

**Options for 1997**  
**The Green Budget**

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# 1 Summary

The Budget this November will be the last major political set piece before the election. The economy has been growing for four years, and public sector borrowing is falling, but relatively slowly. We expect the Chancellor to produce some reductions in taxation, but to fund these by cutting planned public spending. The public spending plans for the future are now very tight; if they can be met, the fiscal stance seems broadly appropriate, but meeting them will require tough decisions.

## *Economic Prospects*

The prospect for both the UK and much of the rest of the world is stronger growth in the next 12 months than in the past year. The US, in particular, should experience continued strong growth, while Europe is expected to gather momentum. A key reason for this faster growth is the marked easing in global monetary conditions. A tightening in fiscal policy in most major economies will somewhat offset the looser monetary policy, but should still leave the stance of overall policy supportive of economic activity.

The UK economy has grown at slightly below trend for the last year and the consensus forecast for GDP in 1996 is now down to 2.2 per cent. But there are many signs that the period of below-trend growth is over. Business optimism and vacancies have risen strongly this year. The stock adjustment is proceeding apace and all the fundamentals for consumer spending are strongly positive. The Goldman Sachs forecast is for GDP growth to rebound in 1997 to 3.4 per cent.

Underlying inflation has remained broadly stable this year and, since mid-1995, the subdued level of economic activity has meant an easing of inflation pressures. On the basis of the historic relationship between producer prices and retail prices, falls in producer price inflation over the past year should feed through into retail price inflation over the next year. Pressure on inflation from wages is subdued, and the behaviour of sterling has also helped moderate inflation pressures. On Goldman Sachs forecasts, underlying inflation will fall below 2½ per cent during the first half of 1997.

How quickly inflation pressures develop as the economy grows above trend depends in large part on how much slack there is in the economy. This will begin to be taken up quite quickly over the next year and we expect there to be a case for tightening monetary policy, with base rates rising to at least 6½ per cent during 1997, in order to slow the economy to a more sustainable rate in 1998.

## *Setting Appropriate Fiscal Policy*

On several different definitions, the appropriate objective for the structural budget deficit — i.e. the budget deficit when the economy is at normal capacity working — should be around 1–2.5 per cent of GDP. This would ensure that the debt/GDP ratio is stabilised over the medium term, and that the golden rule of public finance is observed. An out-turn at the bottom end of the 1–2.5 per cent range would also be in line with the central fiscal objective in the proposed Stability Pact for members of the European Monetary Union, a pact that is likely to supersede the 3

per cent limit on budget deficits contained in the Maastricht Treaty once monetary union is under way. Even if the UK remains outside the monetary union, it is likely that a future government would feel uncomfortable with a medium-term target for the public sector borrowing requirement (PSBR) that is above the central objective in the Stability Pact.

The key question is therefore as follows: will the budget deficit as a percentage of GDP have declined to the lower end of the 1–2.5 per cent range by the time the economy is next on trend? The answer to this depends on two major factors. The first concerns where the level of GDP is now relative to its long-term trend (i.e. what is the output gap in the economy?). The second concerns the future rate of growth of public expenditure. Obviously, the larger the present level of the output gap, and the lower the future rates of growth of public spending, the more likely it is that the budget deficit will have fallen to 1–2.5 per cent of GDP by the time the economy next achieves normal capacity working.

On our best estimates, GDP is at present some 0–3 per cent below normal capacity working. If the lower end of this range turns out to be accurate, then fiscal policy clearly needs to be tightened. But if the higher end of the range turns out to be accurate, then GDP is unlikely to return to trend until 1999/2000 at the earliest. On the central economic forecasts in this publication, the PSBR will be entirely eliminated by that year, leaving the government finances in a broadly appropriate condition. However, if public expenditure restraint cannot be delivered as planned, then it is less clear that the current setting for tax policy will produce an appropriate out-turn for the budget deficit over the medium term, even if the output gap turns out to be favourable.

### ***Public Finances and the 1997 Budget***

Our current forecast for the PSBR in 1996/97 is £26.2 billion, 3.5 per cent of GDP. This is considerably greater than the forecast made in the last Budget, but a little less than the amended forecast published in the Summer Economic Forecast in July 1996. The reductions in revenue principally result from lower-than-expected real growth and inflation. Once again, we expect to see the nominal spending plans for 1996/97 met, which implies higher-than-planned real spending.

For 1997/98, we expect a PSBR of £21.2 billion on the assumption of no policy changes. This is £6.2 billion higher than the forecast in the 1995 Financial Statement and Budget Report (FSBR). Of this amount, £5 billion arises from lower tax receipts, due to lower-than-expected nominal GDP growth. Lower inflation is reflected in a reduction of £0.5 billion in the control total relative to the 1995 FSBR, and the other changes are accounted for by increases in debt interest, the borrowing requirement of public corporations and other accounting adjustments.

Looking to the medium term, we show that if the real growth in public spending is limited to that planned in the November 1995 Budget from 1997/98, the PSBR would fall to zero around 1999/2000. But with public spending growing in line with the long-run trend growth of the economy of 2.25 per cent, the PSBR would still be 1.1 per cent of GDP in 1999/2000.

Our expectation for November is that we will see tax cuts of around £3 billion, funded by reductions in planned spending of the same amount. This would still leave the real level of public expenditure in 1997/98 slightly higher than that planned last November.

### *Tax Measures for November*

Despite the fact that there are many parts of the tax system in far more need of reform than income tax, there seems little doubt that there will be income tax cuts in the Budget. The main choices for the Chancellor seem to be cutting the basic rate, raising allowances or widening the lower-rate band. For £3 billion, the basic rate can be cut by 1.5p, the personal allowance raised by £450 or the lower-rate band extended by £4,250. These measures hardly help the poorest 30 per cent of the population.

If the Chancellor wants to go further than this, he will need to raise some revenue. One good candidate would be profit-related pay (PRP). The cost of the tax relief on this has grown rapidly, to an estimated £1.5 billion. It is hard to defend, and clearly not achieving its stated objectives. It would be better if it had never been introduced, but it is now certainly time to begin its orderly removal.

On excise duties, we are likely to see little increase in alcohol taxes, because of fears about cross-border shopping. We may see some restructuring of fuel duties, possibly increasing the relative burden on diesel and cutting the taxation of compressed natural gas (CNG) and liquid petroleum gas (LPG).

We expect little change in the taxation of companies, or in capital gains tax (CGT), despite the Prime Minister's desire to abolish CGT, but there must be some possibility of a further reduction in the burden of inheritance tax.

### *Public Spending*

The key issue for medium-term public finances is whether a sustained drop in the ratio of public spending to GDP is feasible. A decline in the ratio is not entirely dependent on the strict observance of the government's spending plans. The cyclical position of the economy is also important. Provided output is below trend, the ratio would decline as the output gap is eliminated, even if real government spending is growing in line with the long-term trend growth in real GDP of 2¼ per cent a year. If the output gap is as high as 3 per cent, the cycle would be responsible for reducing the ratio (and the PSBR) by up to 1½ per cent of GDP.

Besides the cyclical drop in the ratio of public spending to GDP, there are two potential sources of upward pressure on spending — those areas that have been squeezed hardest in the past few years, and pressures to increase spending on front-line services. On the first of these, there seem to be no immediate pressures for a sharp rebound in spending. Public sector pay rises have broadly kept pace with the private sector. Cuts in public investment will be met partly by additional spending under the Private Finance Initiative, although longer-term upward pressures may exist. Local authority expenditure is constrained by the highly geared impact that increases in spending have on council tax bills.

The control of public spending depends ultimately on whether expenditure in the three largest areas — social security, health and education — can be contained. These areas

now account for 60 per cent of overall spending, up from 50 per cent in 1978/79. The government has taken steps to limit the growth of social security; linking the uprating of benefits to prices rather than earnings should be sufficient to stabilise the share of social security in GDP, even if the number of claimants continues to rise. In the process, the government has effectively begun the privatisation of future pension provision. Similar choices will need to be made in health and education. These are classic 'superior' goods — they have an income elasticity greater than one: as individuals and countries grow richer, they seek to spend a higher proportion of total income on retirement, health care and education. The fundamental issue is how the government's objective of achieving a declining share of spending in GDP, or even a stable one, can be squared with maintaining the provision of these front-line services at a level and standard that the public expects or needs. These are choices that no political party has yet faced up to.

### ***Public Investment and the Private Finance Initiative***

Part of the control in public expenditure has been achieved by cuts in public investment. Between 1992/93 and 1996/97, net public investment is planned to decline from 2.3 per cent of GDP to 1.2 per cent of GDP, and to 0.8 per cent of GDP by the end of the decade. For a number of years, public investment has been running at very low levels, particularly compared with the 1960s and 1970s, and an obvious concern is whether this will lead to a significant shortfall in social infrastructure creation.

One solution to this could be a pick-up in the number of projects undertaken under the Private Finance Initiative (PFI) in which the government purchases public services from privately owned capital. Whilst it is impossible to know what public investment would have been in the absence of the PFI, it seems clear that the PFI is being used to substitute privately financed assets for publicly financed assets. Cuts in public investment plans have been greatest in those departments that have been most successful in attracting private finance. The transport budget, for instance, is set to shrink by 30 per cent between 1994/95 and 1996/97.

If PFI capital spending comes close to making up for reductions in public investment, there will be less need for concern over any shortfall in social infrastructure creation. But there is a danger that the PFI might lead to an inappropriate mix of capital spending projects. If many more capital projects than are currently planned take place under the PFI, government departments will have to take care not to burden themselves with unsustainable long-term public spending commitments.

### ***Corporate Tax Issues***

UK corporation tax receipts have grown in line with net company profits. Both in Europe and North America, corporate tax receipts have been stable as a share of GDP. As yet, there is little sign of any collapse in the corporate tax base.

Taxes on company profits account for a similar share of total tax receipts in the UK to that in other G7 countries. Suggestions that UK companies pay a low share of total tax are based on aggregating corporate taxes with employers' social security contributions, but this aggregation makes little sense. The incidence of

employers' social security contributions is no different from that of other taxes on employment income.

Corporation tax increases the cost of capital for investment and therefore reduces the level of investment. The share of GDP allocated to investment is lower in the UK than in other G7 economies. R&D spending growth in the UK has also fallen behind that in all other G7 countries. Should the next Chancellor seek to raise UK investment or R&D, corporate tax reform is one policy that could be used.

The UK imputation system effectively repays advance corporation tax (ACT) to tax-exempt shareholders on profits paid out as dividends. The rate of ACT has fallen from 33 per cent in 1979 to 20 per cent today, and is now set at the starting rate of income tax rather than the basic rate. Reducing the ACT rate raises some revenue for the government, and would be a tempting method of increasing revenue for a Chancellor in the next Parliament.

The Labour Party is committed to imposing a one-off windfall levy on the privatised utility companies. The main arguments for this levy are that soft regulation has allowed these firms to earn excessive profits and/or that these firms were sold off too cheaply. Unfortunately, the shareholders affected by a windfall levy are not the same set of shareholders who benefited from these windfall gains in the past. There is also considerable uncertainty about which firms would be subject to the levy and how their liability would be calculated. We show that these considerations may make a big difference to the windfall levy liability of particular firms and sectors.

### *Longer-Term Issues in Direct Taxation*

We show that any attempt to assist those on low incomes through income tax reduction is doomed to fail, since those on low incomes are typically not income tax payers. Aiming to help the poor through tax cuts is, anyway, likely to be less effective than changing social security arrangements, but if tax cuts are the preferred route, cutting a tax paid by the poor, such as VAT, is much more effective than cutting income tax.

