52.7	17.5
1986	114.4	30.2

Projected Change Between 1986 and 1990

Due to:

Current Account Deficit	-17.9
Revaluations	-3.2
Balancing item	1.2
TOTAL	-19.9

<u>UK Net Overseas Assets at end 1990</u>	94.5	18.7
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F. The Structure of the Economy

36. In this section four aspects of the structural balance of the economy are examined:

- (a) the path for factor income shares - the split of income between earnings, profits and rent;
- (b) the path for sectoral acquisitions of financial claims on other sectors and the level and composition of national wealth;

(c) the expected pattern of expenditure - the share of GDP accounted for by consumption, investment and net trade;

(d) the implications for relative sectoral sizes: manufacturing, non-manufacturing and the public sector.

Factor Income Shares

37. Table 20 shows the factor income shares which have prevailed at particular times in the past and gives a projection for 1990.

Table 20 Factor Income Shares*

Per cent of GDP(non-oil GDP)

	Income from Employment	Income from Self Employment	Net Company Profits		Public Corporation Surpluses**	Rent
			Oil	Non-Oil		
1955	67.0(67.0)	9.6(9.6)	-	16.6(16.5)	2.4(2.4)	4.4(4.4)
1964	66.9(66.9)	9.3(9.3)	-	14.8(14.8)	3.3(3.3)	5.7(5.7)
1973	66.8(66.8)	10.8(10.8)	0.1	12.3 12.2(12.2)	3.0(3.0)	7.2(7.2)
1979	67.3(69.5)	8.8(9.1)	3.1	13.0 9.9(10.2)	3.0(2.9)	8.0(8.2)
1983	65.1(69.3)	9.1(9.7)	6.0	14.0 8.0(8.5)	3.7(3.9)	8.1(8.6)
1987	63.9(65.7)	10.6(10.9)	2.6	15.9 13.3(13.6)	2.1(2.1)	7.5(7.7)

1990	65.8(67.0)	10.9(11.1)	1.9	14.3 12.4(12.7)	2.2(2.2)	6.9(7.0)

* shares of non-oil GDP in brackets.

** includes trading surpluses of general government enterprises.

38. The share of employment income was on a rising trend between the 1950s and the mid 1970s reflecting rises in both real wages and employment. It then fell fairly steadily between 1975 and 1985 (except for some small rises in 1979 and 1980) to below the levels typical of the 1950s and 1960s. Excluding the North Sea sector, the employment share is a little below the 1955 level. The rise and subsequent fall of the employment share can be regarded as a result of the increase and decrease of the relative success of employees in capturing the gains from rising productivity.

39. As one would expect the share of non-oil profits tends to mirror that of employment incomes; a sharply falling share during the 1960s and 1970s was followed by a rising share in subsequent years. However, the scale of the changes is rather larger.

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40. Another way to look at the trends in profits is to examine profitability - profits per unit of capital employed. However, there is a strong belief that as a result of the rapid increase in oil prices in 1979-80, capital (especially in manufacturing) was subject to much faster scrapping in the early 1980s than the official CSO data show. To the extent that this is the case, recorded profitability will understate true profitability from that period onwards.

Table 21 Profitability: Pre-tax Rates of Return

per cent

	All Industrial and Commercial Companies	Non-North Sea Industrial and Commercial Companies
1955	14.1*	14.1*
1960	13.1	13.1
1964	12.0	12.0
1973	8.9	9.0
1979	7.4	5.7
1983	9.1	4.8
1987	11.2	10.0

1990	9.7	9.1

* Estimated from rate of return on all companies including financial companies.

41. Table 21 tells a similar story to that revealed by table 20 so far as non-oil profits are concerned. Since 1979 there has been a marked (trend) increase in profitability from the low levels of the mid-1970s. According to the official data, profitability is still low by the standards of the 1950s and 1960s. However, internal estimates of the true value of the capital stock imply that actual profitability might be around 15 to 20 per cent higher than the above table suggests for the period since 1979. On this basis profitability is now at about the same level as in the 1960s.

Wealth and Sectoral Acquisitions of Assets

42. Another useful way of looking at the changing structure of the economy is to consider the sectoral financial surpluses and deficits. This is done in table 22.

Table 22 Financial Surpluses and Deficits by SectorPercentages of GDP

	Public Sector	Private Sector	Overseas Sector	Residual Error
1948-54	-0.6	1.5	-0.9	0
1955-64	-2.4	2.1	-0.3	0.6
1965-73	-1.6	2.1	-0.2	-0.3
1974-79	-5.5	3.4	1.0	1.1
1980-83	-3.4	5.6	-1.6	-0.6
1984-87	-2.7	4.7	-0.1	-1.9

1988-90	-0.4	2.3	1.1	-2.9

43. In principle, the sectoral surpluses/deficits should sum to zero since one sector's financial assets are another sector's liabilities. But in practice, errors and omissions in the national accounts mean that this is not so. Since 1982 there has tended to be a large excess of recorded income over expenditure and the even higher projection for the next three years reflects the errors observed in recent data. It is possible that at least some of the residual error should be allocated to private sector expenditure and income; the very latest data revisions (not incorporated in table 22) indicate some upward revision to personal sector expenditure for recent years and a downward revision to personal income.

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 Personal
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44. Table 22A gives a breakdown of the private sector's financial surplus both in terms of savings and investment, and also in terms of the personal and company sectors.

Table 22A Private Sector Financial SurplusPercent of GDP

	Private Sector Savings	Private Sector Investment	Private Sector Financial Surplus (= saving minus investment)	of which:	
				Personal Sector	Company Sector
1955-64	12.8	10.7	2.1	0.8	1.3
1965-73	13.7	11.7	2.1	1.9	0.2
1974-79	16.2	12.8	3.4	3.9	-0.5
1980-83	17.0	11.4	5.6	4.4	1.2
1984-87	18.4	13.7	4.7	2.0	2.7

1988-90	17.2	14.9	2.3	0.7	1.6

*is complete with
Total 0 on
next page*

45. The economy's stock of tangible assets, shown as a ratio to GDP in Table 23 below, consists of the cumulated value of investment, adjusted for the effects of revaluations. The economy's total wealth, also shown, is the sum of net tangible assets and net overseas assets. Table 24 gives further details of savings and wealth in the personal sector.

Table 23 Wealth Income Ratio

Ratio to GDP

	Total Net Wealth*	Net Tangible Assets	Net Overseas Assets
1957	3.00	3.00	0
1964	3.35	3.31	0.04
1973	4.94	4.87	0.07
1979	4.79	4.73	0.06
1983	4.53	4.36	0.17
1986	4.78	4.48	0.30

* Sum of second and third columns

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Table 24 Personal Sector Savings and Wealth/Income Ratios

	Savings Ratio	Net Financial Wealth	Wealth/Income Ratios*
			Total Wealth**
1957	5.1	2.26	3.99
1964	9.0	2.28	4.18
1973	10.8	1.65	4.70
1979	12.9	1.22	3.72
1983	10.7	1.59	4.08
1987	9.1	2.00	4.82

1990	9.4	1.84	5.04

* Ratio of wealth to annual personal disposable income

** Net Financial wealth plus housing wealth plus value of stock of consumer durables. (Note stock of consumer durables not included in table 23)

46. The main points of interest arising from tables 22 to 24 are as follows:

(a) Since 1960, the personal sector has been a net saver and a source of funds for the rest of the economy. The period from 1971 to 1980 saw a sharp rise in its financial surplus as the personal sector attempted to restore the real value of its wealth which had been eroded by accelerating inflation. This higher rate of savings has been sufficiently marked to raise the wealth income ratio of the personal sector above the levels experienced in the 1950s and 1960s. As inflation has come down and the wealth/income ratio has risen, the savings ratio has fallen. At the same time, the proportion of personal wealth held in financial rather than physical assets has risen significantly.

(b) The company sector has traditionally had small surpluses or deficits; much of their capital formation has been from internally generated funds. Since 1983 however, companies have moved into a period of sustained financial surpluses as increased profitability has not been matched completely by higher rates of capital formation. This partly reflects the downward trend in stockbuilding (see Table 25). Over the next few years companies' surpluses are projected to fall along with falling profitability. For the private sector as a whole, the financial surplus has recently shown a marked decline, and this trend is expected to continue.

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(c) The decline in the public sector financial deficit between 1980-83 and 1984-87 was slightly smaller than the reduction in the private sector's surplus. While the deficit of the overseas sector has fallen significantly over the same period, the large change in the residual error makes the interpretation of these trends very difficult.

(d) After rising strongly in the period up to 1973, national wealth has since been fairly flat. Within the total, the share of net tangible assets has fallen and that of net overseas assets has risen. However, tangible assets still account for over 90 per cent of national wealth.

Expenditure shares

47. A third way to examine the structural behaviour of the economy is to consider the shares of GDP accounted for by the main expenditure categories.

