

RESERVE AND CONFIDENTIAL

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etc.

Tim Cockerill

Ms. 63

TR

These are the figures which informed  
the Chancellor's recent paper. They are very sensitive:  
they have not gone (and will not go) outside the  
Treasury, and the circulation within the Treasury was  
very narrow and purely confidential. Please treat  
accordingly.

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23/11

## THE MEDIUM TERM PROSPECT

PERSONAL

Introduction

This note briefly summarises the medium term prospect (Case A) and presents some results on an optimistic variant, which has become known as the "better world" (Case B). Case A is an extension over the medium term of the main case in the report on the short term forecast (circulated on October 22 under a covering minute to the Chancellor by Mr Shepherd) and is identical to this for the first two years. The "better world" case has been designed on somewhat different principles to the four variants in the short term forecast, but does have some features in common with these.

2. Both Cases A and B have been constructed (i) with constant indexed tax rates, or (ii) with a declining path for the PSBR, achieved by varying personal taxes. The declining path for the PSBR is as set out in the FST's note to the Chancellor of September 24. An alternative procedure would be to fix an "acceptable" path for interest rates rather than for the PSBR and work out the tax implications of this. At the moment, however, it is computationally simpler to fix the PSBR.

3. It is worth noting that all the cases assume that public expenditure plans for 1981-82 to 1983-84 are as proposed by Treasury ministers and not the higher totals that have been agreed by Cabinet.

4. The tables attached to this note are

Table I	Case A(i)	:	The main case (identical to the short term forecast for 1980 & 1981).
Table II	Case A(ii)	:	as in A(i) with a declining path for the PSBR achieved by varying taxes.
Table III		:	The changes in taxes needed to achieve the PSBR target in Case A(ii).
Table IV	Case B(i)	:	The "better world" case.
Table V	Case B(ii)	:	The "better world" case with the PSBR constructed as in A(ii).

- Table VI : The changes in taxes needed to achieve the PSBR target in Case B(ii)
- Table VII : The growth in potential output over the medium term.
- Table VIII : A summary comparison of Cases A(ii) and B(ii).

The medium term prospect in the main case (Cases A(i) and A(ii))

5. The assumptions on policy and behaviour are essentially the same as those summarised in the report on the short term forecast and are not given in detail again here.

Case A(i)

6. The main features of the prospect in Case A(i) (Table I) are as follows:

- (i) The fall in GDP comes to an end in 1982, but the subsequent rise is extremely modest. Manufacturing output falls throughout the period. Unemployment rises steadily through the period.
- (ii) The rate of increase of average earnings falls steadily after 1980 to reach 9 per cent in 1983. This gives an idea of the strength of the unemployment effect in the main earnings equation. The rate of increase in the RPI falls more slowly and real take home pay falls in every year.
- (iii) The effective exchange rate falls, but only enough to maintain labour cost competitiveness at the extremely unfavourable level reached in 1979.
- (iv) The PSBR as a share of GDP at market prices rises until 1981-2 after which it falls. The PSBR path and the assumed target growth for  $SM3$  together imply rises in interest rates until 1981-82 and only modest falls thereafter.

TABLE 1

CASE A(i)

Percentage changes on a year earlier unless otherwise stated.

	1978	1979	1980	1981	1982	1983	Annual Average 1978-83
<u>Activity</u>							
GDP	2.6	1.2	-3.3	-1.8	0.1	0.8	-0.6
Manufacturing Output	0.4	0.6	-7.0	-4.2	-1.5	-0.7	-2.6
Unemployment (%) (narrow)	5.6	5.3	6.4	8.4	9.6	10.1	7.6
<u>Prices &amp; Costs</u>							
Average Earnings	13.8	15.0	16.9	13.4	11.5	9.0	13.1
RPI	8.3	13.5	17.8	15.3	12.5	10.6	13.9
Real take-home pay	6.4	3.2	-1.1	-1.7	-0.7	-1.4	-0.4
<u>Balance of Payments &amp; Exchange Rate</u>							
Effective Exchange Rate	63.0	67.5	62.8	60.4	58.3	56.4	61.4
Labour Cost Competitiveness	93.1	106.1	105.2	106.7	107.8	106.8	104.3
Current Balance (£bn)	1.0	-2.9	-2.2	0.9	0.4	-0.4	-0.5
<u>Borrowing Requirement &amp; Financial Forecast (financial years)</u>							
FSBR (£bn)	9.3	8.7	10.3	12.7	12.2	11.2	10.7
as % of GDP at market prices	5.6	4.5	4.7	5.1	4.4	3.6	4.7
£M3	11.5	10.7	9.0	8.5	8.0	7.0	8.7
LA 3 month interest rate (%)	10.7	13.6	14.8	15.4	14.5	13.0	13.7
20 year gilt rate (%)	12.9	12.7	14.6	15.0	14.4	13.0	13.8

TABLE 10 CASE A(ii) PSBR TARGET ACHIEVED THROUGH CHANGES TO PERSONAL TAXES

Percentage changes on a year earlier unless otherwise stated.