Government in the medium term may wish to raise additional tax revenue without increasing tax rates, and we show that substantial amounts could be raised from restricting the value of allowances and abolishing mortgage interest tax relief and the married couple's allowance. We note that the revenue raised from increasing the top income tax rate to 50 per cent on incomes above £100,000 would be modest, even before considering the possibility of tax avoidance. We also examine the scope for raising revenue from reform of National Insurance contributions from the self-employed.

### *Indirect Taxation*

While the focus of much debate in the coming months will be direct taxation, there are several possible reforms to indirect taxation that we consider, including Labour's plan to reduce the rate of VAT on fuel.

Distributional considerations always feature highly in any debate about indirect tax reforms; we look at the distributional impact of the tax on the National Lottery. The fact that spending on the Lottery takes up a disproportionate part of the total

weekly spending of poor households may be a cause for concern for those worried about distributional issues. We also consider a second area of gambling which has grown rapidly in recent years — spread betting — and suggest it could be taxed either under betting and gaming duty on the winnings or under the existing capital gains tax regime.

### ***Environmental Taxation***

This year, we review the debate over the possibility of obtaining a double dividend from environmental taxes by using the revenue collected to lower an existing distortionary tax. In theory, the scope for a double dividend should be limited — ignoring environmental gains, there is no reason to expect an environmental tax to be less distortionary than the tax it replaces. Thus the prospect of a double dividend is restricted to the case where the introduction of a new tax provides the impetus to reform an already inefficient tax system.

We also discuss how taxes could be used to tackle one of today's principal environmental concerns, that of carbon dioxide emissions and global warming. The government's current policy of applying a VAT rate of 8 per cent on domestic fuels fails to distinguish between fuels according to their carbon content and provides no incentive to industry to reduce its use of carbon-intensive energy.

### ***Minimum Wages***

'Half median earnings' can mean any minimum wage between £3 and £4.26 an hour, depending on the different data sources and sampling definitions used. We look at the numbers directly affected by four levels between £3.00 and £4.50 an hour. As expected, most of those workers who would be affected would be women, although many men would also see their wages rise. Almost 10 per cent of workers would be covered by a floor of £3.00 an hour and 30 per cent by one of £4.50. There is significant movement between low pay and unemployment and between low pay and better-paid jobs, so the total number of people affected by a minimum wage over a four-year period would be almost twice the number affected at any one point in time.

A low (£3 an hour) minimum would be better targeted at the bottom end of the benefit unit income distribution. Richer benefit units would gain more than the poor from any increase in the minimum above this, as more secondary earners in two-earner families are affected. Many of the poorest employees who would gain from a minimum wage are young people living with their parents, who may be helping them financially. Taking account of this possibility by looking at the effect on the distribution of household income, we find that it is richer households that gain most, even from a very low minimum wage.

A fall in expenditure and the numbers receiving in-work social security benefits might occur after the introduction of a minimum wage. But the fall would be very small because many employees affected by a minimum wage either would not be entitled to in-work benefits or would not be made sufficiently better off by a minimum wage to float them off benefit.

### ***Education and Training***

While all of the political parties agree that there needs to be increased investment in education and training, there is less agreement on the policies needed to achieve this aim. We argue that there are three main areas where the government might fruitfully consider policy changes. The first and most important area is to improve full-time education participation by young people. We argue that the best way of increasing the incentives of the young to stay in education past the minimum school-leaving age is to provide direct income support *to the child* from the age of 16 until they complete their studies. A relatively cheap education allowance scheme could be introduced by reforming current child benefit arrangements for children aged 16 years and over. The second area where reform could improve training incentives is through improvements in the operation of the current tax exemption relating to qualification training course fees. Finally, we argue that there is an urgent need to re-examine government training programmes for the long-term unemployed. In particular, more emphasis should be given to work-based training schemes.

### ***Central and Local Government Relations***

Whilst major reforms to central/local government relations are unlikely this November, a Labour victory at the next general election could lead to the abolition of capping, the return of non-domestic rates to local control and a devolution of powers to a Scottish Parliament, Welsh Assembly and regional chambers in England.

The abolition of capping would increase local choice but reduce central control over public spending. Fears of a large 'hike' in local spending may be exaggerated since even modest spending increases would generate large percentage rises in council tax bills. But the present reliance on a single local tax reduces local autonomy and makes council tax bills highly sensitive to changes in grant. Whilst the return of locally-varying non-domestic rates might reduce local accountability and distort the pattern of economic activity, this would be the administratively simplest method of enlarging the local tax base.

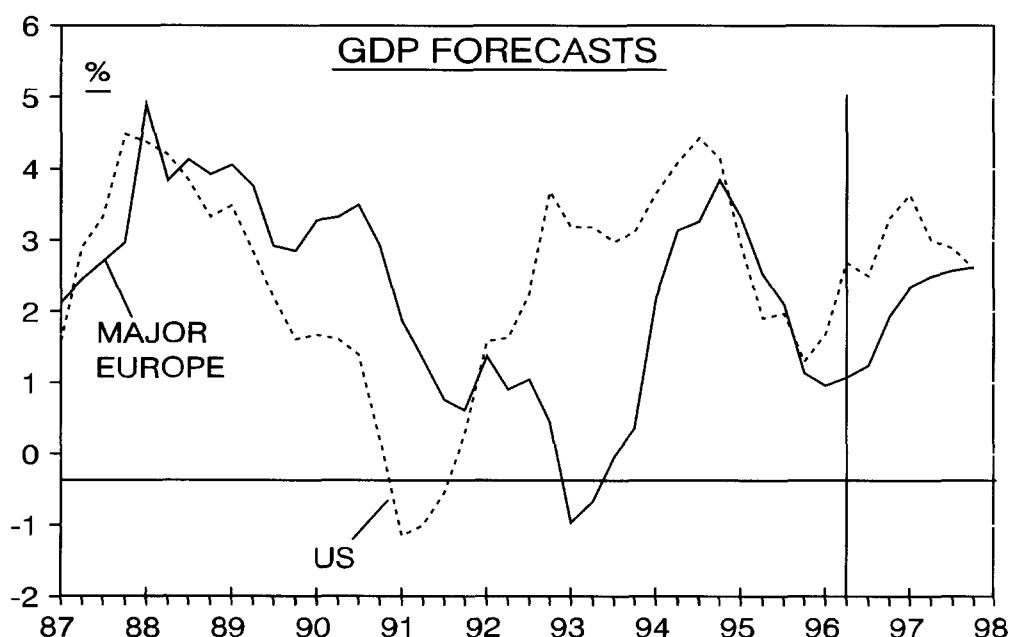
Devolved regional government could make the pattern of spending more responsive to local needs and preferences. Whilst regional imbalances in the pattern of spending and tax receipts are likely to be made more explicit, fiscal transfers are likely to continue to exist between devolved regional governments, as they do between local authorities at present.

## 2 The Economic Forecast

### 2.1 The World Economy

Global economic activity has gradually picked up this year as the depressing influence of excess stockholdings has eased. Real GDP growth in the OECD as a whole was 2.3 per cent in the year to 1996Q2, up from 1.6 per cent at the end of 1995. The main reason for this was stronger activity in the US and Japan. During 1995, the US economy grew by 2.0 per cent with stockbuilding reducing growth. This influence ended early this year and industrial production has picked up on the back of stronger fixed investment and buoyant consumer spending. In the first two quarters of 1996, US GDP rose 0.6 per cent and 1.1 per cent respectively, resulting in a doubling in the annual growth rate compared with the end of 1995 to 2.7 per cent. In Japan, growth has picked up after stagnating during 1994 and 1995. The recovery in activity in Japan reflects the sharp easing in monetary and fiscal policies over the past two years. There are fewer signs of recovery in Europe. Across continental Europe, economic activity has continued to be constrained by an overhang of stocks in the corporate sector, and business confidence is still declining. Stockbuilding has been a drag on growth throughout this year, and in the year to 1996Q2, real GDP in continental Europe was up just 1.0 per cent. However, recent data show signs that activity is stabilising and there are indications of stronger activity in some countries, particularly Germany.

Figure 2.1





The recovery in global activity this year should strengthen into 1997, with the US continuing to enjoy strong growth and Europe expected to gather momentum. A key reason for expecting faster growth is that global monetary conditions have eased markedly and are now quite loose. Real short-term interest rates have fallen sharply and are low by historic standards. Real bond yields have also declined and are in line with their historic average across industrial countries. Yield curves are very steep in many countries, which has historically been consistent with stronger growth. In addition, money supply growth in the developed economies has risen sharply. Over the next year, this easing in monetary conditions should ensure that the growth of economic activity does not falter.

**Table 2.1: Forecasts for the world economy**

(percentage change from previous year)	1995	1996	1997
<b>OECD real GDP</b>			
HMT	2.0	2.0	2.3
OECD	1.9	2.1	2.5
Goldman Sachs	2.0	2.3	2.5
<b>OECD consumer prices</b>			
HMT	2.3	2.3	2.5
OECD	3.2	2.7	2.4
Goldman Sachs	2.4	2.2	2.6
<b>UK export markets</b>			
HMT	9.8	6.5	7.5
OECD	9.8	6.5	7.5

Notes: HMT figures for GDP and inflation relate to G7 only. HMT figures for inflation relate to Q4. OECD inflation forecasts relate to consumers' expenditure deflators and exclude Turkey. HMT and OECD figures for UK export markets relate to manufactures only.

Sources: HMT — HM Treasury's Summer Economic Forecast, July 1996.

OECD — *Economic Outlook*, June 1996.

Goldman Sachs — *International Economics Analyst*, September 1996.

A tightening in fiscal policy in most major economies is likely to offset some of the loosening in monetary policy. Within the major economies, the stance of fiscal policy is set to tighten by around ½ a per cent of GDP over the next year. This is concentrated in continental Europe and in Japan where fiscal policy is set to tighten by 1 per cent of GDP. Within Europe, the tightening in fiscal policy reflects countries' attempts to reduce budget deficits in order to meet the Maastricht Treaty convergence criteria for qualification for European monetary union. In Japan, the tightening reflects a return to a more neutral fiscal policy following the deliberate easing in policy to boost the economy. Fiscal policy in the US is likely to remain neutral over the next year. There is a risk that looser monetary conditions will be insufficient to offset tight fiscal policy in some regions. This risk is greatest in continental Europe where, despite the easing in monetary policy, the stance of monetary policy is not unduly loose. Overall, though, the stance of economic policy

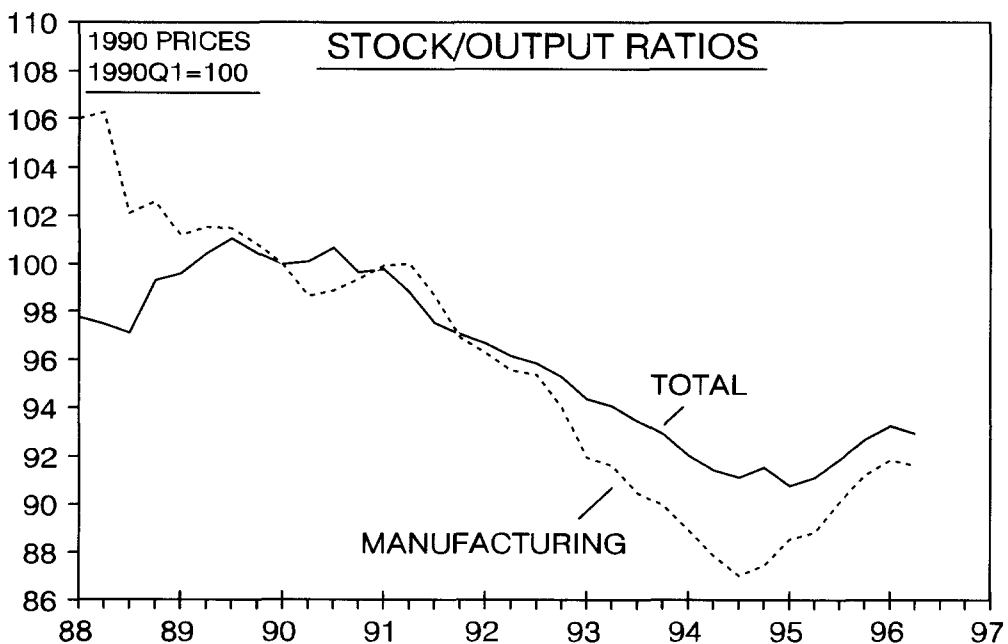
should be supportive of economic activity and the recovery should take firmer hold. The Goldman Sachs forecast shows GDP growth in the OECD rising from 2.0 per cent in 1995 to 2.3 per cent this year and further to 2.5 per cent in 1997. Forecasts by the Treasury and the OECD show a similar strengthening in growth over the next year.