Table 25 Percentage of Gross Domestic Expenditure accounted for by the Main Expenditure Categories

	Consumers' Expenditure	General Government Current Expenditure		Gross Domestic Fixed Capital Formation		Stock-building	Net Trade
		Central Government	Local Authorities	private	public		
1955-64	66.5	11.4	5.3	9.6	6.8	1.1	-0.5
1965-73	62.6	10.6	6.7	10.8	8.0	0.9	0.3
1974-79	60.6	12.3	8.2	12.1	7.2	0.7	-1.1
1980-83	60.3	13.3	8.2	12.0	4.6	-0.6	1.9
1984-87	61.7	13.1	8.2	13.6	3.6	0.1	0.3

1988-90	62.7	12.7	8.4	14.8	2.8	0.3	-1.9

48. The main points to note are as follows:

a. after remaining fairly flat as a proportion of total expenditure since the mid-1960s, total consumption has risen steadily since the late 1970s. Within total consumption there was a steady shift away from private to public consumption until the early 1980s when public consumption began to level off and private consumption grew more rapidly than GDP.

b. The share of total fixed investment was fairly flat at about 19 per cent of total expenditure from the mid-1960s until the the late 1970s after which it fell to around 17 per cent. The share is expected to rise a little over the next three years. Within the total there has been a marked shift between the public and private sectors. Private sector investment has risen by about four percentage points since 1955-64, with public sector investment falling by a similar amount.

c. The counterpart of the projected rises in the shares of consumption and investment compared with the early 1980s is a fall in the share of net trade.

Relative Sectoral Sizes

49. Another interesting aspect of the structure of the economy is the relative size of the public sector and of the manufacturing and non-manufacturing private sector. Table 26 below shows the relative shares of output which the various sectors have generated in the past and those projected for the future.

Table 26 Output Shares by Sector*

	Public Non- Trading	North Sea	Private and Public Trading Manufacturing	Per cent Other
1968	14.2	-	31.6	53.0
1973	13.9	0.1	31.6	53.1
1979	14.3	4.2	28.1	52.8
1983	14.4	5.9	24.7	54.3
1987	12.6	5.6	24.6	56.6

1990	11.9	4.5	24.9	58.2

* At constant 1980 prices

50. The output share of the public non-trading sector remained nearly constant in the period up to 1983. But since then, there has been a discernible fall. By convention, the output of this sector is largely taken to be the sum of its input costs. As the present government has taken steps to hold back the rise in public expenditure, public non-traded output has inevitably grown less rapidly than the rest of the economy although these figures will overestimate the reduction to the extent that productivity has increased in the public sector. This trend is projected to continue into the future.

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51. The output share of the North Sea reached a peak in 1984 and declined marginally in 1985 as production reached a plateau. As the North Sea share built up, it was manufacturing which suffered the counterpart loss of output share. This is not surprising; coupled with the increased competition from newly industrialised countries, the rise in the exchange rate associated with oil hit hardest at the traded goods sector - principally manufacturing. The share of the rest of the private and public trading sector has increased steadily since the 1960s.

52. Judged in terms of employment, rather than output, the projections have somewhat different implications for the relative sizes of sectors. As noted in section B earlier, productivity growth in manufacturing has been considerably greater than in non-manufacturing. Partly by virtue of the statistical convention for measuring its output, productivity growth in the public non-trading sector has been lower still. In broad terms, these relative speeds of productivity growth are expected to persist into the future. These trends ensure a faster downward trend in manufacturing's share of employment than of output, and a trend increase in the public sector's share of employment.

POLICY BACKGROUND TO THE 1988 BUDGET

ANNEX B

MONEY GDP PROSPECTS AND POLICY FRAMEWORK

MP1 DIVISION
December 1987

MONEY
GDP
PROSPECTS
AND
POLICY
FRAMEWORK
ANNEX B

MONEY GDP PROSPECTS AND POLICY FRAMEWORK

While movements in sterling have influenced authorities' decisions about interest rates since the start of the MTFs, the role of the exchange rate has been given increased prominence during the last year. Since the Louvre agreement in February 1987 UK interest rates have in effect been assigned primarily to the stabilisation of the sterling/deutschemark exchange rate; and the prospect may now be that sterling will continue to be held at around current levels against the deutschemark. The continued assignment of interest rates primarily to maintaining a given level of sterling would entail some changes to the framework of fiscal and monetary policy as compared with that set out in the 1987 MTFs and in earlier versions of the MTFs.

2. The early sections of this paper discuss the implication of this framework for the evolution of inflation and money GDP growth over the medium term. The paper discusses the mechanisms by which exchange rate policy is likely to affect UK inflation; and considers the prospects for medium term inflation and output growth implied by the October forecast, and some of the sensitivities around those projections.

3. The later sections of the paper discuss the policy framework in more detail and the implication that giving greater weight to exchange rate stability will have for the Government's ability to control money GDP. The assignment of interest rates to delivering a particular exchange rate is likely to reduce the Government's ability to deliver a particular path of money GDP in the short term, as compared with a situation where interest rates were chosen in the light of an assessment of a range of indicators (including the targeted monetary aggregate and the exchange rate). The exchange rate constraint means that the Government has less freedom to take account of other indicators which may sometimes contain relevant information about money GDP.

4. The Government's freedom to achieve a particular medium term path of money GDP will depend on the scale and frequency of exchange rate realignments. In the extreme case of a permanently

fixed sterling/deutschemark rate the Government might have to accept a money GDP path largely determined by events outside its control (eg German policy). With regular annual exchange rate realignments the short term exchange rate constraint would not place much restriction on the medium term money GDP path that the Government could choose. (However, if the Government's short term control over money GDP is reduced by the existence of an exchange rate target this could in itself possibly lead to greater annual revisions in the medium term GDP path).

Factors underlying medium term prospects for inflation

5. If policy is directed now more explicitly towards stabilising the exchange rate, the question arises whether that is likely to be more effective in delivering lower inflation. It will be if it makes the stance of policy either:

- i. tighter, or
- ii. more readily understood and so taken account of by the private sector, or
- iii. more credible.

6. A fixed exchange rate regime can obviously imply either a tighter or looser policy stance than a regime of money GDP and MO objectives/targets: it all depends on developments in other countries (eg Germany) and on how ambitious those objectives/targets are. A case can undoubtedly be made for arguing that holding sterling close to its present level against the deutschemark does represent a tighter policy stance than that implied by the targets in the 1987 MTFs. The 1987 MTFs money GDP projections were estimated at the time to imply a significant fall in sterling against the deutschemark, although the further evidence available over the last year of improved UK relative productivity performance may mean that a fixed exchange rate regime would be less tight than it seemed a year ago.

7. One potential advantage of a fixed exchange rate regime is that the private sector may be able to interpret the implications of such a policy better than it can assess what a particular MO or money GDP objective means. "Money GDP" is not a concept which is very familiar to non-economists, whereas firms (and their employees) that are involved in international trade are well aware of the implications of the level of the exchange rate for their pricing decisions and profits. Pay settlements may be slightly lower if the fixed exchange rate is perceived to be a firmer discipline than fixed money GDP or MO.

8. The credibility of policy set out in the MTFs is crucial: if the private sector acts on the basis that the Government will not do what it has announced, the cost of reducing inflation will be much greater. It is at least arguable that a fixed exchange rate policy will appear to leave the Government less opportunity for equivocation than policy which involves the assessment of monetary conditions in the light of a (several times changed) monetary target and a range of other indicators.

9. Fixing sterling to the deutschemark will clearly exercise a discipline over the prices that UK exporters and UK producers of tradeable goods for the home market will be able to charge. But how much of a constraint on UK domestic inflation will this represent?

10. The pressure of foreign prices on pricing of tradeable goods in the domestic market can be illustrated by the behaviour of UK producer output prices over the period of the appreciation of sterling in the late 1970s and 1980 and its subsequent fall. The rise and fall relative to other countries in UK producer prices over this period was much less than the relative change in unit labour costs; reflecting both competitive pressure on profit margins and the reduction of import costs that domestic producers experienced as sterling rose.

	Effective exchange rate 1975=100	Relative producer prices 1980=100	Relative unit labour costs 1980=100
1977	81.2	79	61.8
1978	81.5	81.7	65.9
1979	87.3	89.4	78.3
1980	96.1	100	100.0
1981	95.3	100.8	101.9
1982	90.7	97.7	95.5
1983	83.3	91	85.8

11. While these figures show the exchange rate exercising some discipline on prices, they also make clear that with the policies that were in operation in the late 1970s, the discipline was by no means absolute. Longer term experience does, however, suggest that maintenance of a fixed exchange rate leads to a high degree of inflation convergence. But this convergence is not necessarily complete, because the discipline provided by the exchange rate applies directly only to the tradeable sector of the economy.

12. One theory of the determination of inflation under fixed exchange rates (often referred to as the "Scandinavian" theory of inflation) suggests that countries with relatively high productivity in the tradeable goods sector will tend to experience relatively high inflation (for evidence on the 1960s, see Appendix 1). The argument is that relatively fast productivity growth in the tradeable goods sector permits relatively fast pay growth in that sector. This upward pressure on pay is transmitted to the rest of the economy (including the general government sector). Whole economy unit labour costs will rise faster in the country that is enjoying good productivity performance in the tradeable sector, unless the productivity performance of the non-tradeable sector relative to other countries is as good as that of the tradeable sector.

13. Currently the UK is experiencing faster growth of productivity in manufacturing than other major industrial countries; because the level of UK productivity is way below European (and particularly German) standards, there is scope for

relatively fast productivity growth in the UK for a considerable period. Since 1979 output per man has grown by about 2 per cent a year faster in UK manufacturing industry than in German manufacturing, and UK manufacturing productivity growth is expected to continue to exceed German productivity growth by around 2 per cent a year over the medium term.