	1978	1979	1980	1981	1982	1983	Annual Average 1978-83
<u>Activity</u>							
GDP	2.6	1.2	-3.4	-2.2	0.0	1.1	-0.7
Manufacturing Output	0.4	0.6	-7.1	-4.7	-1.7	-0.3	-2.7
Unemployment (%) (narrow)	5.6	5.3	6.4	8.5	9.9	10.3	7.7
<u>Prices &amp; Costs</u>							
Average Earnings	13.8	15.0	16.9	13.3	11.1	8.5	12.9
RPI	8.2	13.5	17.8	15.0	12.1	10.2	13.7
Real take-home pay	6.4	3.2	-1.1	-1.7	-0.7	-1.4	-0.3
<u>Balance of Payments &amp; Exchange Rate</u>							
Effective Exchange Rate	63.0	67.5	62.7	60.3	58.6	56.7	61.5
Labour Cost Competitiveness	93.1	106.1	104.9	106.3	107.8	106.4	104.1
Current Balance (£bn)	1.0	-2.9	-1.9	2.0	2.2	1.2	0.3
<u>Borrowing Requirement &amp; Financial Forecast (financial years)</u>							
PSBR (£bn)	9.3	8.6	8.8	8.6	8.3	7.7	8.5
as % of GDP at market prices	5.6	4.5	4.1	3.5	3.0	2.5	3.8
EM3	11.5	10.7	9.0	8.5	8.0	7.0	8.7
LA 3 month interest rate (%)	10.7	13.6	14.3	13.8	12.7	11.1	12.7
20 year gilt rate (%)	13.0	12.7	14.1	13.5	12.6	11.1	12.8

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TABLE III : TAX CHANGES TO MEET PSBR TARGET IN CASE A(ii)

	PSBR <i>///</i> RATIO IN CASE A(i)	TARGET PSBR RATIO IN CASE A(ii)	EX ANTE CHANGES IN TAXES TO ACHIEVE TARGET PSBR		
			£m	£m at 1979(4) prices	<i>^</i> pence on <i>^^</i> basic rate
1980/81	4.7	4.0	1501	1311	2.7
1981/82	5.1	3.5	4000	3073	6.4
1982/83	4.4	3.0	3363	2323	4.8
1983/84	3.6	2.5	1968	1242	2.6

*^* Current price tax changes deflated by the consumers' expenditure deflator.

*^^* Assumes no accompanying changes to either higher rates or bands; these estimates are therefore largely illustrative.

*///* Ratio of PSBR to GDP at market prices.

Case A(ii)

7. The main features of Case A(ii) are in Table II. The tax increases necessary to achieve the declining path for the PSBR are in Table III.

8. Constraining the PSBR produces a not unacceptable path for interest rates. The increases in the level of taxes from those produced by constant indexed tax rates are considerable. In 1981-82 the increase is equivalent to 6½ pence on the basic rate, though there is some decline thereafter to a level of basic rate still above the present rate.

9. In spite of the substantial increases in personal taxes the effect on growth and inflation are quite small. The explanation for these somewhat paradoxical results are complicated, but they do illustrate the strength of the interest rate effects (in this case a "crowding in" effect) in the Treasury model. Lower interest rates for given money supply produce a lower exchange rate and thus produce better competitiveness and net exports. Lower interest rates have a direct effect on consumers' expenditure and investment and also have a powerful effect on the RPI, which eventually has an effect on the increase in earnings. These interest rate effects in large part offset those of higher personal taxes on earnings, through the 'retention ratio', and on consumers' expenditure, through lower RPDI.

The medium term prospect with a 'better world' : Cases B(i) and B(ii)

10. The purpose of the 'better world' case is to illustrate prospects on the basis of a possible - but not in our opinion central - alternative view of how the economy has worked and/or will work in the future. It is not therefore simply an optimistic variant, and as will be seen has very little effect on output in the early part of the period.

11. The main differences between the main and 'better world' cases are

- (a) a stronger effect from interest rates to expenditure;
- (b) a stronger short run effect from unemployment to wage inflation (the coefficient is twice the value used in A(i) and (ii));
- (c) an allowance for the effect of past and announced future increases in £M3 on price expectations of those involved in wage bargaining;

- (d) a gradual increase in the annual rate of growth of underlying productivity (the increase begins in 1981 and is 1½ per cent per annum by 1983);
- (e) some improvement, consistent with (d), in non-price competitiveness of traded goods.