Although global economic growth is expected to improve over the next year, inflation should remain moderate. On Goldman Sachs estimates, the level of GDP within the major G6 economies is just over 1 per cent below trend. This suggests that growth can pick up without a significant rise in inflation pressures. Consumer price inflation in the OECD was 2.4 per cent in 1995 and should remain in the range 2.0–2.5 per cent over the next year. Some upward pressure on inflation is likely in the US where the level of economic activity is already above trend.

## 2.2 Domestic Economy

The UK economy has grown at slightly below trend during the past year. In 1995, weak domestic demand curbed GDP growth, with a slowdown in consumers' expenditure growth and stagnant fixed investment both contributing. In addition, export growth eased a little in response to weaker overseas demand. The slowdown in demand in 1995 took many companies by surprise and led to an involuntary build-up of stocks, raising the ratio of stocks to GDP. During 1996, companies have tried to run down these stock levels in order to bring output more into line with demand. This has led companies to cut back production, leaving manufacturing output flat over the past year. There is evidence that the stock adjustment is now firmly underway. Final demand rose 1.4 per cent between 1996Q1 and Q2, but

Figure 2.2



GDP rose by only 0.5 per cent as a result of lower stockbuilding. In the first half of this year, GDP rose 2.2 per cent at an annual rate, compared with 2.0 per cent during 1995H2 and 2.5 per cent for 1995 as a whole.

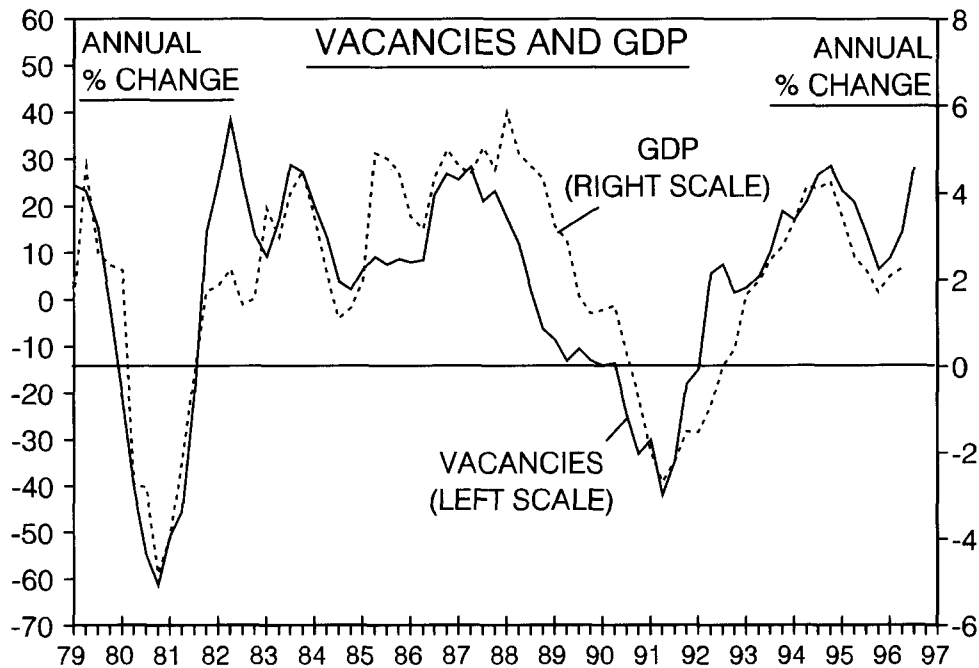
The need to reduce stocks has kept expectations of GDP growth subdued for 1996. At the end of last year, the City consensus for 1996 GDP growth as monitored by the Treasury was 2.7 per cent. This consensus has since fallen to 2.2 per cent.

As a corollary of weak economic activity, inflation expectations have remained moderate throughout this year. The City consensus for underlying inflation (retail prices excluding mortgages) in 1996Q4 was 3.1 per cent at the end of last year, declining to 2.6 per cent by September. Base rates have been cut on the back of weaker activity and declining inflation. Since last year's Budget, base rates have been cut from 6¾ per cent to 5¾ per cent in four stages. This easing in monetary policy has helped improve the prospects for economic activity. Stronger overseas activity should further help these prospects.

**Strengthening Demand**

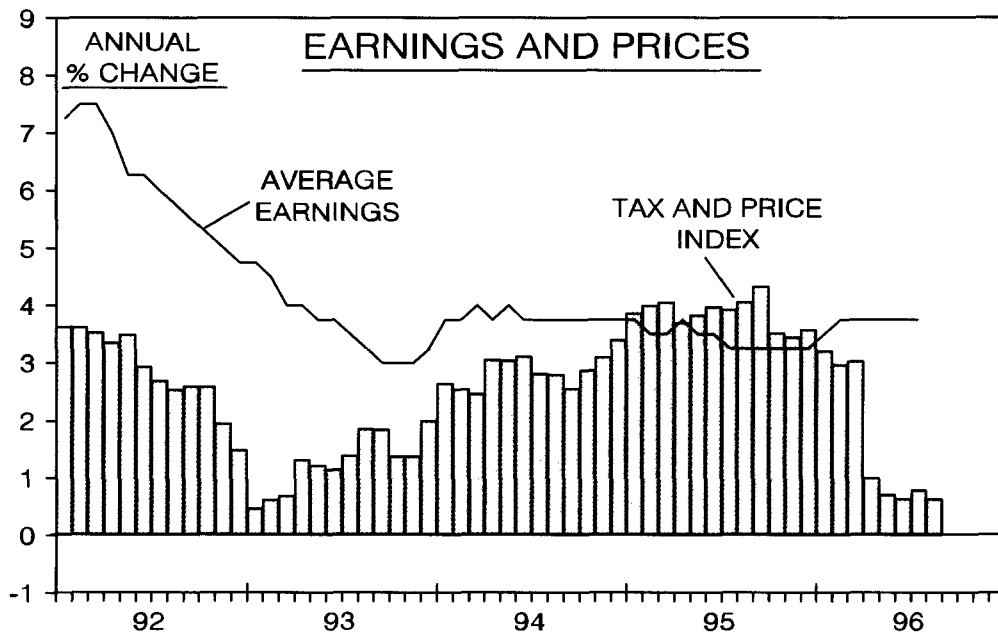
There are signs that the period of below-trend growth in economic activity is set to give way to stronger growth over the next year. In particular, business optimism and the level of vacancies have both picked up strongly since the end of last year. In the past, these have been good guides to turning-points in the growth of GDP. Strong growth in the main monetary aggregates and a steep yield curve provide further signs that activity should pick up over the next year.

Figure 2.3



The improved position of stocks is one reason to expect stronger GDP growth. A second reason is stronger consumer demand. During the second quarter, consumer spending rose 0.8 per cent and was 2.4 per cent higher than a year ago. There are several factors that are currently boosting consumer demand and these should continue to do so over the next year. First, real earnings growth has picked up significantly. Underlying earnings growth has remained stable in the range 3–4 per cent during the past year, yet headline inflation has declined from 3.2 per cent at the end of 1995 to 2.1 per cent in August. In addition, £3 billion of tax cuts came into effect in April. Each of these has boosted the real purchasing power of average earnings. The tax and price index, which calculates the level of earnings growth necessary to maintain stable real take-home pay after incorporating tax and mortgage rate changes, rose by only 0.6 per cent in the year to August. Deflating average earnings by the tax and price index, real take-home pay has increased by more than 3 per cent over the past year. High dividend payments and electricity rebates have also helped to boost real incomes, and real personal disposable income was up 3.3 per cent in the year to 1996Q2. On the Goldman Sachs forecasts, average earnings growth is likely to rise further over the next year and inflation is set to decline in the short term. Real earnings and disposable income should therefore remain strong.

Figure 2.4



Second, household spending power is being boosted by payouts arising from consolidation and structural changes in the financial services industry. Many of the payments are the consequence of the flotation of building societies which are currently owned by their deposit holders. The payments, in the form of cash or shares, are in return for the transfer of ownership from deposit holders to shareholders. These shares can be then be sold at the

discretion of the shareholder. Such transactions do not increase household wealth as the deposit holders technically already own the societies. This existing wealth is simply becoming more liquid. Most economic theories of consumer behaviour argue that households base their spending decisions on estimates of their long-term wealth. Moreover, these theories state that individuals only adjust their spending when there is an unexpected change in this estimate of their wealth. Therefore, in principle, households should already have incorporated the wealth into their spending patterns and the payouts should not affect consumer spending.

**Table 2.2: Demand prospects**

(annual percentage change, volume)	1995	1996	1997
<b>Private consumption</b>			
HMT		3.3	4.3
Goldman Sachs	2.0	2.9	3.6
Consensus		3.0	3.6
<b>Total fixed investment</b>			
HMT		3.0	5.5
Goldman Sachs	-0.1	3.1	4.3
Consensus		3.0	6.1
<b>Exports of goods and services</b>			
HMT		6.0	5.8
Goldman Sachs	7.2	5.9	4.8
Consensus		5.1	5.8
<b>Imports of goods and services</b>			
HMT		7.5	5.8
Goldman Sachs	3.9	5.9	4.3
Consensus		6.2	6.0
<b>Real GDP</b>			
HMT		2.5	3.3
Goldman Sachs	2.5	2.2	3.4
Consensus		2.2	3.3

Sources: HMT — as Table 2.1.

Goldman Sachs — *UK Economics Analyst*, October/November 1996.

Consensus — 'Forecast for the UK Economy', HM Treasury, September 1996.

There are several problems with this argument. First, in practice, many households may adjust their spending patterns in response to their actual income or their current liquid assets rather than to rational estimates of their long-run wealth. Second, many households are credit-constrained, unable to borrow against their wealth to raise their spending. The payouts would give these households a way of raising their current spending. Third, although individuals currently own shares in the building societies being floated, it is possible that they have not allowed for this wealth in their spending decisions, especially since these shareholdings represent wealth that could not be accessed. In contrast, the payouts to households can easily be realised

to finance spending. It is therefore likely that the boost to spending power from these payouts will at least partly find its way into higher spending. Fourth, it is entirely rational for consumers to diversify their wealth by purchasing additional consumer durables. In the National Accounts, however, this counts as consumer spending.

By the end of next year, the personal sector will have received a further £16 billion or so from building society flotations, with the largest single payment coming from the flotation of the Halifax building society in the first half of 1997. Although it is difficult to give a precise estimate of the effect of this on consumer spending, one can define ranges for the possible outcomes. One way is to appeal to previous flotations to see whether it is possible to deduce anything from these about the potential impact on consumer spending. The flotations of the Abbey National and the TSB provide examples of households receiving payouts from the flotation of financial service companies. After the flotations of Abbey National and the TSB, individuals sold 25–30 per cent of their shares within the first few months. If this pattern were repeated for the shares to be paid out over the next year, it would represent £4–4¾ billion — or 0.8–1.0 per cent on the level of consumer spending. This may represent an upper bound on the amount of the windfalls that feeds through into higher consumer spending. At the other extreme, one can assume that the payouts represent an increase in perceived wealth of households and calculate the impact from equations for consumer spending. Based on the Goldman Sachs equations for consumption, the windfall gains accruing to households may boost consumer spending by only 0.1 per cent. Although this range is wide, it suggests that consumer spending will get some boost from these windfalls over the next year.