14. This means that earnings in UK manufacturing could rise 2 per cent faster than German earnings without the fixed sterling/deutschemark rate putting any pressure on UK manufacturing profit margins. If there were to be corresponding differences between UK and German non-manufacturing earnings, but no difference in non-manufacturing productivity, UK inflation might eventually converge to a rate of inflation some 1½ per cent higher than the German inflation rate. If German inflation settles at around the 1 per cent rate currently forecast for the medium term, this would still allow room for a significant fall in UK inflation from its current levels. The speed of convergence to the rate of inflation warranted by German inflation is uncertain, and would be affected by such factors as demand conditions in the UK and the degree of credibility given by price and wage setters to the Government's announced policy intentions. There would be virtually no room for any depreciation of sterling against the deutschemark.

Medium term projections

15. Another way of assessing the medium term prospects for inflation is to look at the October forecast. This has been broadly updated to take account of the fall in the world stock markets that occurred after the October forecast had been completed. The projections allow for tax cuts around £4 billion in 1988, and around £2-2½ billion a year over the following two years. This is forecast to leave the PSBR excluding privatisation proceeds close to zero over the medium term. The real GDP, money GDP, GDP deflator and exchange rate projections in this forecast are given below (1987 MTFS numbers in brackets).

	<u>1987-88</u>	<u>1988-89</u>	<u>1989-90</u>	<u>1990-91</u>
Real GDP, per cent change on year earlier	4.1 (3)	2.8 (2½)	2.4 (2½)	2.4 (2½)
GDP deflator, per cent change on year earlier	4.6 (4½)	4.8 (4)	4.1 (3½)	3.6 (3)
Money GDP, per cent change on year earlier	9.0 (7½)	7.7 (6½)	6.7 (6)	6.1 (5½)
Sterling index (1975=100)	73.4	73.8	73.2	73.0
Sterling/deutschemark rate	2.97	2.91	2.83	2.75

16. These projections show sterling falling below 2.80 deutschemarks by 1990-91, the third of the four years that will be covered in the 1988 MTFs. Given the judgements made in the forecast, a higher sterling exchange rate than this would imply medium term GDP growth falling clearly below the 2½ per cent rate set out in the last MTFs (even though the forecasters have revised their view of potential output growth up a little since the last MTFs). A variant on the above projections, in which UK interest rates are raised so that sterling depreciates more gradually against the deutschemark, remaining within the 2.80-3 range over the whole period up to 1991-92, shows real GDP growth falling to below 2 per cent a year in 1989-90 and 1990-91. Money GDP growth in this variant falls below that in the 1987 MTFs.

17. Prospects could also be affected by changes in the foreign exchange markets' confidence in sterling, with improved confidence leading to lower interest rates and hence tending to raise real GDP growth. Recent months have demonstrated the problems that improving confidence can bring, making it difficult to avoid interest rate cuts that have not seemed entirely appropriate in the light of domestic conditions. To illustrate the possible orders of magnitude involved, a simulation of a 2 point cut in UK interest rates for 2 years due to improved confidence shows an average increase in real growth over those two years of some ¾ per cent, with little change in inflation.

18. The prospects for output and inflation would, of course vary with different outturns for the dollar/deutschemark rate:

- further substantial dollar depreciation against the deutschemark would increase the tightness of stance implied by holding the sterling/deutschemark rate constant, giving a faster decline in money GDP growth; and, for a while at least, weaker growth of output
- a sharp recovery in the dollar against the deutschemark would raise the German inflation rate and would imply an easier policy stance in the UK and could possibly remove all downward pressure on UK inflation.

*WAI Lippin
@ some stage
by MTF's p...!*

19. There are several other important judgements made by the forecasters that affect the output and inflation projections under particular settings of policy instruments. One important judgement is on the degree of labour market adjustment. In the past, MTF's projections have normally taken credit for a rather greater degree of labour market adjustment (ie lower growth in pay) than the forecasters have believed likely; unfortunately in recent years the forecasters' relative pessimism has tended to be justified by events. Other things being equal with a given sterling/deutschemark rate lower growth in pay will over the short to medium term reduce inflation and raise the rate of growth of real output.

20. Another important area of judgement - and one where the forecasters have tended to be over pessimistic in recent years - is UK trade performance. Better trade performance (a bigger share of world markets or lower import penetration for a given level of domestic demand) will tend to improve the current account and raise real growth; it might also tend to put upward pressure on UK inflation, particularly if there were any serious shortages of physical capacity or skilled labour in the economy.

21. A further important judgement in the forecast is on the private sector's likely rate of saving, given the forecast growth of incomes. The forecast implies a private sector financial

surplus that is very low by historical standards. While there are some special factors that help to explain this (in particular the scale of pension fund contribution "holidays"), these are subject to some uncertainty and the rate of saving by the private section could turn out higher than forecast, for given income growth. This would improve the current account, but reduce GDP growth (and might also reduce inflationary pressure).

The role of the exchange rate in previous versions of the MTF5

22. Successive versions of the MTF5 have made it clear that the Government interprets monetary conditions with the help of a range of indicators, including the exchange rate; and in practice most of the major interest rate changes in recent years have occurred at times of pressure on the exchange rate. Since 1982 the text of the MTF5 has said explicitly that the exchange rate is taken into account in decisions about setting interest rates. The references to the exchange rate in successive versions of the MTF5 are given below.

1981 MTF5. "Other indicators also suggest that financial conditions in 1980-81 were tight: the high exchange rate, high interest rates; the absence of any marked movement in the prices of houses or other assets."

1982 MTF5. Referred to the recent behaviour of the exchange rate in a section on "recent financial conditions". In the section on monetary policy: "Interpretation of monetary conditions will continue to take account of all the available evidence, including the behaviour of the exchange rate."

1983 MTF5. "Other financial indicators pointed to moderately restrictive monetary conditions. As in other industrial countries real short term interest rates remained high. For most of the year the exchange rate was strong." "The interpretation of monetary conditions will continue to take account of all the available evidence, including the exchange rate, structural changes in financial markets, saving behaviour, and the level and structure of interest rates."

1984 MTFS. "Broad and narrow money will have equal importance in the assessment of monetary conditions and interest rates. As in the past the authorities will take into account all the available evidence, including the exchange rate."

1985 MTFS. "Equal weight will be given to the performance of M0 and £M3, which continue to be interpreted in the light of other indicators of monetary conditions. Significant changes in the exchange rate are also important. It will be necessary to judge the appropriate combination of monetary growth and the exchange rate needed to keep financial policy in track: there is no mechanistic formula."

1986 MTFS. "In implementing policy and in making decisions about short term interest rates, the Government has to make a careful assessment of the behaviour of the monetary aggregates in relation to their targets, together with other relevant evidence, especially the exchange rate. There is no mechanical formula for taking the exchange rate into account in assessing monetary conditions; a balance must be struck between the exchange rate and domestic monetary growth consistent with the Government's aim for money GDP and inflation."

~~1987 MTFS.~~
23. The Louvre agreement was concluded just over three weeks before the 1987 Budget - by when the shape of the 1987 MTFS had been largely determined - so it affected the wording of the MTFS chapter rather than the substance of the 1987 MTFS. In addition to a paragraph which repeated quite closely what had been said about exchange rates in the 1986 MTFS, the 1987 MTFS included a paragraph which referred to the conclusion reached at the Louvre meeting that "a period of stability would be desirable". It then said that "the MTFS projections assume that there is no major change in either the sterling exchange rate index or the sterling/dollar exchange rate from year to year".

24. The increased weight given to exchange rate stability has involved a change to the policy framework, as UK interest rates

now have to be assigned primarily to delivering a particular exchange rate. There can be a conflict between short-term exchange rate objectives and maintaining monetary conditions necessary to deliver the desired growth of money GDP, such as has in fact occurred in 1987. Strong upward pressure on the exchange rate has removed any scope for raising interest rates to prevent the overshooting of money GDP that has been forecast since the summer. The policy dilemma will become more obvious in public if MO starts overshooting its target range, as it is forecast to do at the beginning of 1988.

The role of monetary and fiscal policies

25. The aims of policy are to bring money GDP down and to contribute to a sensible balance in the economy. The instruments available to the authorities to do this are:

- interest rates have to be directed in the first instance to maintaining the exchange rate within its agreed range. This does not mean that that interest rates can never be directed to influencing the growth of money GDP: whether they are free for such use depends on where the exchange rate stands within its target range. Moreover in many (but not all) cases where inappropriately loose or tight monetary conditions call for policy response, this will be reflected in pressure on the exchange rate. Thus interest rate changes made to offset exchange rate may well be appropriate to deal with the general state of monetary conditions (which is why the exchange rate has been used as an important indicator of monetary conditions throughout the history of the MTFS)
- at Budget time, but not at other times (except in a major crisis), fiscal policy can be reviewed. Variations in fiscal policy will affect both money GDP and the balance of the economy, and budget decisions will normally represent a compromise between objectives on overall stance and on balance: eg if the prospects

Handwritten notes in red ink on the left margin:

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- ... depends on where the exchange rate stands within its target range
- ... in many (but not all) cases where inappropriately loose or tight monetary conditions call for policy response, this will be reflected in pressure on the exchange rate
- ... Thus interest rate changes made to offset exchange rate may well be appropriate to deal with the general state of monetary conditions (which is why the exchange rate has been used as an important indicator of monetary conditions throughout the history of the MTFS)

- on the one hand, in assessing monetary conditions during the year it will be helpful to have a benchmark against which to assess the actual behaviour of MO (but a benchmark clearly does not have to be a formal target);
- retaining an MO target will reduce the impression of discontinuity in successive versions of the MTFs: if it is dropped it will be the fourth aggregate to be axed in the eight year life of the MTFs;
- on the other hand, it is rather odd to have a target which there will in some circumstances (eg those prevailing for much of the latter part of 1987) be no instrument to control;
- having in effect an exchange rate target and a monetary target at the same time may lead to accusations that the Government has made a howler that an A level economics student would be ashamed of (however, other countries currently in the exchange rate mechanism of the EMS continue to target monetary aggregates).