The improvement in productivity growth in (d) is large in relation to the historical rate of productivity growth. (Table VII sets out the productivity assumptions.)

12. Changes (a)-(e) on their own produced a sharp reduction in the rate of inflation over the period. Earnings decelerated more than prices and real take home pay fell even more than in the main case. GDP fell more in the early years and rose more quickly at the end of the period. To reduce these effects there are in Case B(i) and (ii) in addition to those changes set out in the previous paragraph,

- (f) in 1982 and 1983 some increase in the level of nominal earnings and a small reduction in prices: these improve the prospect for real take home pay and prevent earnings growth (temporarily) falling below monetary growth.
- (g) some small addition to net exports in 1980 and 1981.

(g) partly lessens one consequence of the 'better world' assumptions, (a)-(e), namely that the cycle generated by a progressive tightening of fiscal and monetary policy is more pronounced than in the main case. Tables IV, V & VI show the economic prospect with all the adjustments ((a)-(g)). The rate of price inflation comes down to 7 per cent in 1983. Growth in GDP is significantly higher than in the main case in 1982 and 1983. To achieve the target PSBR (as in Case B(ii)) the basic rate of tax still has to rise in the early years though by less than in Case A(ii) Only in 1983-84 is the basic rate lower than at present.

13. One feature of a planned reduction in inflation brought about by tighter fiscal and monetary policy is that it works primarily through the labour market. The adjustments in (g) above and the higher exchange rate than in Case A help to reduce the rate of price inflation independently of the path of earnings. In spite of these adjustments earnings



TABLE IV : CASE B(1) - THE BETTER WORLD

Percentage changes on a year earlier unless otherwise stated.

	1978	1979	1980	1981	1982	1983	Annual Average 1978-83
<u>Activity</u>							
GDP	2.6	1.3	-3.4	-1.7	1.3	3.0	0.1
Manufacturing Output	0.4	0.6	-6.9	-4.2	0.0	2.4	-1.7
Unemployment (%) (narrow)	5.6	5.3	6.4	8.8	10.4	10.7	7.9
<u>Prices &amp; Costs</u>							
Average Earnings	13.8	15.0	16.9	11.1	7.2	5.3	11.0
RPI	8.3	13.5	17.4	13.1	8.8	6.9	11.9
Real take-home pay	6.4	3.2	-0.7	-1.8	-1.1	-1.2	-0.3
<u>Balance of Payments &amp; Exchange Rate</u>							
Effective Exchange Rate	63.0	67.5	63.8	63.4	61.8	61.0	63.4
Labour Cost Competitiveness	93.1	106.1	106.7	108.5	105.0	100.8	103.4
Current Balance (£bn)	1.0	-2.9	-1.3	2.3	2.0	1.6	0.5
<u>Borrowing Requirement &amp; Financial Forecast (financial years)</u>							
PSBR (£bn)	9.3	8.6	10.0	12.1	10.4	6.6	9.5
as % of GDP at market prices	5.6	4.5	4.6	5.0	3.9	2.3	4.3
£M3	11.5	11.0	8.7	8.5	8.0	7.0	8.6
LA 3 month interest rate (%)	10.7	13.6	14.7	14.5	12.8	10.4	12.8
20 year gilt rate (%)	12.9	12.7	14.5	14.2	12.7	10.4	12.9

TABLE V : CASE B(ii) PSBR TARGET ACHIEVED THROUGH CHANGES TO PERSONAL TAXES IN 'RESTRICTIONED' WORKING

Percentage changes on a year earlier unless otherwise stated.

	1978	1979	1980	1981	1982	1983	Annual Average 1978-83
<u>Activity</u>							
GDP	2.6	1.3	-3.5	-1.9	1.3	3.5	0.1
Manufacturing Output	0.4	0.6	-7.0	-4.5	-0.1	3.0	-1.6
Unemployment (%) (narrow)	5.6	5.3	6.4	8.9	10.5	10.8	7.9
<u>Prices &amp; Costs</u>							
Average Earnings	13.8	15.0	16.9	11.0	7.0	5.0	10.9
RPI	8.3	13.5	17.4	12.9	8.4	6.7	11.7
Real take-home pay	6.4	3.2	-0.7	-1.8	-1.0	-1.2	-0.3
<u>Balance of Payments &amp; Exchange Rate</u>							
Effective Exchange Rate	63.0	67.5	63.7	63.2	62.1	61.3	63.5
Labour Cost Competitiveness	93.1	106.1	106.5	108.1	105.2	100.7	103.3
Current Balance (£bn)	1.0	-2.9	-1.1	3.1	3.3	2.0	0.9
<u>Borrowing Requirement &amp; Financial Forecast (financial years)</u>							
PSBR (£bn)	9.3	8.6	8.7	8.4	7.9	7.2	8.4
as % of GDP at market prices	5.6	4.4	4.0	3.5	3.0	2.5	3.8
£M3	11.5	11.0	8.7	8.5	8.0	7.0	8.6
LA 3 month interest rate (%)	10.7	13.6	14.3	13.1	11.5	9.7	12.1
30 year gilt rate (%)	12.9	12.7	14.0	12.8	11.4	9.7	12.3