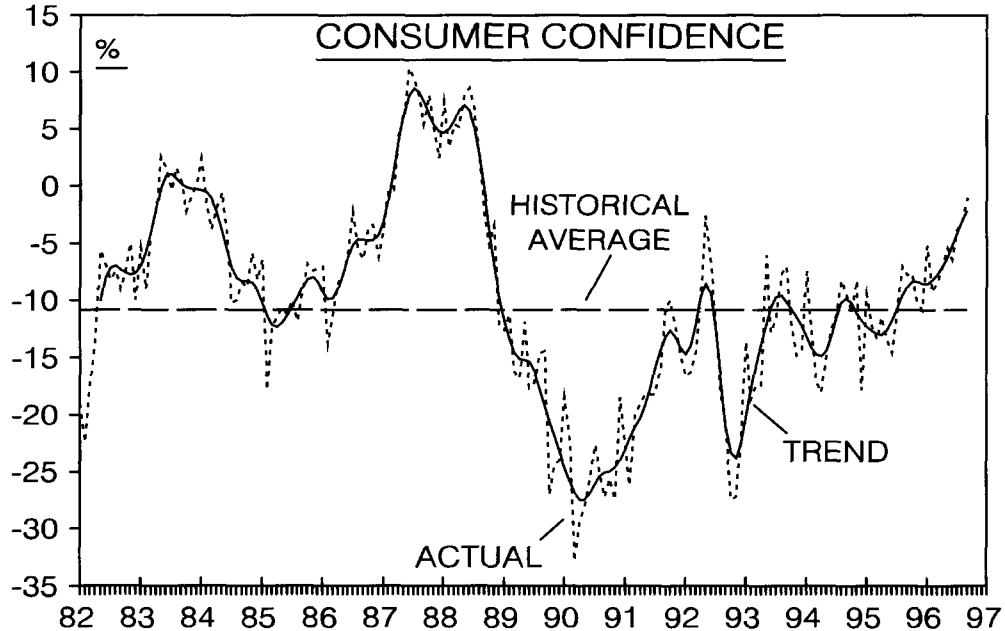
The continued improvement in the labour market provides a further stimulus to consumer demand. During the course of 1996, the claimant count of unemployment has fallen 125,100 and the unemployment rate has declined from 8 per cent at the end of last year to 7.5 per cent in August. The number of recorded vacancies has picked up sharply. In the 12 months to August, the number of vacancies rose 29 per cent. The level of recorded vacancies was 236,500 in August, significantly above the long-run average of 186,000.

A further boost to consumer demand could come from the housing market. The average mortgage rate has fallen around one percentage point over the past 12 months to the lowest level for 30 years. This has helped house prices to recover — up 5–6 per cent over the past year. There has been a strong rise in the number of mortgage commitments in recent months. In the year to the three months ending August, new mortgage commitments were up by one-third. Turnover has begun to pick up — the number of housing transactions was up just over 13 per cent in the year to August. Over the next year, the housing market should benefit further from low interest rates and rising real incomes. In turn, this should give a boost to consumer spending.

All of these factors have helped boost consumer confidence. The European Commission survey, conducted by GfK, shows that consumer confidence has improved steadily this year. Confidence amongst consumers is now

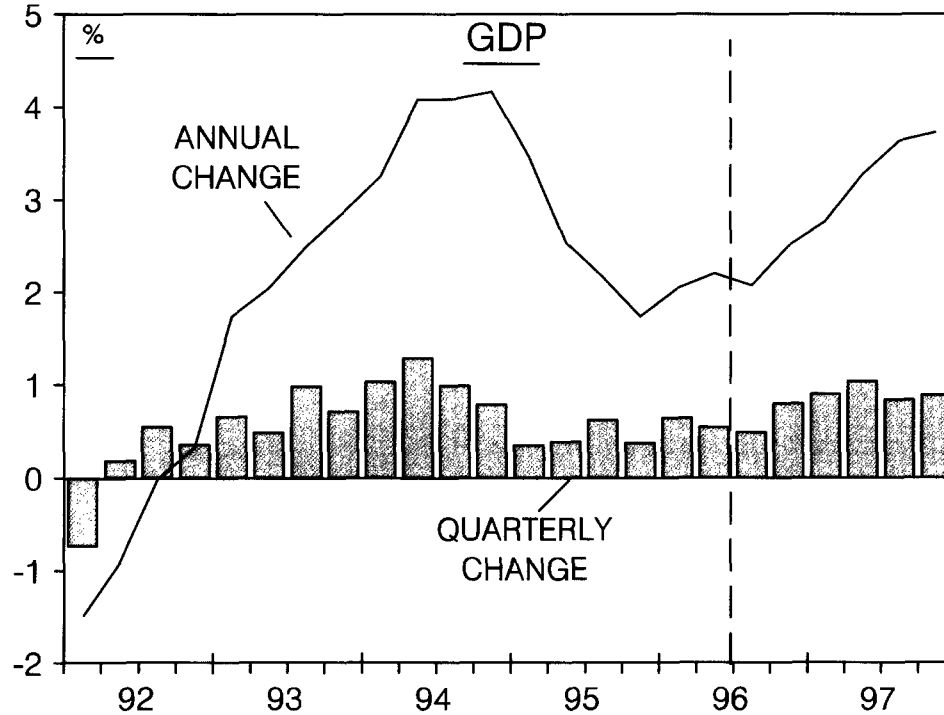
above its historical average and in September reached its highest level since August 1988. This could reinforce the above trends. Recent retail sales figures suggest that consumer spending will strengthen further. In the three months to August, retail sales volume increased at an annualised rate in excess of 6 per cent.

Figure 2.5



The Goldman Sachs forecast is for consumers' expenditure to grow by 2.9 per cent this year and 3.6 per cent in 1997. This is in line with the consensus forecast. The Treasury's Summer Economic Forecast was more optimistic, showing consumer spending rising 4¼ per cent in 1997 after growth of 3¼ per cent this year. Stronger consumer spending together with improving overseas demand should in turn lead to increased fixed investment. Fixed investment rose 3.2 per cent in the year to 1996Q2 following a slight decline in 1995. One factor that has restrained investment spending has been the weakness in manufacturing output over the past year. As this unwinds in coming months, investment spending should improve. For 1996 as a whole, the Treasury's Summer Economic Forecast shows fixed investment growth of 3 per cent, rising to 5½ per cent in 1997. Stronger final demand should lead to the resumption of above-trend GDP growth. The Goldman Sachs forecast is for GDP growth to pick up from 2¼ per cent in 1996 to almost 3½ per cent in 1997. This is close to the consensus forecast.

Figure 2.6



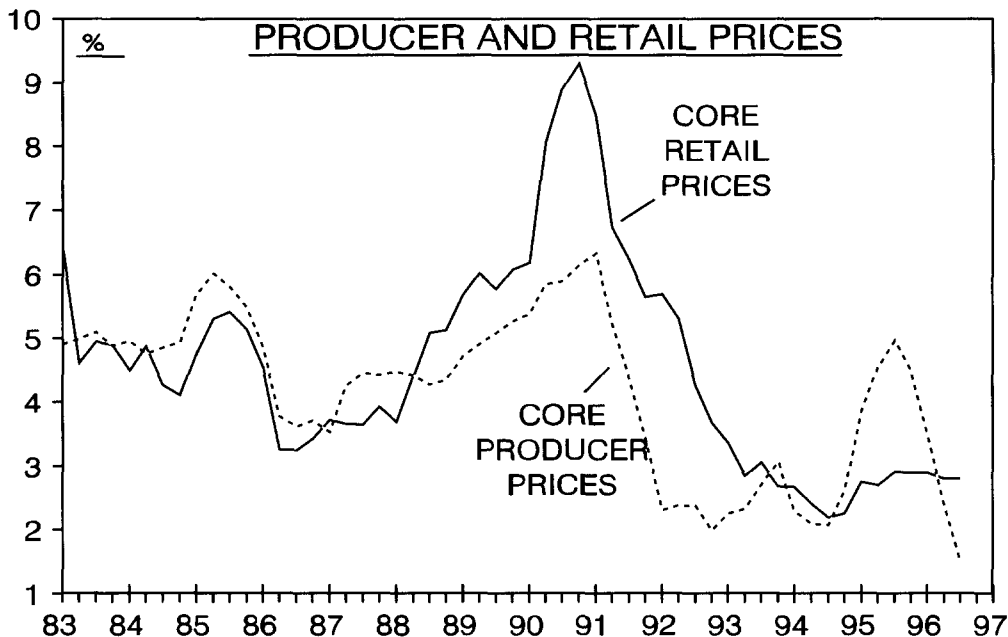
### *An Inflation Threat?*

The signs of stronger economic activity have increased speculation that the Chancellor may soon need to raise base rates to choke off inflation pressures. The Governor of the Bank of England opposed the last cut in base rates on 6 June and the August Bank of England Inflation Report said that the risks of the government missing its inflation target of '2½ per cent or less' for underlying inflation had increased. Stronger growth in the economy over the next year is the main risk to the inflation outlook.

Underlying inflation has remained broadly stable this year. Following the strong growth in economic activity during 1994, underlying inflation (retail prices excluding mortgages) reached a peak of 3.1 per cent in December 1995. Since then, it has declined a little to 2.8 per cent. In the short term, the prospects for inflation are promising. Since the middle of 1995, inflation pressures have eased as economic activity has remained subdued. This is particularly apparent in manufacturing. In the year to August, core producer output price inflation was just 1.6 per cent. This is down from a peak of 4.8 per cent in July 1995. It takes time for changes in producer price inflation to pass down the supply chain reaching retail prices. On the basis of the historic relationship between producer prices and retail prices, the fall in output price inflation should feed through into retail price inflation over the next year. Pressure on inflation from wages is subdued. As noted above, earnings growth has been stable in the range 3–4 per cent for a considerable time. Unit wage costs for the economy as a whole were up only 1 per cent year on year in the year to 1996Q2.



Figure 2.7



The behaviour of sterling has also helped moderate inflation pressures. On a trade-weighted basis, sterling fell 6 per cent during 1995. In the year to date, most of this depreciation has unwound. This rise in sterling has led to a sharp fall in import price inflation. Import price inflation has fallen from 11 per cent in August 1995 to  $-0.8$  per cent in July. Provided sterling does not begin to depreciate again in the short term, this improvement in import price inflation should help reduce retail price inflation in coming months. Together these trends suggest that the outlook for inflation over the next 12 months is encouraging. On the Goldman Sachs forecasts, underlying inflation will fall below  $2\frac{1}{2}$  per cent during the first half of 1997.

Table 2.3: Other key indicators

	1995Q4	1996Q4	1997Q2	1997Q4
<b>Price inflation (%)<sup>a</sup></b>				
HMT		2.5	—	2.3
Goldman Sachs	2.9	2.7	2.3	2.4
Consensus		2.6	—	3.0
	1995Q4	1996Q4	1997Q2	1997Q4
<b>Unemployment (million)</b>				
Goldman Sachs	2.5	2.08	2.01	1.94
Consensus		2.08	—	1.93
	1994	1995	1996	1997
<b>Current account (£ billion)</b>				
HMT	-2.4	-2.9	-3.5	-1.5
Goldman Sachs			0.0	-1.4
Consensus			-5.0	-7.2

<sup>a</sup>RPI excluding mortgage interest payments.

Sources: As Table 2.2.