Fiscal policy

30. Major public statements about fiscal policy in recent years, such as the Lombard Speech of April 1986, have emphasised the following objectives:

- public sector debt should not rise as a percentage of GDP;
- the Budget deficit must be set at a level that can be comfortably financed in a non-inflationary way;
- there should be scope for absorbing possible fiscal shocks.

These objectives essentially reflect the need to set fiscal policy for the medium term in a way that we (and markets) believe to be sustainable and consistent with a satisfactory structure of demand and output within the economy.

31. Preventing public sector debt rising as a percentage of GDP should ensure that the burden of debt interest payments does not rise. A situation in which the burden of debt interest payments is rising may not be regarded by the markets as sustainable, and will cause particular problems for public expenditure control given the objective of reducing total public expenditure (including debt interest payments) as a proportion of GDP. As a matter of arithmetic, the debt income ratio remains constant when the level of borrowing is set equal to the rate of nominal GDP growth of the economy times the existing debt income ratio. Taking the sustainable rate of real economic growth as around 2½ per cent, and the current debt income ratio of around 40 per cent, annual borrowing at a rate of 1 per cent of GDP would be consistent with a stable debt/income ratio at zero inflation.

32. The need to finance the deficit in a non-inflationary way can be seen in terms of what different levels of the public sector deficit imply for the portfolio of assets owned by the private sector. The assets of the UK private sector consist of the liabilities of the public sector, net overseas assets and the UK capital stock. If there is a particular level of wealth that the private sector wants to hold at a given level of income, then an increased holding of one of these categories of assets will mean, other things being equal, that less of the other categories will be held: thus an increased rate of creation of public sector liabilities will tend to "crowd out" holdings of overseas assets and claims on the domestic capital stock.

33. This crowding out shows up in the current account of the balance of payments and changes in the level of domestic investment. In a closed economy, expansionary fiscal policy tends to raise domestic interest rates and "crowding out" occurs by the mechanism of higher interest rates depressing domestic investment. In an open economy with a high degree of capital mobility domestic

interest rates are largely determined by foreign interest rates and markets' views about likely exchange rate movements. Thus expansionary fiscal policy may not initially have much effect on domestic interest rates or domestic investment; instead the initial effect of expansionary fiscal policy may well be primarily to cause a deterioration in the current account, leading to a decline in holdings of overseas assets. However, a sustained deterioration in a country's current account position is likely to lead eventually to a loss of confidence in financial markets and to rising interest rates: increasingly it will be domestic investment that will be crowded out by a continued rise in share of public sector debt in private sector portfolios.

34. Thus, other things being equal, a high Budget deficit is likely to mean:

- a. an increasingly negative contribution of net interest payments to the current account, requiring a growing proportion of the country's output to be devoted to the trade balance;
- b. a falling capital/output ratio, leading to a slowing of growth.

35. A fiscal policy stance which involves these effects on a large scale will probably not be sustainable for very long. Either policy will be reversed, or some of the growth in debt will be monetised (of course markets' fears about the second option will intensify the difficulties of sustaining the growth in debt because markets will demand increasingly high interest rates as compensation for the risk of eventual monetisation).

36. At times it may be possible to identify developments in the economy that change the appropriate level of public borrowing. One example is the process of transfer of ownership of physical assets from public to private ownership in the course of the present Government's privatisation programme. Another example

would be a sustained reduction in the private sector's saving ratio. This would lead to a worse current account (and possibly also lower domestic investment) unless the Government reacted by reducing its borrowing.

37. The figures in Table 1 show the relationship between public sector borrowing (as measured by the public sector financial deficit) and the private sector surplus and the balance of payments current account over the last thirty years. One general feature is the rise in private saving and in the private sector financial surplus in the 1970s, associated with the rise in inflation: individuals saved more out of current income to try and make good the erosion of existing savings by inflation. This higher level of saving allowed the public sector to run a high rate of borrowing with only a relatively small deficit on the current account.

38. In the 1980s the private saving ratio has fallen, largely because inflation has fallen. There have been some other temporary factors at work, which may continue to depress saving over the medium term. One is the growing number of firms that have declared pension contribution "holidays"; another is the effect of financial liberalisation which has reduced credit rationing and allowed households to undertake a greater level of indebtedness.

39. Private sector investment has shown an upward trend over the last thirty years. Much of this is accounted for by the transfer of investment from the public sector (more owner occupied housing and fewer local authority dwellings, in recent years the privatisation programme). Investment was relatively low early in the 1980s (in particular stockbuilding, which included in these figures, was depressed) but has risen since then, and is forecast to rise quite strongly in the near future, reflecting the higher rates of capacity utilisation recorded over the last year. This means that the private sector financial balance (adjusted to take account of the statistical discrepancy between income and

Table 1 FINANCIAL SURPLUSES (per cent of GDP)

	Private sector saving*	Private sector investment	Net acquisition of financial assets		
			Private sector* <i>CA(1) - CA(2)</i>	Public sector	Overseas sector**
1955-1958	12.9	10	2.9	-2.2	-0.7
1959-1962	13.6	11	2.6	-2.4	-0.2
1963-1966	13.8	11.5	2.3	-2.5	0.2
1967-1970	12.5	11.5	1.0	-0.8	-0.3
1971-1974	14.8	12.6	2.2	-3.1	0.9
1975-1979	17.5	12.2	5.3	-5.8	0.4
1979-1982	16.7	12.0	4.7	-3.6	-1.2
1983-1986	16.7	13.0	3.7	-3.2	-0.5
1987-1990	14.5	14.8	-0.3	-0.7	1.0

* Including national accounts residual error.

** Equals current account of balance of payments with sign reversed.

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- source of ... CA(1) ... CA(2)
domestic, ... CA(3)

expenditure measures of GDP) is forecast to go into a small deficit over the next few years, while in the past it has almost always been in substantial surplus. Thus even with a very small public sector deficit a current account deficit is forecast.

40. The only other period in the last thirty years when the public sector deficit was anything like as small as that now forecast was in the late 1960s. At that period also, private sector saving was unusually low: the personal sector saving ratio fell, partly because a relatively tight fiscal policy restrained the growth of real disposable income. Nevertheless, the decline in the public sector deficit between the mid 1960s and the end of the decade did lead to some improvement in the current account.

41. When the exchange rate is free to move, its immediate reaction to changes in the stance of fiscal policy is rather unpredictable: on the one hand any upward pressure on domestic interest rates from more expansionary policy may tend to attract capital inflows and push the exchange rate up, on the other hand market worries about the sustainability of policy following a fiscal expansion will tend to weaken the exchange rate. Under a fixed exchange rate regime, and with high capital mobility, whether expansionary fiscal policy exerts much upward pressure on domestic interest rates will depend on the extent of market worries about sustainability.

42. Pressures on the sterling/deutschemark rate may, of course, reflect German fiscal policy as much as UK fiscal policy. Tightening of German fiscal policy, if it leads to worries about the sustainability of the existing exchange rate, will require higher interest rate or a fiscal tightening in the UK. A very tight German fiscal policy and persistent large German current account surplus could eventually put similar pressures on the rate to a very expansionary UK fiscal policy: in either case the markets might eventually react so as to force either a sharp UK fiscal tightening or a devaluation of sterling against the deutschemark.

43. To the extent that it may sometimes be acceptable to abstract from the effect of market worries about sustainability, it is possible to use model simulations to indicate the scale of effect on the economy of temporary changes in fiscal policy. Table 2 shows simulation results on the effect of a reduction in income taxes sufficient to reduce the PSBR by 1 per cent of GDP under the two regimes that represent roughly the pre-Louvre and post Louvre framework, ie

- (a) fixed money GDP, achieved by changing interest rates
- (b) fixed exchange rate, achieved by changing interest rates

In these simulations it is specifically assumed that the fiscal expansion is reversed after 5 years, and that markets know from the start that it will be reversed; so that effects due to worries about sustainability do not arise.

Table 2 EFFECTS OF INCREASE IN PSBR*

% change from base in:	Fixed money GDP	Fixed exchange rate	%change from base in:	Fixed money GDP	Fixed exchange rate
<u>REAL GDP</u>			<u>SHORT TERM INTEREST RATE</u>		
Year 1	.0	+5	Year 1	+1.1	+1
Year 2	+5	+7	Year 2	-.2	+3
Year 3	+1.2	+1.0	Year 3	.0	+5
Year 4	+1.4	+1.3	Year 4	+7	+8
<u>RPI INFLATION</u>			<u>REAL EARNINGS</u>		
Year 1	+2	.0	Year 1	-.4	-.1
Year 2	-.7	-.3	Year 2	-.9	-1.0
Year 3	-.7	-.4	Year 3	-1.2	-1.5
Year 4	+1	+1	Year 4	-1.6	-1.8
<u>EMPLOYMENT</u>			<u>CURRENT ACCOUNT (£bn)</u>		
Year 1	+1	+3	Year 1	-.3	-1.2
Year 2	+4	+8	Year 2	-1.6	-2.0
Year 3	+1.2	+1.3	Year 3	-3.0	-2.5
Year 4	+1.9	+1.8	Year 4	-4.0	-3.3

NOMINAL EXCHANGE RATE

Year 1	+1.1	.0
Year 2	+.2	.0
Year 3	+.7	.0
Year 4	+1.2	.0

LONG TERM INTEREST RATE

Year 1	+1.6	+1.6
Year 2	+1.7	+1.8
Year 3	+1.9	+1.9
Year 4	+2.1	+2.0

REAL EXCHANGE RATE

Year 1	+1.1	.0
Year 2	-.3	-.3
Year 3	-.4	-.9
Year 4	-.2	-1.0

* PSBR is assumed to increase by 1 per cent of GDP for 5 years.