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TABLE VI : TAX CHANGES TO MEET PSBR TARGET IN CASE B(ii)

	PSBR <i>///</i> RATIO IN CASE B(i)	TARGET PSBR RATIO	EX ANTE CHANGES IN TAXES TO ACHIEVE TARGET PSBR		
			£m	£m at 1979(4) prices <i>/</i>	pence on the basic rate <i>##</i>
1980-81	4.6	4.0	1262	1109	2.3
1981-82	5.0	3.5	3574	2827	5.8
1982-83	3.9	3.0	1903	1398	2.9
1983-84	2.3	2.5	-2121	-1470	-3.0

*/* Current price tax changes deflated by the consumers' expenditure deflator.

*##* Assumes no accompanying changes to either higher rates or bands; these estimates are therefore largely illustrative.

*///* Ratio of PSBR to GDP at market prices.

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TABLE VII PRODUCTIVITY & PRODUCTIVE POTENTIAL (All figures % pa, rounded to nearest  $\frac{1}{2}$ %)

	1975	1976	1977	1978	1979	1980	1981	1982	1983
Recorded output per head									
(1) Manufacturing	- 2 $\frac{1}{2}$	5 $\frac{1}{4}$	3 $\frac{1}{2}$	1	1 $\frac{1}{2}$	-	-	-	-
(2) Non-manufacturing	2	1 $\frac{1}{2}$	1 $\frac{1}{2}$	3	-	-	-	-	-
(3) Whole economy (excl. N/Sea)	- 1 $\frac{1}{2}$	3	1 $\frac{1}{2}$	1 $\frac{1}{2}$	- 1 $\frac{1}{2}$	-	-	-	-
Productive Potential									
(i) Labour force	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1	1 $\frac{1}{4}$	1 $\frac{1}{4}$	1	1	1 $\frac{1}{2}$
(ii) Underlying productivity <sup>^</sup> (adjusted for cyclical effects)									
(1) Manufacturing	3 $\frac{1}{4}$	2 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$
(2) private non-manufacturing	2 $\frac{1}{2}$	1 $\frac{1}{2}$	1	1	1	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	0-1	0-1 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$
(3) Whole economy excl. N/sea oil	2 $\frac{1}{4}$	1 $\frac{1}{2}$	1	1	1	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	0-1	0-1 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$
(iii) Contribution of N/Sea oil and gas	0	1 $\frac{1}{2}$	1	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
(iv) Productive Potential	2 $\frac{1}{2}$	2	2 $\frac{1}{2}$	2 $\frac{1}{4}$	2 $\frac{1}{4}$	1 $\frac{1}{2}$ -1 $\frac{1}{4}$	1 $\frac{1}{2}$ -2 $\frac{1}{4}$	1 $\frac{1}{2}$ -3.0	1 $\frac{1}{2}$ -3

<sup>^</sup> For the future trend productivity growth is given as a range, reflecting the difference in assumption between Cases A and B.

growth still falls more than price inflation as a result of the powerful employment effect and with price expectations partly based on monetary growth. The prospect for real take home pay is therefore little different from Case A.

14. Unless there is in Case B scope for (i) a much higher exchange rate (and therefore worse competitiveness), which we do not think plausible, (ii) some further downward adjustment to prices (as in (f) above), or (iii) significant cuts in personal taxes, real take home pay is bound to fall. The prospect for taxes depends critically on the growth of GDF. Just assuming a more monetarist economy - as in assumptions (a)-(c) of the 'better world' - is not itself sufficient to generate a better prospect for tax cuts. The most powerful way in which this could be done would be to assume an even better trade performance than is in the 'better world' case.

15. Table VIII summarises the differences between the two PSBR constrained cases, A(ii) and B(ii).

TABLE VIII : A comparison of the main and better world cases with the PSBR constrained (annual growth rates (%) unless specified).

	GDP		RPI		Average earnings		Changes to the existing basic rate of income tax (pence per pound)	
	1978-1983	1983	1978-1983	1987	1978-1983	1983	1980-81 to 1983-4 (average)	1983-4
Main case (A(ii))	-0.7	1.1	13.7	10.2	12.9	8.5	+ 4p	+ 2½p
Better world (B(ii))	0.1	3.5	11.7	6.7	10.9	5.0	+ 2p	- 3p