The Bank of England's concerns about inflation relate to the longer term. If the UK economy grows by 3½ per cent in 1997, this will eat into any available slack in the economy. The impact of above-trend growth on inflation depends in part on how much slack there is, discussed in Chapter 3, but strong growth could begin to put upward pressure on inflation late in 1997 and particularly in 1998. Although this is still distant, changes in interest rates take a considerable time to affect the economy, and monetary policy decisions over the next year will need to be sensitive to these long-term risks. If growth during this period proves to be strong — in line with most forecasts — there would be a strong case for a tightening of monetary policy. On Goldman Sachs estimates, base rates will rise to 6½ per cent during 1997. This is expected to dampen growth in the economy sufficiently to keep inflation from rising too sharply. Provided monetary policy is tightened in this way, the economy should begin to slow down in late 1997, easing the build-up of inflation pressures. The current consensus expectation and the expectation in financial markets is for base rates to rise to around 7 per cent by the end of next year.

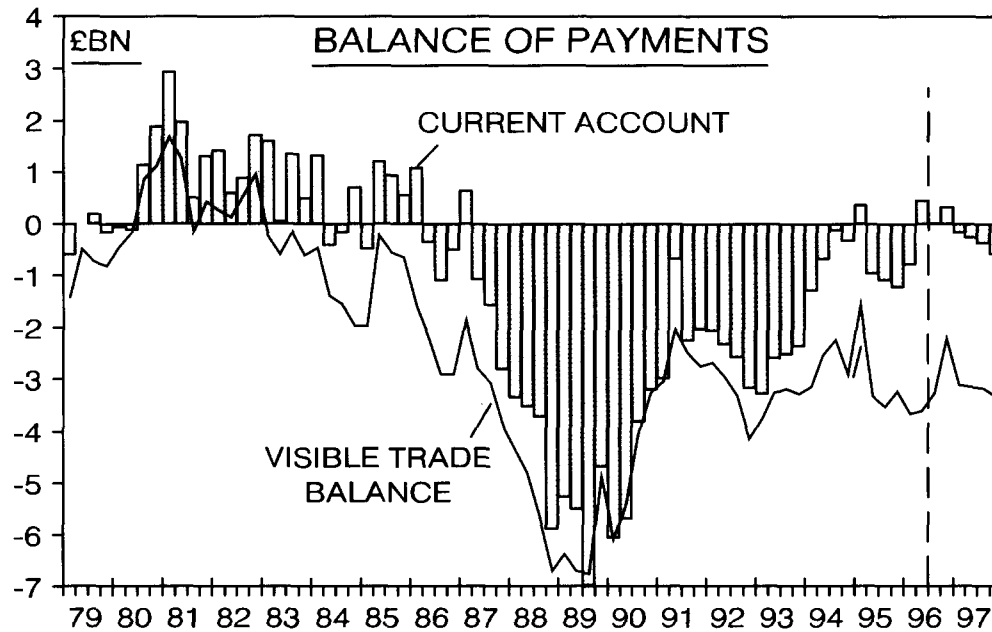
### *External Trade*

During 1995, the trade deficit was £11.6 billion (1.7 per cent of GDP), a slight deterioration compared with a £10.8 billion deficit in 1994. This deterioration was due to non-oil trade — the surplus on trade in oil increased from £3.9 billion in 1994 to £4.2 billion in 1995. An improved balance of trade in services and strong investment income more than offset the deterioration in the balance of trade in goods. However, an increase in the deficit on transfers of almost £2 billion — reflecting increased net payments by the UK government to the European Union — meant that the current account worsened slightly in 1995 compared with 1994. Overall, the current account deficit in 1995 was just £2.9 billion (0.4 per cent of GDP), up from £2.4 billion in 1994.

In the first half of this year, export growth has been buoyant. The volume of non-oil exports was up 10.1 per cent in the year to 1996Q2, above the 8.1 per cent growth in 1995 as a whole. Strong growth in exports has been offset by imports. Non-oil import volume growth has picked up from 4.8 per cent in 1995 to 9.4 per cent year on year in 1996Q2. During the first half of this year the trade deficit was £7.3 billion. This is above the levels recorded during 1995 but represents only a small deterioration from the second half of 1995 when the trade deficit was £6.7 billion. For the rest of this year, domestic demand is likely to keep imports buoyant and exports should be boosted by the recovery in overseas economies. These should broadly offset one another, preventing any significant deterioration in the balance of trade in goods. One factor that will boost the trade deficit this year is the ban on beef exports resulting from the 'mad cow' episode. Goldman Sachs estimates that this will lead to a small increase in the 1996 trade deficit to £12.7 billion. Within the current account, the surplus on trade in services has remained strong and net investment income has been very high this year. In addition, the deficit on transfers has eased slightly due to an increased rebate to the UK from the rest of the European Union. The current account has

therefore improved. During the first two quarters, the current account deficit was just £0.3 billion, and in the second quarter, the current account was in surplus. For 1996 as a whole, the current account is likely to remain close to balance.

Figure 2.8



According to the Treasury's Summer Economic Forecast, trade in UK export markets is set to grow 6.4 per cent in 1996 and 7.5 per cent in 1997. On the basis of the Goldman Sachs trade model, this would lead to growth in non-oil export volume of 7 per cent and 5 per cent in 1996 and 1997 respectively. This implies some slowdown in the high export growth so far this year. The same model suggests that the current rate of import growth is too high, given the weakness in demand in the UK economy over the past year. The Goldman Sachs trade model indicates that import growth will fall over the next six months before picking up during 1997. On current trends, there seems little reason to worry about the implications of high consumption growth in the next 12 to 18 months for imports and the balance of payments, particularly if export growth remains robust. The Goldman Sachs forecast shows a trade deficit for 1997 of £12.7 billion (1.7 per cent of GDP), unchanged from 1996, and a current account deficit of £1.4 billion. This is close to the figure of £1.5 billion in the Treasury's Summer Economic Forecast. The consensus forecast for the current account deficit in 1997 is £7.2 billion.

# 3 Setting Appropriate Fiscal Policy

This chapter will consider whether the current setting of fiscal policy in the UK is appropriate. First, we will consider what we mean by the term ‘appropriate’ and discuss the fiscal objectives of the current government, and the Labour opposition, in this light. Second, we will turn to the question of whether the current setting of tax policy, along with the latest plans for public expenditure, are likely to deliver out-turns for the budget deficit and the public sector debt ratio that are consistent with our definition of appropriate fiscal policy.

The conclusion will be as follows. On several different definitions, the appropriate objective for the structural budget deficit — i.e. the budget deficit when the economy is at normal capacity working — should be around 1–2.5 per cent of GDP. This would ensure that the debt/GDP ratio is stabilised over the medium term, and that the golden rule of public finance is observed. An out-turn at the bottom end of the 1–2.5 per cent range would also be in line with the central fiscal objective in the proposed Stability Pact for EMU members, a pact which is likely to supersede the 3 per cent limit on budget deficits contained in the Maastricht Treaty once monetary union is underway. Even if the UK remains outside the monetary union, it is likely that a future government would feel uncomfortable with a medium-term target for the PSBR that is above the central objective in the Stability Pact.

The key question is therefore as follows: will the budget deficit as a percentage of GDP have declined to the lower end of a 1–2.5 per cent range by the time the economy is next on trend? The answer to this depends on two major factors. The first concerns where the level of GDP is now relative to its long-term trend (i.e. what is the output gap in the economy?). The second concerns the future rate of growth of public expenditure. Obviously, the larger the present level of the output gap, and the lower the future rates of growth of public spending, the more likely it is that the budget deficit will have fallen to 1–2.5 per cent of GDP by the time the economy next achieves normal capacity working.

On our best estimates, GDP is at present some 0–3 per cent below normal capacity working. If the lower end of this range turns out to be accurate, then fiscal policy clearly needs to be tightened. But if the centre or top end of the range turns out to be accurate, then GDP is unlikely to return to trend until 1999/2000 at the earliest. On the central economic forecasts in this publication, the PSBR will be entirely eliminated by that year. Therefore, on the latest published public expenditure plans, a small tax cut in 1996 would still leave the government finances in a broadly appropriate condition. However, if public expenditure restraint cannot be delivered as planned, then it is less clear that the current setting for tax policy will produce an appropriate out-turn for the budget deficit over the medium term, even if the output gap turns out to be favourable.

## 3.1 The Definition of Appropriate Budget Policy

In previous issues of the Green Budget, we have repeatedly argued that while determining the optimal level of government borrowing is very difficult, two different tests should be applied to the government’s budgetary arithmetic to decide whether

medium-term fiscal policy is broadly appropriate. First, policy should ensure the sustainability of the public finances, in the sense that the ratio of public sector debt to GDP is stabilised at a reasonable level. This is a minimum requirement. Second, we have also argued that the government should avoid increasing its liabilities more rapidly than it increases the value of its assets, which in turn implies that its net borrowing requirement should be no greater than the level of net public investment.

The first of these criteria is, on present plans for public investment, less stringent than the second. Assuming that the government aims to hit its 2.5 per cent inflation target over the medium term, and that the real rate of interest in the UK is 4 per cent, then the sustainable level for the PSBR would be around 2.5 per cent of GDP per annum if the debt ratio is to be stabilised at close to its current level. Clearly, the actual PSBR could vary around this sustainable level in the course of the economic cycle, but when GDP is at normal or mid-cycle levels, the government accounts should be set so that this level of public borrowing is achieved. It would ensure a long-term debt/GDP ratio of around 50 per cent.

However, in order also to achieve the golden rule of public finance, the PSBR would need to be cut to around 1 per cent of GDP, which is the level of net capital formation planned for the medium term.<sup>1</sup>

Applying these concepts, successive Green Budgets have recommended that the PSBR should be brought down to around 1–2.5 per cent of GDP by the time the economy is next at normal capacity working. Prior to the tax increases announced in March and November 1993, these objectives seemed most unlikely to be achieved. Following the 1993 tightening in fiscal policy, the situation changed. Our estimates suggested that, provided the government actually hit its public spending targets, fiscal policy had been tightened sufficiently to achieve our recommended fiscal objectives. Since the 1993 watershed, there have been considerable fluctuations in both directions, but the PSBR has generally overshot the objectives set at that time. Despite this, with real GDP growth also falling below target in recent years, we have continued to argue that the setting of fiscal policy has remained tolerably close to our recommended objectives. Last year, we concluded that a small tax cut in the 1995 Budget would probably still be compatible with appropriate fiscal targets, provided that the government's real public spending plans continued to be hit.

How do the fiscal objectives of the government compare with those that we have recommended? In the 1995 Financial Statement and Budget Report, the Treasury said that its objective was 'to bring the PSBR back towards balance over the medium term'. Although the definition of 'the medium term' was left vague, one interpretation is that the government intends to balance the budget on average over the cycle. This in turn implies that it should aim for a zero PSBR when the economy is next at trend.

The situation was further complicated, however, by the fact that the 1995 Budget added a new commitment, which was 'in particular to ensure that when the economy is next on trend, the public sector borrows no more than is required to finance its net

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<sup>1</sup>Defining net public investment is clearly conceptually difficult and yet practically important for any version of the golden rule. For further discussion, see pages 36–43 of *Options for 1994: The Green Budget*, Institute for Fiscal Studies, London, 1993.

capital spending'. This is a very specific formulation of the golden rule of public finance, and it is not wholly consistent with the government's initial objective of achieving budget balance over the medium term. In fact, if the government were content simply to achieve the golden rule, then, as we have already explained, it would need to do no more than limit the PSBR to around 1 per cent of GDP, and would therefore not need to balance the budget. Thus the Chancellor appears to have two targets, involving a PSBR of zero or a PSBR of a little more than 1 per cent of GDP, and this ambiguity has never been fully clarified.