44. Under both frameworks temporary expansions in fiscal policy lead to temporary increases in output. An expansionary fiscal policy has a larger immediate impact on real GDP when interest rates are used to stabilise the exchange rate than when interest rates are used to stabilise money GDP (in the latter case the exchange rate rises). But apart from this there is not a large difference between the two regimes in the effect of temporary changes in fiscal policy on growth, inflation, or the current account.

45. In summary, the scope for sustained changes in fiscal stance on its own (ie without corresponding changes in monetary policy) is limited by the effect that such changes have on the balance of the economy, and the likely reactions of markets to such changes. This limitation on the scope for fiscal changes applies whether monetary policy is expressed in terms of a target for a monetary aggregate, money GDP, or the exchange rate. At the same time, short term changes in the profile of real output may in principle be achievable by temporary changes in fiscal stance, again under a variety of regimes for monetary policy.

Exchange rate realignments

46. The scale and frequency of exchange rate realignments will determine the extent to which the Government will be free to choose a particular medium term path of money GDP and to stick to it in the face of unexpected developments in the economy. Regular

(yearly) realignments might leave the Government with as much freedom as it would need for this purpose; but possibly at the cost of undermining the fixed exchange rate as a mechanism for reducing inflationary expectations.

47. It was suggested above that one option would be for exchange rate realignments to be confined to the occasion of general EMS realignments. Table 3 summarises the record of EMS realignments. There have been 11 realignments within the EMS, including 5 general realignments (for a detailed chronology of realignments see Appendix 2).

Table 3

EMS CENTRAL RATE CHANGES

	Belgian Franc	Danish Krone	Deutsche Mark	French Franc	Italian Lira	Irish Punt	Dutch Guilder
Total number of changes	5	6	7	5	5	3	6
Total percentage change in rate	-2½	-5½	+28	-11½	-18¾	-9½	+23

To take the case of one major currency, the rate of the French franc against the deutschemark has been changed on six occasions as a result of realignments of the franc and or deutschemark. Thus in the past there has been considerable latitude for exchange rate movements within the fixed exchange rate regime of the EMS. While the greater convergence of inflation within Europe may reduce the number of realignments in future, it seems likely that there would, over the course of a few years covered by the MTFPS, be one or two opportunities for limited realignments of sterling that would not undermine the credibility of the Government's commitment to a fixed exchange rate.

48. However, EMS realignments would not take place at the UK Government's convenience, to fit in with the timing of UK fiscal policy decisions. The scope for coordination of fiscal policy and exchange rate policy to achieve desired changes in the stance and balance of policy would be limited. Fiscal policy decisions would

be made in a situation of uncertainty about when any opportunity for exchange rate realignments might arise. Exchange rate realignments would be made in the knowledge that any consequential changes to fiscal policy that might be called for would have to await the next Budget.

CONVERGENCE OF INFLATION RATES IN THE 1960S

Some evidence on the likely behaviour of UK inflation under a fixed exchange rate can be obtained by looking at the degree of convergence of inflation in the industrial countries in the 1960s, before the breakdown of Bretton Woods. We consider here data for at consumer price inflation and manufacturing productivity in ten industrial countries. The information is summarised in the table attached.

2. For the period 1960-1970 as a whole, the cross-section correlation between average inflation and manufacturing productivity growth is 0.78. Japan, France, Italy, the Netherlands and Sweden emerge as relatively high productivity, high inflation countries; the US and Canada as the converse. Germany had rather less inflation than its productivity growth might have warranted while the UK had rather more. But as the second column of the table shows, Germany adjusted its exchange rate up during this period and the UK of course devalued. Belgium appears to be an outlier.

3. Adjusting rates of inflation for currency movements leads to a marginal improvement in the correlation across the whole sample even though three countries changed their parities during 1970 (when one would not expect to observe a full reflection in domestic inflation). Excluding these countries from the sample produces a correlation coefficient of 0.92.

4. The right hand panel of the table focuses on 1960-68 when only the UK is affected by a parity change in the final year. On the whole the evidence from this sub-sample appears to confirm the view that manufacturing productivity growth is a determinant of relative inflation under fixed exchange rates.

5. It is useful also to look at how much of these correlations is contributed by Japan with its double-digit productivity growth and markedly high inflation rate. The relevant statistics excluding Japan are as follows:

	1960-1970	1960-1968
Correlation between manufacturing productivity growth and:		
average inflation	0.528	0.691*
average inflation adjusted for exchange rate changes	0.584*	0.806*
(ditto, restricted sample)	(0.815)*	(0.760)*

*significant at 5% level

TABLE A1: INFLATION RATES AND MANUFACTURING PRODUCTIVITY

PER CENT PER ANNUM	1960-70			1960-68		
	AVERAGE INFLATION RATE	AVERAGE INFLATION RATE ADJUSTED FOR REAL- IGNMENTS	MANUFACT -URING PRODUCTI -VITY GROWTH	AVERAGE INFLATION RATE	AVERAGE INFLATION RATE ADJUSTED FOR REAL- IGNMENTS	MANUFACT -URING PRODUCTI -VITY GROWTH
United States	2.7	2.7	2.4	2.0	2.0	3.2
Japan	5.9	5.9	10.0	5.7	5.7	9.0
Germany	2.7	3.99**	4.7	2.7	3.3	4.7
France	4.0	2.75**	7.0	3.6	3.6	6.8
United Kingdom	4.1	2.43	3.0	3.6	1.51**	3.4
Italy	4.0	3.98	6.8	4.0	3.98	7.2
Canada	2.7	1.9**	3.6	2.4	0.96	3.9
Belgium	3.0	3.0	6.0	2.8	2.8	4.9
Netherlands	4.0	4.47	6.2	3.6	4.19	5.6
Sweden	4.0	4.0	6.1	3.8	3.8	5.2

Correlation with

productivity

0.777*

0.788*

0.852*

0.887*

(restricted

sample)

(0.919)*

(0.867)*

* significant at the 5% level.

** adjustment affected by change in exchange rate in last year of period.

Source: OECD.

THE FRAMEWORK OF MONETARY AND FISCAL POLICY: APPENDIX 2

CHRONOLOGY OF EMS CENTRAL RATE CHANGES

The table below sets out the details of EMS central rate changes.

		FB/FL	DKR	DM	FF	LIT	IRL	HFL
1979	23 September		-2.9	+2.0				
	30 November		-4.8					
1980				NONE				
1981	22 March (2)					-6.0		
	4 October			+5.5	-3.0	-3.0		+5.5
1982	21 February	-8.5	-3.0					
	12 June			+4.25	-5.75	-2.75		+4.25
1983	21 March	+1.5	+2.5	+5.5	-2.5	-2.5	-3.5	+3.5
1984				NONE				
1985	20 July (2)	+2.0	+2.0	+2.0	+2.0	-6.0	+2.0	+2.0
1986	6 April	+1.0	+1.0	+3.0	-3.0			+3.0
	2 August (2)						-8.0	
1987	12 January	+2.0		+3.0				+3.0

(1) Bold characters indicate general realignments.

(2) Realignments carried out without a formal ministerial meeting.

POLICY BACKGROUND TO THE 1988 BUDGET

ANNEX C

REVIEW OF THE MTFS SINCE 1984

*Impact condition
was 7000?
(see para 5 & 18)*

REVIEW OF THE MTFS SINCE 1984

I. INTRODUCTION AND SUMMARY

1. This paper looks at economic developments over recent years, and attempts to assess how and why they have differed from those envisaged in successive versions of the MTFS since 1984.

2. Rapid progress was made in reducing inflation from its peak in 1980 although growth performance was poor in the early 1980s: since 1983-84 the economy has been on a low inflation-steady growth plateau. Over the period 1983-87 both inflation (GDP deflator) and real output growth were relatively steady averaging about 4½ per cent and 3¼ per cent a year respectively. The latest forecast suggests that this plateau is likely to continue at least through to 1988-89. The relevant data are given in the following table:

Money GDP and the Inflation/Output Split
(per cent per annum)

	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88 ²	1988-89 ²
Money GDP ¹ Growth	9.2	8.1 (8.3)	7.3 (8.6)	9.7 (8.3)	6.6 (6.5)	9.0	7.7
Output growth ¹	1.8	3.3 (3.5)	2.5 (3.8)	3.6 (2.2)	3.3 (3.2)	4.1	2.8
Inflation (GDP Deflator)	7.1	4.6	4.4	6.0	3.0	4.6	4.8

1. Figures in brackets are adjusted for the coal strike

2. Figures from October Internal Forecast adjusted for stock market fall.

3. If the forecast to 1988-89 is included there is little sign of any medium term downward trend in money GDP growth or inflation over the period since 1983-84. This is despite the declining path for money GDP growth set in successive MTFSS with the intention of further reducing inflation. To help understand developments this paper reviews policy and performance in terms of a range of indicators. It focuses on revisions to the medium term paths between successive

versions of the MTFSS since 1984 and compares them against the outturn, or our latest view¹ for 1987-88 (and 1988-89). The remarks in the text are based on our interpretation of the detailed figures that appear in the set of tables at the end.

4. Money GDP has grown significantly faster than expected relative to successive versions of the MTFSS since 1984. Higher output growth and higher inflation have both contributed; but output growth has dominated the inflation component in the ratio of at least 2:1. This obviously implies that the inflation/output growth split has proved considerably more favourable than expected - particularly since the end of 1985-86. Thus we have prima facie evidence of better than expected supply-side performance (supported by other more direct indicators). However, if more favourable supply-side performance were the only factor we would have tended to expect more output growth and less inflation, instead of more of both. Consequently the explanation must range wider.

5. It was always implicit that faster underlying growth of output would permit a higher growth path for money GDP. To a significant extent this has happened. But it is interesting to explore whether policy was looser than the original policy settings intended it to be. The paper argues that, if anything, fiscal policy has been tighter than expected. In part this has been a direct consequence of faster output growth resulting in revenue buoyancy. Although it is difficult to argue that fiscal policy has contributed directly to faster money GDP growth, it may have contributed indirectly by enhancing market confidence which has permitted lower interest rates for a given exchange rate. For example, compared to the 1986 (and 1987) MTFSSs interest rates have been lower than expected because of growing exchange rate confidence. The net effect on monetary conditions (relative to the more recent MTFSSs) may have been fairly neutral, although it would seem that the overall loosening of monetary conditions following the unexpected loss of confidence during 1984-85 has not been reversed by policy. Thus policy may have contributed a little to faster growth of money GDP relative to the 1984 MTFSS. Nonetheless, it does not seem to provide any clear explanation for faster money GDP growth than expected in the subsequent MTFSSs.

¹ Internal October Forecast adjusted for the stock market fall

Private savings have probably been falling more than expected, which would have added to demand pressures and the growth of money GDP, although errors in the data mean we cannot be certain. On the other hand, world developments have probably been a negative influence even though unexpected falls in real oil and commodity prices have no doubt helped to ease inflation and improve supply behaviour. Finally, improved supply-side performance - for which the evidence is quite persuasive - combined with sustained earnings growth have been key factors accounting for the faster than expected growth of money GDP. On its own improved supply-side flexibility would simply have enhanced output growth and reduced inflation. Excessive earnings growth alone would have done the reverse. Together, however, and taking account of the fall in private savings, they seem to have resulted in a case of supply creating its own demand. The supply-side performance combined with rapid earnings growth has encouraged a shift in demand. This is consistent with the unexpected strength of money GDP growth consisting of both additional output growth and inflation; but with output growth being the more dominant factor.

7. Overall we can conclude that the inflationary effects of the easier monetary conditions that followed the exchange rate fall during 1984-85, of the fall in private savings and of sustained rapid earnings growth, have been mitigated by progressively better than expected supply-side performance (in part due to favourable oil and commodity price movements); with the result that unexpected output growth has come to dominate the explanation of faster money GDP growth.

8. The layout of the paper is as follows. The next section establishes the facts about money GDP growth and the split between inflation and output growth. Subsequent sections then look respectively at unexpected policy and non-policy developments. Section III covers fiscal policy, monetary policy and monetary conditions. In section IV we examine external developments in world trade and oil and commodity prices; indicators of supply-side performance; and demand side developments associated with earnings growth and shifts in private savings and investment behaviour.

I MONEY GDP GROWTH AND THE INFLATION/OUTPUT GROWTH SPLIT

9. Table 1 shows a clear pattern of successive upward revisions to the path of money GDP growth since the 1984 MTFS. This contrasts with the downward revision to the path that occurred between the 1983 and 1984 versions of the MTFS. It is also apparent from tables 2 and 3 that in general both inflation and output growth paths have been subject to upward revisions. The exceptions are associated with the oil price shock in 1986 and the coal strike in 1984 (assumed in the 1984 MTFS to be short-lived).

10. A clearer picture of the cumulative effect of the successive revisions is given in tables 4, 5 and 6. These show:

- without exception cumulative money GDP growth over 1983-84 has been revised upwards in each successive MTFS irrespective of which forecast year we look at. Also each MTFS understated the cumulative final outturn now estimated for 1987-88 and 1988-89;
- the same can be said for output growth; and the pattern is similar for inflation but to a lesser extent, helped by the oil price fall.

11. An alternative presentation is given in table 7 which further highlights the extent of cumulative money GDP growth revisions and the relative contributions of revisions to inflation and output growth. This shows that upward revisions to output growth have been the dominant factor in upward revisions to money GDP growth for the years after 1985-86. For example, it can be seen that money GDP growth to 1987-88 (cumulative over 1983-84) is now expected to be about 7½ per cent higher than shown in the 1984 MTFS: about two thirds (5 per cent) of this is accounted for by higher output growth. Typically the output growth contribution to cumulative money GDP growth revisions has dominated the inflation contribution by a ratio of at least 2:1 (1985-86 being the obvious exception).

12. Thus faster than expected output growth has been the major contributory factor to faster than expected money GDP growth (although inflation has also on average been higher than expected). In other

nds the inflation/output growth split of money GDP has proved considerably more favourable than previously expected - particularly since the end of 1985-86.

III. MACROECONOMIC POLICY AND MONETARY CONDITIONS

13. **Fiscal Policy:** Substantial progress towards lowering the PSBR (including and excluding privatisation proceeds) as a percentage of GDP commenced in 1985-86 (see table 8). Without doubt the fiscal deficit has been reduced significantly faster and further than previously planned. In part this is due to faster than expected growth of output; for example we could reasonably explain most of the reduction in 1987-88 relative to the 1984 MTFs in these terms. But it is clear that in successive editions of the MTFs there has been a notable failure to catch up with the pace of reduction of the PSBR.

14. General Government Expenditure (excluding privatisation proceeds) has fallen as a percentage of GDP and is expected to continue falling more or less in accordance with previous plans (see table 9). In cash terms previous GGE plans have, of course, been overshot, but the ratio to GDP has been rescued by faster than expected money GDP growth. A second way in which higher output growth has worked to arrest slippage against previous plans is through its direct impact on GGE, for example through lower unemployment benefits and higher public corporation surpluses.

15. The counterpart to the PSBR and GGE picture is a tax burden path that turned out unexpectedly high in 1986-87 and is currently expected to do so again in 1987-88 (see table 10). In part this is due to the 1987 Budget decision to take part of the benefit of unexpected revenue buoyancy in a lower PSBR. The result has been that the tax burden has not fallen as intended in earlier MTFs. This is even more obvious for the non-oil tax burden (see table 11), which increased to compensate for the loss of oil revenues in 1986-87, and is currently expected to turn out higher again in 1987-88.

16. **Monetary Policy and Conditions:** The indicators in this area are less easy to interpret. The path for MO is not now expected to show much hint of the downward trend that characterised the 1984 MTFs (see table 12). The only discernible pattern seems to be that the 1985 MTFs was fairly close to what we now know or expect, but the later

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MTFSs were too optimistic. In part this reflects the pattern of short term interest rates (see table 14), as we would expect to see an inverse relationship between them and MO. With regard to broad money (M3) growth table 13 shows the extreme optimism of the earlier MTFSS and the familiar fact that actual growth has consistently overshoot previous expectations to a progressive extent with each year.

17.. Nominal short term interest rates have been much higher than expected in the 1984 MTFSS (with a less marked sign of downward trend); pretty much the same as in the 1985 MTFSS; and lower than expected in the 1986 and 1987 MTFSSs (see table 14). A similar pattern is evident for real short term interest rates (table 15). But the increase in UK short rates in 1985-86 went against the trend of world interest rates (table 17), and the fall in 1986-87 did not reflect the full extent of the fall in world interest rates. The result was a significant unexpected widening in the differential of UK over world rates in 1985-86 that carried through to 1986-87 (table 18).

18. Bringing the exchange rate into the frame fills out the picture (see table 16). The 1984 MTFSS appears to have been over optimistic on market confidence in sterling. In response to the fall of sterling during 1984-85 monetary policy was tightened ie interest rates were raised absolutely and relative to world rates. Nevertheless, on balance monetary conditions probably remained easier than envisaged in the 1984 MTFSS (and have continued to do so). The 1985 MTFSS made a fairly good judgement about market confidence - the differences in the exchange rate path relative to the outturn being explained by a higher UK/world interest rate differential, and the oil price effect. The 1986 MTFSS seems to have been too pessimistic about exchange market confidence: the exchange rate has turned out much as expected, despite a narrower interest rate differential than expected. The apparent recovery of market confidence since 1985-86 can be partly associated with policy - especially the tightening of both fiscal and monetary policies in early 1985 and the prudent Budgets of 1986 and 1987. All other things being equal, this could have led to tighter monetary conditions than envisaged in the 1985 to 1987 MTFSSs. However, the opportunity has been taken to allow interest rates to fall (easier monetary policy) which has tended to stabilise the exchange rate. The overall result is that monetary conditions have probably remained much as expected (except relative to the tighter position envisaged in the 1984 MTFSS), although perhaps a little easier in 1986-87.