Meanwhile, Shadow Chancellor Gordon Brown has also set himself two fiscal objectives. One of them once again is to enforce the golden rule — 'we only borrow to invest, and not to fund current expenditure' — so there is no difference on that score from the present Chancellor. However, the second Labour objective is quite different. 'Over the cycle', the party's latest policy document says, 'we will ensure that public debt as a proportion of national income is at a stable and prudent level'. Thus the two Labour objectives seem virtually identical to those suggested by successive Green Budgets, and they would imply a PSBR target of 1–2.5 per cent of GDP.

Thus it would appear that the government's possible range of PSBR objectives is 0–1 per cent of GDP, while the range of Labour's objectives is 1–2.5 per cent of GDP. On the face of it, this would appear to leave Labour with scope to run a higher PSBR than the Conservatives. But there is one more possible source of confusion, which is that Labour's objectives appear to apply on average over the course of the whole cycle, while the Conservative objectives seem to apply solely to that point in the future when the economy is on trend, while allowing borrowing to exceed these levels in the mean time. Ed Balls, Economic Adviser to Gordon Brown, has argued that this makes Labour's objectives at least as tough as those of the current government.

The fiscal objectives of the next government may, in any case, need to be amended in the light of the move towards EMU. Although the Maastricht Treaty itself sets a limit to the budget deficit of 3 per cent of GDP, this objective looks likely to be tightened in the form of a new 'Stability Pact' negotiated between future members of the monetary union. The Stability Pact seems likely to place an absolute upper limit of 3 per cent of GDP on the budget deficit, and countries would incur fines if this target were missed. However, on average over the cycle, countries would need to commit themselves to a deficit of 1 per cent of GDP, so that the 3 per cent upper limit could be respected during recessions. Although the UK may well remain outside EMU for an indefinite period, it will probably wish to publish fiscal objectives that are in line with those contained in the Stability Pact. Indeed, in each of the last two UK recessions, the PSBR has worsened by much more than two per cent of GDP, which implies that a 1 per cent normal objective for the PSBR might be too high to ensure that the 3 per cent ceiling is permanently maintained.

Taken overall, this discussion suggests that a sensible medium-term objective for the PSBR would be at the lower end of the range 1–2.5 per cent of GDP. This would be in line with the objective of the Stability Pact and also in line with that required to hit the golden rule of public finance, or to ensure that the debt ratio is sustainable.

## **3.2 The Extent of Spare Capacity in the UK Economy**

The next step is to decide by what date this objective should be hit. As argued above, the appropriate date is when the economy is next expected to be working at normal capacity, or when GDP is on 'trend'. Unfortunately, however, the definition of trend is not entirely straightforward. Although the concept and size of 'the output gap' is now bandied about in the public debate as if there were some precise meaning and definition for this term, this is sadly not the case. In fact, the more one thinks about its meaning, the more elusive the concept can become. Nevertheless, it still seems sensible to try to define and measure the concept, if only to help focus the discussion of appropriate fiscal policy.

Many techniques for measuring the output gap appeal to the concept of 'trend' output. If the main structural features of the economy remain reasonably constant over time, then the trend in output should be a manifestation of the evolution of equilibrium output through time. If the structure of the economy changes, the trend may change without warning — as indeed it did (for the worse) in the 1970s. Furthermore, the supply potential of the economy can be temporarily depressed below normal by a lack of capital investment. It is therefore dangerous to assume that the simple extrapolation of past trends will necessarily give reliable results.

At present, such extrapolations tend to suggest that the output gap remains quite large. For example, we can observe that over very long-term periods (1950–95 or 1979–90, for example) the economy has tended to sustain a growth rate of around 2–2.5 per cent per annum. We can simply assume that the same underlying growth rate — say 2.25 per cent per annum — has been maintained in the period since output was at trend during the last economic cycle, i.e. in the second half of 1990. On this basis, extrapolating trend GDP at 2.25 per cent per annum since that date, real GDP remains around 3 per cent below trend at present.

However, the problem with this estimate is that there is no guarantee that the trend rate of growth of output since the end of 1990 has been maintained at its historic rate. On the one hand, there is some possibility that a large reduction in the 'natural' rate of unemployment (or NAIRU) may have resulted in an increase in the sustainable level of GDP; on the other hand, the slowdown in the rate of growth of the labour force, and the exceptionally low rates of capital investment in the current upswing, may have depressed the trend rate of growth relative to its long-term average. This means that it is unsafe to assume that output is now 3 per cent below a 'normal capacity' level.

There are several ways of attempting to tackle these difficulties. For example, it is possible to attempt to estimate potential output from a production function relationship, using survey measures of capacity utilisation and explicit estimates of the natural rate of unemployment to derive the required figures for potential labour and capital inputs. But there are again severe ambiguities with this method. First, measures of capacity utilisation taken from the CBI survey cover only part of the economy, and to some extent produce differing results depending on the precise questions asked. Second, any estimate of the natural rate of unemployment is inherently uncertain.

Based on a method recently proposed by Jorgen Elmskov of the OECD,<sup>2</sup> and using the GDP deflator as the relevant measure of inflation, the natural rate of unemployment is estimated to be around 7.5 per cent at present, down from a peak of around 9 per cent in 1986.<sup>3</sup> If we assume that the natural rate is genuinely around 7.5 per cent at present, then actual unemployment is currently identical to the natural rate. Obviously, this has a rather bleak implication for the present level of the output gap, especially since capacity utilisation in the CBI survey still remains above its historical average. With unemployment close to its natural rate, and capacity utilisation actually above normal, it is not surprising that estimates of the output gap based on production functions imply that the gap is now running very close to zero.

This rather pessimistic conclusion is also supported by the behaviour of unemployment and unfilled vacancies relative to their previous trends. The economy is now back in the zone where vacancies are above their long-term trend, while unemployment is below its five-year moving average (which is another proxy sometimes used for the natural rate of unemployment). Although not yet quite back to the kind of tight labour market conditions shown by these measures in 1987–89, the economy has been approaching such conditions quite rapidly. Again, this would imply that the output gap is probably quite small at present.

One other measure of the output gap deserves comment. Looking back at the early 1980s, we now find that the official estimate of ‘trend output’ (based on the Office for National Statistics (ONS) coincident indicator of the cycle) suggests that trend GDP rose at a rate of only 1.2 per cent per annum in the first three years of the upswing of the 1980s, followed by growth of 3 per cent in the next 18 months, and of 4.4 per cent in the ensuing two years. (These are the GDP growth rates between the dates when the coincident indicator was at 100.) If we make the heroic assumption that the same pattern has been followed this time — with slow growth in the short-term capacity of the economy in the early stages of the upswing, followed by slightly faster growth as the economic expansion continues — then we find that on this measure, the output gap was eliminated entirely by the end of 1994, but that slow growth in actual GDP since then has restored the output gap now to around 1 per cent. Given time for the capital stock to adjust, we may eventually be able to utilise the full 3 per cent long-run output gap which is indicated by the extrapolation of the 2.25 per cent long-run trend for GDP mentioned earlier. Or, even more optimistically, we may find that labour market reforms have reduced the natural rate of unemployment, in which case the long-run output gap may turn out to be even larger than this.

The upshot of this analysis is, of course, that we should not place absolute faith in any individual estimate of the output gap, either now or in the past. The estimates quoted above suggest that the output gap may be anywhere between 3 per cent

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<sup>2</sup>Essentially, this applies a simple augmented Phillips curve to two successive years, assumes that the natural rate is broadly constant between these two years, and solves the two equations for two unknowns — see OECD Working Paper no. 132 for details.

<sup>3</sup>Unfortunately, if we use either average earnings or underlying retail prices as the relevant measure of inflation, we get a different path for the NAIRU over past history, which suggests that this method is not very robust. However, it is interesting to note that on all three inflation measures, the present level of the natural rate is estimated at 7–8 per cent.



(based on the 2.25 per cent constant GDP growth method), and zero (based on the production function method). Our third method, based on repeating the pattern of GDP growth in the 1980s, suggests that the current output gap is around 1 per cent.

Our conclusion from this at the moment is that the economy may indeed be about 3 per cent below its long-term trend, but that it is only about 1 per cent below its short-term capacity.

Whether the UK can ever eliminate the full 3 per cent long-term output gap probably depends as much on the speed of adjustment as on anything else. If the economy can grow only slightly above the 2.25 per cent long-term trend rate of growth for a series of years, say at around 3 per cent per annum, then the supply side of the economy might get sufficient time to respond to the additional demand without generating any additional inflation pressure in the mean time. However, if policy pushes up against short-term supply constraints more rapidly (say by allowing GDP to grow by 4 per cent or more for a short period), then inflation pressures might re-emerge before the economy can return to its long-term trend.

Essentially, it seems likely that the full elimination of the long-term output gap (3 per cent of GDP) will only occur if there is a burst of labour-saving investment over the next few years. This will enable the capacity of the economy to grow, while avoiding a substantial increase in inflationary pressures in the labour market. It is possible that this will happen, but it is not sufficiently certain to be made the base case for the setting of fiscal policy.

### **3.3 Implications for Sustainable Fiscal Policy**

What does all this imply for the sustainability of the present stance of fiscal policy? Obviously, if we adopt the most pessimistic assessment of the output gap (i.e. zero), then budgetary policy already needs to be tightened. The PSBR in 1996/97 is likely to be 3.3 per cent of GDP, which is well above the sustainable target of 1–2.5 per cent of GDP suggested above, never mind the lower end of this range. However, we get a more optimistic assessment if we use a larger estimate of the output gap. For example, assuming that the short-term output gap is around 1 per cent of GDP, then on the central forecasts used in this publication, it will not be fully eliminated until 1999/2000. (This assumes that the trend rate of growth of output in the second half of the economic expansion will be higher than the normal 2.25 per cent trend rate. The reason for this is that an above-average amount of capital spending typically takes place late in the cycle, triggering an above-average growth rate in economic capacity.) Provided that the government's real spending plans are achieved over the medium term, then the PSBR will decline to zero by 1999/2000, implying that the current stance of fiscal policy should comfortably be able to achieve the recommended objectives. Obviously, if the output gap at present turns out to be as large as 3 per cent, then the same conclusion applies.

The upshot of this is that the present setting for fiscal policy is broadly acceptable, provided that the public spending targets can be hit, and provided also that the long-term output gap estimates quoted above prove correct. It will not prove acceptable if the public spending targets are too optimistic, or if the short-term output gap calculations prove binding. Repeated past experience in the UK and elsewhere

suggests that faced with uncertainties of this type, it is prudent to take conservative decisions on the fiscal stance. If the most optimistic assessments then turn out to be true, taxes can easily be reduced, and/or interest rates can be cut, to keep the economy and the PSBR on track. On the other hand, if less optimistic out-turns occur, there is typically a substantial increase in the debt ratio before the government has the time, and the political muscle, to correct the situation.

On balance, we would conclude that the output gap in the economy at present is around 1–3 per cent, in which case the present setting for budgetary policy is acceptable, provided the government's spending plans can be hit. We examine the pressures on spending in Chapter 6.

## 4 The 1997 Budget

In this chapter, we move on from the discussion of medium-term objectives for fiscal policy to an assessment of public finances this year and next, on the basis of no change in government policy. We then outline our views on the likely medium-term path for public borrowing, since this has a significant effect on our views about what is appropriate in the 1996 Budget. Shorter-term considerations for the Chancellor are also important in framing a Budget, and we conclude with a budget judgement that takes account of these factors.