The conclusion from this discussion of policy is that it is difficult to find a clear explanation for faster than expected money GDP growth in terms of looser policy settings. Arguably the interest rate response to a favourable swing of confidence in recent years has broadly neutralised the effect on monetary conditions. More obviously the overall loosening of monetary conditions following the loss of confidence during 1984-85 (and relative to the 1984 MTF5) has not been reversed by policy.

20. Although policy has not been significantly looser than intended when judged in terms of policy settings, it was not sufficiently tight to deliver the original objectives for inflation. Various factors, discussed in the next section, put upward pressure on money GDP growth, and policy was not sufficiently tight to prevent them pushing up inflation. The definition of policy stance in terms of whether inflation deviated from the MTF5 path leaves no escape from the conclusion that policy was looser than intended even though it was not loose relative to the original settings. On the other hand it was always implicit that a faster growth of output would permit a higher growth path for money GDP. To a significant extent this is what has happened.

IV. NON-POLICY DEVELOPMENTS

21. External Factors: World trade growth has generally been appreciably weaker than expected (see table 19), and so would not seem to have contributed to faster than expected money GDP growth. It also seems unlikely that oil price changes (see table 20) have contributed. Following the big shock in early 1986 the exchange rate was allowed to depreciate offsetting at least some of the beneficial effect on inflation. But inflation was clearly lower than expected in 1986-87 and it is difficult to believe this had nothing to do with oil prices. Non-oil output probably received some boost with oil output little changed, at least in the short term. On balance the net effect on money GDP growth seems likely to have been small - if anything slightly restraining it. Unexpected commodity price changes (see table 21) are another influence that has probably taken pressure off inflation - perhaps quite substantially. A supply-side benefit to output also seems probable, but again this does not contribute clearly towards an explanation of unexpected upward pressure on money GDP growth reflecting both output growth and inflation.

2 ● The Supply-Side: Indirect evidence on better than expected supply-side performance is testified by the inflation/output growth split having been much more favourable than previously expected (as discussed in section II). The degree of improvement points clearly towards an unexpected outward shift or a favourable tilt of the supply curve. Further evidence comes from labour productivity comparisons (see table 22) which show that the 1984 and 1985 MTFSSs sharply underestimated the trend rate of growth. Profit margin comparisons (see table 23) also corroborate the picture of improved supply-side performance. With regard to trade performance unexpected improvement is more obvious with respect to exports than imports. Import penetration in manufactures (see table 24) has risen marginally less than expected. This is more clearly indicative of better performance once we allow for faster than expected output growth (which would normally be expected to add further to import penetration). However, comparisons in terms of total imports as a percentage of total final expenditure are more ambiguous. On the other hand the UK share in main country exports of manufactures (see table 25) has fairly consistently exceeded expectations.

23. The only obvious aspect of supply-side performance that has turned out worse than expected is earnings growth (see table 26). This has failed to show any downward adjustment or conformity with the trend decline projected in successive MTFSSs. Maybe the persistently high earnings growth has itself to some extent spurred productivity growth, which along with other favourable supply-side influences has in turn enabled further earnings growth to be accommodated. But productivity growth has more than compensated in the sense that unit labour costs have on average been somewhat lower than expected, helped by only small rises in non-wage labour costs. Moreover, monetary policy has allowed exchange rate movements that have permitted this to be translated into better than expected competitiveness (relative unit labour costs - see table 27).

24. Overall, supply-side responses would seem to have improved sufficiently to accommodate rapid earnings growth, while at the same time leading to higher than expected output growth. The end result is perhaps consistent with faster than expected money GDP growth showing up rather more in output growth than inflation.

2 ● Demand Pressures: The high degree of unexpected earnings growth coupled with favourable supply-side performance (which has given rise to unexpectedly high employment) have made an important contribution to creating additional nominal demand. There also appears to be something in the argument that unexpected year to year falls in the personal sector savings ratio (see table 28) between 1984 and 1986 may have added to domestic demand pressure. An examination of the recorded figures from total private sector savings (see table 29) suggests no obvious pattern, but there has been an increasingly negative residual in the national accounts which suggests that "true" private savings have probably been falling as much as or more than expected. This could therefore have contributed to the unexpected domestic demand growth. On the other hand, there is little evidence that the growth in the share of private sector domestic investment was underestimated in the MTFSS (see table 30).

TABLES

● NB All figures in the MTFSS rows of the tables are forecasts/projections, except those in brackets in certain tables which are estimated outturns as at the time.

Figures in the Adjusted October Forecast lines are latest estimates of outturns up to and including 1986-87 and forecasts thereafter.

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Table 1: Money GDP Growth (%)

	1983-84	1984-85	1985-86	1986-87	1987-88	1988-89
1983 MTFS	7.9	8.5	7.6	6.6		
1984 MTFS		7.9	6.8	6.1	5.6	5.2
1985 MTFS			8.4	6.6	5.7	5.0
1986 MTFS				6.8	6.4	6.0
1987 MTFS					7.5	6.4
ADJ OCT FORECAST	8.1(8.3*)	7.3(8.6*)	9.7(8.3*)	6.6(6.5*)	9.0	7.7

*Coal strike adjusted figures

Table 2: Inflation: Growth of GDP (Market Price) Deflator (%)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	4.6	4.2	3.9	3.5	3.1
1985 MTFS		5.0	4.4	3.5	2.9
1986 MTFS			3.7	3.8	3.3
1987 MTFS				4.4	4.0
ADJ OCT FORECAST	4.4	6.0	3.0	4.6	4.8

Table 3: Real GDP (at Factor Cost) Growth (%)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	3.2	2.4	2.0	2.0	2.0
1985 MTFS		3.5	1.9	2.0	1.9
1986 MTFS			2.9	2.4	2.5
1987 MTFS				2.8	2.4
ADJ OCT FORECAST	2.5(3.8*)	3.6(2.2*)	3.3(3.2*)	4.1	2.8

*Coal strike adjusted figures

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Table 4: Money GDP Cumulative Growth Over 1983-84(%)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	7.9	15.2	22.3	29.1	35.8
1985 MTFS	(6.8)	15.8	23.4	30.4	37.0
1986 MTFS	(6.9)	(17.2)	25.1	33.1	41.1
1987 MTFS	(7.4)	(17.8)	(25.0)	34.4	42.9
ADJ OCT FORECAST	7.3(8.6*)	17.6(17.5*)	25.4	36.6	47.2

*Coal strike adjusted figures

Table 5: Inflation: Cumulative Growth of GDP Deflator Over 1983-84 (%)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	4.6	9.0	13.2	17.2	20.8
1985 MTFS	(4.4)	9.6	14.4	18.4	21.9
1986 MTFS	(4.1)	(10.5)	14.5	18.9	22.9
1987 MTFS	(4.3)	(10.8)	(14.3)	19.3	24.1
ADJ OCT FORECAST	4.4	10.7	14.0	19.2	25.0

Table 6: Real GDP Cumulative Growth Over 1983-84 (%)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	3.2	5.7	7.8	9.9	12.1
1985 MTFS	(2.2)	5.8	7.8	9.9	12.0
1986 MTFS	(2.6)	(6.1)	9.2	11.8	14.6
1987 MTFS	(2.9)	(6.2)	(9.2)	12.2	14.9
ADJ OCT FORECAST	2.5(3.8*)	6.2(6.1*)	9.7	14.2	17.4

*Coal strike adjusted figures

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**Table 7: Cumulative Outturn/Adjusted October Forecast LESS
Cumulative Growth in MTFSS (both relative to 1983-84 base)***

	(percentage points)				
	1984-85	1985-86	1986-87	1987-88	1988-89
Money GDP Growth:					
Revision relative to					
1984 MTFSS	0.7	2.3	3.1	7.5	11.4
1985 MTFSS		1.7	2.0	6.2	10.2
1986 MTFSS			0.3	3.5	6.1
1987 MTFSS				2.2	4.3
Inflation Contribution:					
Revision relative to					
1984 MTFSS	-0.2	1.8	0.9	2.2	4.7
1985 MTFSS		1.2	-0.4	0.9	3.5
1986 MTFSS			-0.5	0.3	2.4
1987 MTFSS				-0.1	1.0
Output Growth Contribution:					
Revision relative to					
1984 MTFSS	0.6	0.4	2.2	5.1	6.6
1985 MTFSS		0.3	2.2	5.1	6.7
1986 MTFSS			0.6	2.9	3.5
1987 MTFSS				2.4	3.1

*Shortfall of cumulative MTFSS path growth rate against latest outturn/forecast (where the outturn is coal strike adjusted). The money GDP growth figures can be derived directly from Table 4, and the decomposition into inflation and output growth contributions follows from the figures in Tables 5 and 6 after allowing for multiplicative interaction.