### 4.1 The PSBR in 1996/97 and 1997/98

Our current forecast for the public sector borrowing requirement (PSBR) in 1996/97 is £26.2 billion, or 3.5 per cent of GDP. Table 4.1 shows that this is considerably greater than the forecast made at the time of the last Budget, but a little less than the amended forecast published in the Treasury's Summer Economic Forecast (SEF) in July 1996.<sup>1</sup>

The expected worsening in the PSBR from the Financial Statement and Budget Report (FSBR) to the SEF was almost entirely a result of reductions in forecast tax receipts, especially from income tax, corporation tax and VAT. In part, this reflects a somewhat better inflation out-turn than was predicted. Lower inflation means lower nominal incomes and lower nominal consumer spending, which in turn reduce nominal tax receipts. As well as lower inflation, we have seen somewhat lower real economic growth than was forecast, which has also depressed the growth of tax revenues.

The amendments to tax revenues between the FSBR and the SEF do not seem to reflect any further forecast reductions in the responsiveness of tax revenues to economic growth, which seems to us to be the correct stance.

On the public expenditure side, lower inflation and growth are unlikely to lead to lower nominal public spending than planned. It is always difficult to cut nominal spending plans after the beginning of the financial year and this is especially true in a year when the beef crisis has led to substantial calls on the contingency reserve. We therefore expect the nominal spending plans to be achieved, implying a higher path for real public expenditure growth than was planned in the 1995 FSBR.

Our PSBR forecast for 1996/97 is for a small undershoot relative to the SEF. This reflects the likelihood of slightly higher tax receipts as economic growth accelerates in the second half of 1996/97. As in the SEF, we assume that public spending will meet its nominal target and that it will not be cut back to reflect lower-than-anticipated inflation.

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<sup>1</sup>In this forecast, we have made no provision for any temporary reduction in the 1996/97 PSBR as a result of the National Lottery Boards receiving income from lottery sales but deferring spending into future years.

Table 4.1: The public finances in 1996/97 and 1997/98

(£ billion)	FSBR	Summer Economic Forecast	IFS forecast	1997/98
Income tax	70.2	68.9	69.5	74.7
Corporation tax	26.6	25.7	25.6	27.0
Petroleum revenue tax	1.0	1.2	1.2	1.2
Capital gains tax	1.0	0.9	0.9	0.9
Inheritance tax	1.5	1.5	1.5	1.4
Stamp duties	2.4	2.3	2.3	2.4
<b>Total Inland Revenue</b>	<b>102.6</b>	<b>100.7</b>	<b>101.0</b>	<b>107.7</b>
VAT	47.9	46.7	47.0	49.5
Petrol	17.4	17.5	17.2	19.3
Tobacco	7.7	7.8	7.9	8.4
Alcohol	5.7	5.8	5.8	6.2
Betting and gaming	1.7	1.7	1.5	1.6
Customs duties	2.4	2.2	2.2	2.2
Agricultural levies	0.2	0.2	0.2	0.2
Air passenger duty	0.3	0.4	0.4	0.4
Insurance premium tax	0.7	0.6	0.6	0.7
Landfill tax	0.1	0.1	0.1	0.4
<b>Total Customs and Excise</b>	<b>84.1</b>	<b>83.0</b>	<b>82.8</b>	<b>88.9</b>
Vehicle excise duties	4.3	4.2	4.2	4.4
Oil royalties	0.5	0.6	0.6	0.6
Business rates	14.7	14.3	14.3	14.9
National Insurance contributions	46.9	46.6	47.2	49.1
Council tax	9.9	9.8	9.8	10.4
Other taxes and royalties	5.7	5.9	5.9	5.5
<b>Total taxes and social security contributions</b>	<b>268.7</b>	<b>265.2</b>	<b>265.8</b>	<b>281.5</b>
Interest and dividends	4.8	5.0	5.0	5.1
Gross trading surplus and rent	5.3	5.2	5.2	5.3
Other receipts	6.0	4.9	4.9	7.1
<b>General government receipts</b>	<b>284.8</b>	<b>280.4</b>	<b>280.9</b>	<b>299.0</b>
Control total	260.2	260.2	260.2	267.5
Cyclical social security	13.9	14.3	14.3	14.1
Central government debt interest	22.3	22.2	22.2	25.1
Accounting adjustments	9.7	10.0	10.0	9.3
<b>GGE(X)</b>	<b>306.1</b>	<b>306.8</b>	<b>306.7</b>	<b>316.0</b>
Privatisation proceeds	-4.0	-4.5	-4.5	-2.0
Other adjustments	6.2	5.8	5.8	6.5
<b>General government expenditure</b>	<b>308.3</b>	<b>308.1</b>	<b>308.1</b>	<b>320.5</b>
General government borrowing requirement	23.5	27.8	27.2	21.5
Public corporations' market and overseas borrowing	-1.1	-0.9	-0.9	-0.3
<b>PSBR</b>	<b>22.4</b>	<b>26.9</b>	<b>26.2</b>	<b>21.2</b>

For 1997/98, we expect a PSBR of £21.2 billion on the assumption of no policy changes. This is £6.2 billion higher than the forecast in the 1995 FSBR. Of this income, £5 billion arises from lower tax receipts, due to lower-than-expected nominal GDP growth. Lower inflation is reflected in a reduction of £0.5 billion in the control

total relative to the 1995 FSBR, and the other changes are accounted for by increases in debt interest, the borrowing requirement of public corporations and other accounting adjustments.

Before moving on to a consideration of the medium-term path for the public finances, we should note that the monthly pattern of revenue receipts this financial year has been particularly volatile, which makes forecasts of the out-turn for 1996/97 more uncertain than normal. Since the 1996/97 forecast forms the base from which subsequent years are estimated, this uncertainty persists for the medium-term estimates.

## 4.2 The PSBR in the Medium Term

Forecasting the PSBR in the medium term in the absence of discretionary government policy changes requires a projection of the main macroeconomic variables over the period of interest. Clearly, the further forward we look, the greater is the margin of error in our projections, and this is particularly true with PSBR forecasts. Appendix A gives details of our economic assumptions and their relationship with our forecasts for government revenues and expenditure. Table 4.2 outlines the macroeconomic assumptions underlying our medium-term forecasts for the public finances. Under our central economic forecast, GDP growth accelerates through the rest of this financial year on the back of rising consumers' expenditure and peaks in 1997/98 at 3.5 per cent. After this, the economy is projected grow at a stable but above-trend growth rate of 2.8 per cent into the medium term, reflecting our view that the economy is somewhere up to 3 per cent below trend. Fast growth in 1997/98 is accompanied by low inflation although we expect growth in the GDP deflator to pick up towards the end of the period to around 3 per cent.

**Table 4.2: Main macroeconomic assumptions**

(percentage growth)	1996/97	1997/98	1998/99	1999/2000	2000/01
GDP	2.4%	3.5%	2.8%	2.8%	2.8%
Consumers' expenditure	3.2%	3.5%	3.2%	2.8%	2.3%
Corporate profits (lagged)	5.0%	5.0%	8.0%	8.0%	6.0%
Employment (lagged)	0.4%	0.4%	0.8%	0.8%	0.7%
Wages	3.9%	4.5%	4.8%	5.0%	5.0%
GDP deflator	2.5%	2.3%	2.5%	2.8%	3.0%

### *Real Planned Public Spending Growth Achieved from 1997/98*

Table 4.3 shows the path for the PSBR using the macroeconomic assumptions in Table 4.2 on the basis that real public spending growth is limited to that planned in the 1995 FSBR from 1997/98. This means that the control total grows by no more than 0.75 per cent in real terms per year from then onward. On these assumptions, we expect the PSBR to decline each year and to be eliminated in 1999/2000. Tight public expenditure control coupled with faster-than-trend GDP growth ensures that the

government's target ratio of public expenditure, GGE(X), to GDP falls from 41.3 per cent this year to just under 38 per cent by the end of the period. On the receipts side, we expect a rising share of receipts to GDP. This reflects 'fiscal drag', i.e. the relatively high responsiveness of tax revenues to GDP growth.<sup>2</sup>

**Table 4.3: The government finances in the medium term — real spending plans achieved**

(£ billion)	1996/97	1997/98	1998/99	1999/2000	2000/01
General government receipts	280.9	299.0	320.6	342.3	364.12
General government expenditure	308.1	320.5	331.3	342.1	354.6
<b>PSBR</b>	<b>26.2</b>	<b>21.2</b>	<b>10.7</b>	<b>-0.2</b>	<b>-9.6</b>
General government receipts as a percentage of GDP	37.8%	38.2%	38.8%	39.2%	39.5%
GGE(X) as a percentage of GDP	41.3%	40.4%	39.5%	38.6%	37.9%
<b>PSBR as a percentage of GDP</b>	<b>3.5%</b>	<b>2.7%</b>	<b>1.3%</b>	<b>-0.0%</b>	<b>-1.0%</b>

Table 4.3 shows that, under this scenario, government borrowing declines to the range of broadly acceptable levels some time in 1998. So long as the output gap is not eliminated before 1998, the government's fiscal stance is in line with the 'rules of thumb' of prudent fiscal policy set out in Chapter 3. Indeed, in this scenario, provided the output gap is in the middle or upper end of our range, a small tax reduction in the November Budget would be possible without jeopardising the fiscal position.

#### ***PSBR Path with Faster Public Spending***

The reasonably bright outlook for the public finances shown in Table 4.3 assumed that the government achieves its planned real growth of public expenditure from next year onward. Our analysis of public spending in Chapter 6 suggests that, in the short term, achieving the planned nominal levels of public spending should be feasible. But, in the medium term, it will be much tougher to achieve the government's planned real growth in underlying spending. If it is to be achieved, tough decisions and a steady reshaping of the post-war welfare state will be needed. Such changes have already occurred in the social security system, but, in the future, health and education will also come under increasing pressure.

Table 4.4 shows the path of the PSBR under the assumption that underlying public expenditure reverts to a higher-growth path in 1998/99. Specifically, we assume that the control total grows in line with long-term trend growth in GDP at a rate of 2.25 per cent per annum.

<sup>2</sup>If we assumed tax elasticities were at the levels of the 1980s, we would expect much faster growth in the ratio of general government receipts to GDP.

**Table 4.4: The government finances in the medium term — faster public expenditure growth**

(£ billion)	1996/97	1997/98	1998/99	1999/2000	2000/01
General government receipts	280.9	299.0	320.6	342.3	364.2
General government expenditure	308.0	320.5	336.1	351.7	369.7
<b>PSBR</b>	<b>26.2</b>	<b>21.2</b>	<b>15.5</b>	<b>9.4</b>	<b>5.5</b>
General government receipts as a percentage of GDP	37.8%	38.2%	38.8%	39.2%	39.5%
GGE(X) as a percentage of GDP	41.3%	40.4%	40.1%	39.7%	39.5%
<b>PSBR as a percentage of GDP</b>	<b>3.5%</b>	<b>2.7%</b>	<b>1.9%</b>	<b>1.1%</b>	<b>0.6%</b>

With underlying public spending growing with the long-term trend growth in GDP, the ratio of GGE(X) to GDP falls more slowly: a fall in the ratio still occurs because GDP growth is faster than its long-term trend. (This is discussed further in Chapter 6.) By the end of the period, the spending ratio would have fallen below 40 per cent of GDP, but the PSBR would be £15 billion higher than if the government hit its current real medium-term spending plans.

Under this scenario, there would be little scope for tax reductions in the November Budget. Tax cuts could only be justified if the output gap is close to the upper end of the 1–3 per cent range. As discussed in Chapter 3, it would be too risky to assume such a large output gap at present. Cutting taxes in this November's Budget therefore requires that the government sticks to the real path of spending outlined in the 1995 FSBR, or at least presents spending plans consistent with this.

#### *The Public Finances with a Consumer Boom in 1997/98 and 1998/99*

Table 4.5 highlights the sensitivity of our PSBR forecasts to changes in the rate of growth in the economy. Making macroeconomic assumptions similar to those experienced in the consumer boom of the late 1980s, we would expect a PSBR of £6.3 billion in 1998/99. This is nearly £4.5 billion lower than the PSBR on the central assumption and it would be very tempting for any Chancellor faced with this prospect to cut taxes or increase spending in next year's Budget. This would be exactly the wrong course of action because the economy would almost certainly have moved above trend. So whilst the headline PSBR figures would look very promising, the underlying state of the public finances would remain unchanged.