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Table 8: PSBR Excluding Privatisation Proceeds as Percentage of GDP

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	2.8	2.9	2.4	2.3	2.2
1985 MTFS		2.7	2.6	2.3	2.3
1986 MTFS			3.1	2.9	2.7
1987 MTFS				2.2	2.1
ADJ OCT FORECAST	3.7(2.8*)	2.3(2.1*)	2.0	0.8	-0.2

*Coal strike adjusted figures

Table 9: GGE Excluding Privatisation Proceeds as a Percentage of GDP

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	45.2	44.0	43.0	41.8	40.7
1985 MTFS		45.8	44.0	42.9	41.8
1986 MTFS			44.0	42.9	41.6
1987 MTFS				43.4	42.4
ADJ OCT FORECAST	46.2	44.6	44.0	42.1	41.3

Table 10: Tax Burden (Total Taxes plus NICs after Fiscal Adjustment as a Percentage of GDP)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	38.9	38.4	37.4	36.7	35.8
1985 MTFS		39.0	36.3	37.1	36.3
1986 MTFS			37.6	36.8	36.0
1987 MTFS				38.0	37.3
ADJ OCT FORECAST	39.1	38.5	38.0	38.2	38.4

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Table 11: Non North Sea Tax Burden (Non-North Sea Taxes plus NICS after Fiscal Adjustment as a Percentage of Non-North Sea Money GDP(A))

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	38.0	37.6	36.7	36.0	35.0
1985 MTFS		37.8	36.9	36.4	35.8
1986 MTFS			36.9	36.6	35.7
1987 MTFS				37.8	37.1
ADJ OCT FORECAST	37.9	37.0	37.5	38.0	38.2

Table 12: M0 Growth (Percentage Change of Average Level Outstanding During Year)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	7.0	5.7	5.6	4.6	3.3
1985 MTFS		4.6	4.4	5.5	4.5
1986 MTFS			2.6	3.9	4.9
1987 MTFS				4.0	3.4
ADJ OCT FORECAST	5.5	4.3	4.3	5.3	4.9

Table 13: M3 Growth (End Year to End Year Percentage Change)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	8.8	8.2	8.0	7.0	6.0
1985 MTFS		8.0	7.2	6.2	5.2
1986 MTFS			11.3	11.4	9.7
1987 MTFS				14.4	13.1
ADJ OCT FORECAST	11.9	16.9	19.0	20.1	11.8

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Table 14: Short Term Interest Rates (3 month Interbank Rate, %)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	9.7	8.7	7.8	6.8	6.1
1985 MTFS		11.9	10.1	9.3	8.5
1986 MTFS			12.1	11.3	9.7
1987 MTFS				10.5	10.3
ADJ OCT FORECAST	10.9	12.1	10.5	9.2	9.0

Table 15: Real Short Term Interest Rates (3 month Interbank Rate less Backward Consumer Price Inflation, (%))

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	5.1	4.0	3.5	3.1	3.0
1985 MTFS		7.5	6.2	6.0	5.8
1986 MTFS			8.1	7.9	5.8
1987 MTFS				6.7	7.0
ADJ OCT FORECAST	5.9	7.1	7.4	6.1	5.0

Table 16: Effective Sterling Exchange Rate (1975 = 100)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	83.5	83.4	82.5	81.3	80.2
1985 MTFS		73.5	73.9	72.4	72.0
1986 MTFS			73.3	70.6	69.2
1987 MTFS				70.4	68.7
ADJ OCT FORECAST	76.2	79.0	71.5	73.4	73.8

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**Table 17: World Short Term Interest Rates: G7 (excluding UK)
Weighted Average (%)**

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	8.6	8.1	8.0	8.0	8.0
1985 MTFS		8.9	7.6	7.2	7.3
1986 MTFS			6.7	5.9	5.5
1987 MTFS				6.0	6.4
ADJ OCT FORECAST	9.5	8.0	6.3	6.5	6.6

**Table 18: UK/World Short Term Interest Rate Differentials
(Table 14 less Table 17), Percentage Points**

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	1.1	0.6	-0.2	-1.2	-1.9
1985 MTFS		3.0	2.5	2.1	1.2
1986 MTFS			5.4	5.4	4.2
1987 MTFS				4.5	3.9
ADJ OCT FORECAST	1.4	4.1	4.2	2.7	2.4

**Table 19: World Trade Growth (Weighted World Imports of Goods -
UK Weights)(%)**

	1984	1985	1986	1987	1988
1984 MTFS	4.9	5.8	5.6	4.6	3.6
1985 MTFS		4.6	4.7	4.5	5.0
1986 MTFS			4.9	4.7	4.3
1987 MTFS				3.0	4.3
ADJ OCT FORECAST	7.1	4.0	4.0	3.1	3.3

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Table 20: Real Sterling Oil Price (1984-85 Outturn = 100)
(Sterling Oil Price/Sterling Manufactured Export Prices)

	1984-85	1985-86	1986-87	1987-88	1988-89
1984 MTFS	90.1	82.6	81.5	81.4	81.4
1985 MTFS		93.8	81.1	74.6	73.8
1986 MTFS			43.8	41.9	41.0
1987 MTFS				37.7	36.8
ADJ OCT FORECAST	100	83.5	35.8	43.0	40.7

Table 21: Real Commodity Prices, Percentage Change
(UK UVI for Imports of Basic Materials/UK UVI for
Manufactured Exports)

	1984	1985	1986	1987	1988
1984 MTFS	6.9	2.2	0.9	1.4	0.7
1985 MTFS		1.6	-6.0	0.7	2.6
1986 MTFS			-10.8	3.3	-3.7
1987 MTFS				-1.6	6.6
ADJ OCT FORECAST	6.5	8.8	-15.5	-1.8	-0.5

Table 22: Whole Economy Labour Productivity Growth (%)

	1983	1984	1985	1986	1987	1988	6 year average
1984 MTFS	(2.8)	2.4	1.8	1.3	1.4	1.4	1.8
1985 MTFS		(1.2)	2.2	0.9	0.9	0.9	1.6
1986 MTFS			(2.6)	2.2	1.5	1.5	2.2
1987 MTFS				(2.1)	2.0	1.4	2.2
ADJ OCT FORECAST	4.0	1.6	2.2	2.4	2.7	1.1	2.3

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Table 23: Domestic Profit Margins in Manufacturing, Percentage Change

	1984	1985	1986	1987	1988
1984 MTFS	1.0	0.3	-0.3	0.2	-0.2
1985 MTFS		-0.9	0.3	-0.9	0.1
1986 MTFS			4.1	-0.1	1.4
1987 MTFS				2.3	0.9
ADJ OCT FORECAST	0.7	2.0	4.9	3.3	1.6

Table 24: Import Penetration in Manufactures (Percentage of Total Demand for Manufactures met by Imports)

	1984	1985	1986	1987	1988
1984 MTFS	34.9	35.9	36.6	37.7	38.9
1985 MTFS		35.7	36.8	38.1	39.7
1986 MTFS			36.5	37.3	37.7
1987 MTFS				37.0	37.8
ADJ OCT FORECAST	35.1	35.6	36.5	37.3	38.7

Table 25: Share of UK in Main Countries Manufactured Exports (Measured at Constant Prices): Index, 1984 = 100

	1984	1985	1986	1987	1988
1984 MTFS	100	100.0	100.3	100.8	101.6
1985 MTFS		100.9	100.5	99.5	99.2
1986 MTFS			103.7	104.2	104.5
1987 MTFS				106.9	107.7
ADJ OCT FORECAST	100	104.2	104.0	108.8	108.8

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Table 26: Private Sector Earnings Growth (%)

	1984	1985	1986	1987	1988
1984 MTFS	7.9	6.6	5.9	4.9	3.9
1985 MTFS		7.7	6.9	4.9	3.7
1986 MTFS			8.2	6.3	4.8
1987 MTFS				7.0	6.4
ADJ OCT FORECAST	5.9	7.9	8.1	8.1	7.8

Table 27: Competitiveness of Manufactures (Relative Unit Labour Costs, 1980 = 100)

	1983	1984	1985	1986	1987	1988
1984 MTFS	(97.1)	98.5	97.0	94.3	90.0	85.0
1985 MTFS		(94.1)	90.4	92.5	90.8	85.6
1986 MTFS			(97.4)	91.2	88.7	85.4
1987 MTFS				(83.0)	80.5	79.8
ADJ OCT FORECAST	92.6	90.3	92.1	83.4	83.3	84.8

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Table 28: Personal Sector Saving Ratio (Personal Sector Saving as a Percentage of Personal Sector Disposable Income)

	1983	1984	1985	1986	1987	1988
1984 MTFS	(9.5)	8.7	9.1	8.8	7.8	6.9
1985 MTFS		(10.7)	11.1	11.2	10.8	10.2
1986 MTFS			(11.3)	12.1	11.8	11.5
1987 MTFS				(10.8)	10.8	10.0
ADJ OCT FORECAST	10.7	11.2	10.4	9.1	9.1	9.2

Table 29: Domestic Private Sector Savings as a Percentage of Gross National Disposable Income*

	1983	1984	1985	1986	1987	1988
1984 MTFS	(14.7)	15.6	15.2	14.3	14.1	13.9
1985 MTFS		(17.4)	18.8	17.7	17.8	17.6
1986 MTFS			(19.0)	19.2	18.9	19.0
1987 MTFS				(17.1)	17.9	17.1
ADJ OCT FORECAST	16.3	17.9	18.1	17.5	18.0	17.0

*Small errors arise owing to minor technical problems with the MTFS figuring, but they should not affect comparison between MTFS paths or outturn. The figures are not adjusted to make allowance for the national accounts residual error problem.

Table 30: Domestic Private Sector Investment (including Stockbuilding) as a Percentage of Gross National Disposable Income)

	1983	1984	1985	1986	1987	1988
1984 MTFS	(10.8)	11.8	12.4	12.3	12.8	13.0
1985 MTFS		(12.6)	13.2	13.7	14.0	14.8
1986 MTFS			(13.3)	13.8	14.3	14.1
1987 MTFS				(13.7)	14.5	14.4
ADJ OCT FORECAST	11.5	12.8	13.4	13.5	14.0	14.3