**Table 4.5: The government finances for 1998/99 — consumer boom**

(£ billion)	1996/97	1997/98	1998/99
General government receipts	280.9	301.6	329.6
GGE	308.0	321.1	335.9
<b>PSBR</b>	<b>26.2</b>	<b>19.2</b>	<b>6.3</b>
<b>PSBR as a percentage of GDP</b>	<b>3.5%</b>	<b>2.5%</b>	<b>0.8%</b>

With hindsight, given the huge fiscal deficits that appeared once the unsustainable boom of the late 1980s unwound, it is easy to criticise Nigel Lawson for cutting taxes in 1987, 1988 and 1989. These criticisms may be a little harsh when nearly all commentators (including the Green Budgets at that time) spoke of structural fiscal surpluses. But there is a possibility that the late 1990s could be characterised by similar sharp falls in the PSBR and, if this turns out to be the case, no one should be under any illusion this time that the underlying fiscal position has changed.

### **4.3 Shorter-Term Considerations**

In addition to the medium-term considerations discussed in Chapter 3, the framing of budgetary policy needs also to pay some consideration to short-term economic factors. Although it is nowadays unfashionable to use budgetary policy as a means of managing demand, it is certainly important to consider how the stance of fiscal policy may change over the short term, since this will affect decisions on short-term interest rates and will therefore partly determine the fiscal/monetary mix. This in turn may well have a significant effect on the exchange rate.

In recent years, the Chancellor has attempted to deliver a gradual tightening in fiscal conditions, offset by the maintenance of relatively easy monetary policy and a competitive exchange rate. This mix has been quite successful in generating a recovery in domestic GDP relative to that in competitor economies, while maintaining downward pressure on inflation and a satisfactory balance of payments position.

The tightening in the fiscal stance was delivered initially by the tax increases announced in 1993, and latterly by reductions in public spending as a share of GDP. In the 1995 Budget, the Chancellor announced measures to reduce the share of public spending in GDP substantially over the following two years, implying that the fiscal stance would tighten by 0.5 per cent of GDP in 1996/97 and by 0.6 per cent of GDP in 1997/98. (Note that these figures are based on the change in the cyclically adjusted budget deficit.)

This planned tightening in fiscal policy was implemented entirely through the public expenditure side of the government accounts, and was consistent with some easing in the net burden of taxation. Furthermore, it paved the way for a significant easing in monetary policy, with base rates being reduced by 1 percentage point in the past 12 months.

On our latest estimates, the PSBR will overshoot the government's 1995 Budget plans in the current fiscal year, but much of this will be due to a lower level of real GDP than was expected a year ago. Consequently, the net tightening in the fiscal stance (again measured by the cyclically adjusted budget deficit) will be about the same as was intended a year ago. Thus, despite the fact that the PSBR has come in higher than expected, this has not disturbed the Chancellor's intended tightening of the fiscal stance.

Next year, the outcome will again depend mainly on whether the planned cut in public spending as a share of GDP can actually be implemented. On our latest estimates, using the public spending plans announced last year, the net fiscal stance is likely to tighten by 0.4 per cent of GDP in 1997/98, which would be similar to that



which has occurred in each of the last two years. If taxes are cut by (say) £3 billion in November, matched by a similar cut in public spending, then the tightening in fiscal policy next year would still be around 0.4 per cent of GDP.

Hence, some modest tax and spending cuts in the Budget would still be compatible with a further tightening in the fiscal stance, and this taken alone should not imply the need for any rise in interest rates. However, when taken in conjunction with other special factors that will boost consumers' expenditure growth next year (notably the impact of share sales by building societies), the resulting growth in consumers' expenditure could well be uncomfortably high, at around 3.5 per cent. This is much higher than the sustainable growth rate in consumption, and it is very debatable whether a tax cut this year is appropriate in this context. It would be preferable if, instead, the PSBR were allowed to decline further, with the fiscal stance tightening to a correspondingly greater extent.

## 4.4 The Budget Judgement

Both the medium-term and shorter-term considerations suggest that there is little economic case for tax cuts in this year's Budget. The risks that spending cannot be controlled as tightly as planned in the medium term, or that the long-term output gap of 3 per cent cannot be realised, would imply a cautious Budget. This would ensure the fiscal stance would tighten considerably and reduce the need for interest rate increases.

But the Chancellor will also have to consider the vociferous calls for tax reductions from within his own party. It would be very surprising in this context not to see reductions in headline tax rates of around £3 billion in this Budget. In order not to let the fiscal stance become significantly less tight than previous plans suggest, nor to appear to be engaging in tax cuts for cynical pre-election purposes, nor to let the recovery in the PSBR path fall further behind plans in the Treasury's Summer Economic Forecast, we expect to see the tax cuts for 1997/98 backed by reductions in the control total relative to the plans in the 1995 FSBR.

**Table 4.6: The outlook for 1997/98 — 'neutral' tax and spending cuts scenario**

(£ billion)	<i>FSBR, November 1995</i>	<i>Summer Economic Forecast 1996</i>	<i>Green Budget 1996: central forecast</i>	<i>Green Budget 1996: 'neutral' Budget scenario</i>
Control total	268	268.2	267.5	265.0
General government receipts	304	298.2	299.0	296.0
PSBR	15	23.1	21.2	21.7

Lower-than-expected inflation for this year means that the planned level of public spending growth between this year and next can be achieved while cutting the nominal spending plans by £0.5 billion. To fund further tax reductions, genuine cuts in the growth of real planned public spending would be required, of some £2.5 billion to allow the income tax reductions of around £3 billion. Table 4.6 shows the PSBR in

1997/98 that we expect to be shown in this November's FSBR. It includes £3 billion of tax reductions, and nominal spending plans will also be £3 billion lower than last year. The Chancellor would be able to claim a neutral Budget, with a PSBR forecast lower than the Summer Economic Forecast. A total cut in the nominal spending plans of around £3 billion would have the additional appeal of reducing the control total in 1997/98 to the real level implied in the 1995 FSBR. Whether the additional spending reductions are achievable in practice will not be known in November, and would, of course, be a problem for the next government.

# 5 Tax Measures for the November Budget

In this chapter, we consider a range of issues in taxation that seem likely to be relevant in the discussion running up to the Budget this November. We begin with personal income tax, then move on to excise duties, the taxation of companies and finally capital taxes.

## 5.1 Direct Tax Measures

The probability of the government undertaking necessary and often complicated reforms to the direct tax system in the Budget before the general election is remote. It is probably even too much to expect the Chancellor to focus reductions in direct taxation in areas where the case for change is strongest, such as employer National Insurance contributions for the lower-paid. So we begin this section with a discussion of possible methods of cutting income tax. Income tax cuts are again very high on the Budget agenda because of their great visibility. But we should remember that income tax raises only a quarter of total tax revenue and any income tax reductions now will be much smaller than the tax increases of the 1993 Budgets.

Current income tax rates and allowances are shown in Box 5.1. The scale of the income tax cuts likely in this Budget is not entirely clear, as it will depend not only on the state of the public finances, but also on the scale of any tax increases in other areas. So, for each type of income tax cut, we examine the implications at a range of different exchequer costs.

**Box 5.1: Current income tax rates, bands and allowances**

<b>Income tax rates and bands, 1996/97</b>		
	<i>Taxable income band</i>	<i>Rate of tax</i>
Lower rate	Under £3,900	20%
Basic rate	£3,900 to £25,500	24%
Higher rate	Above £25,500	40%
<b>Income tax allowances, 1996/97</b>		
Personal allowance	£3,765	
Married couple's allowance	£1,790	

Note: Married couple's allowance is restricted to 15 per cent.

### Options for Cutting Income Tax

There are three main options open to Mr Clarke if he chooses to cut income tax in the Budget: he can reduce tax rates, extend tax allowances and/or widen the lower-rate tax band.

We consider here these three options for cutting income taxes over a range of reductions in the tax burden.<sup>1</sup> The specific reforms we have chosen to investigate are summarised in Table 5.1. For a total cost of £1 billion, £3 billion and £5 billion to the government (in terms of lost tax revenue), the basic rate could be cut from 24p in the pound to 23.5p, 22.5p and 21.5p, respectively. Personal allowances could be increased by £175, £450 and £775, and the lower-rate band could be widened by £1,350, £4,250 and £8,550, respectively.<sup>2</sup>

**Table 5.1: Options for cutting income tax**

	Reduction in annual tax burden of:		
	£1 billion	£3 billion	£5 billion
Cut basic rate by:	0.5p	1.5p	2.5p
Extend personal allowances by:	£175	£450	£775
Widen lower-rate band by:	£1,350	£4,250	£8,550

In Figure 5.1, the lightest portion of the bars illustrates the effect of the cheapest (£1 billion) option, with the other two sections showing the additional effects of increasing the generosity of the tax cut to £3 billion and £5 billion, respectively.

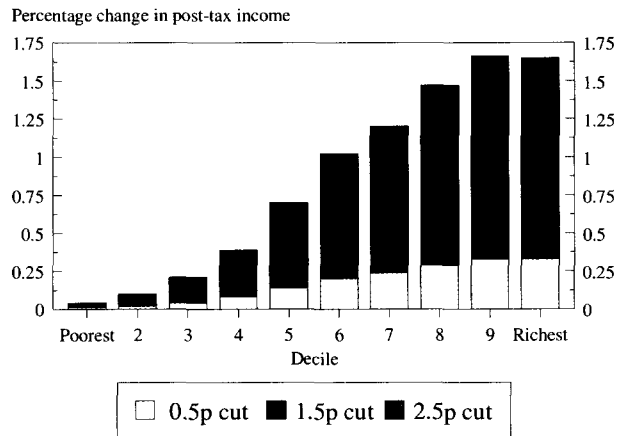
### Cutting the Basic Rate of Income Tax

Figure 5.1a illustrates the cumulative effects of cutting the basic rate. What is clear is that a cut in the basic rate gives larger percentage gains to richer households. This is because it benefits only those who currently pay tax at or above the basic rate, with the cash gains increasing as incomes rise up to the point where higher-rate tax becomes payable (£25,500 of taxable income in 1996/97). At this point, the *absolute* gain is maximised and will be the same for all who earn above this limit. This means that the *percentage* increase in income becomes slightly smaller as incomes rise above £25,500; hence the slight fall at the very top of the income distribution.

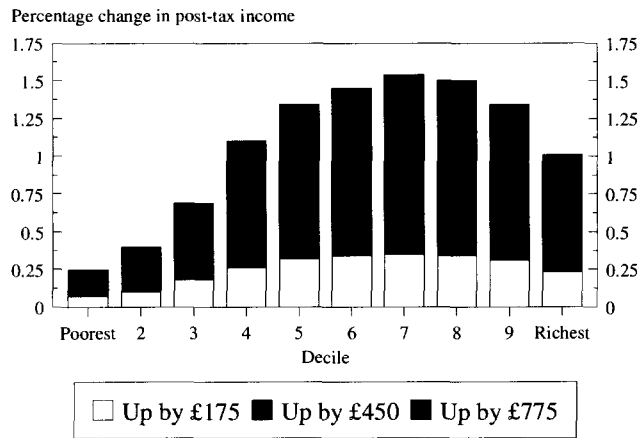
<sup>1</sup>Our results are generated by TAXBEN, the IFS model of the UK tax and benefit system, which uses data taken from a representative sample of households in the UK to infer the aggregate revenue implications and distributional effects of specific policy changes.

<sup>2</sup>Distributional effects are measured by the average percentage gain in household-level post-tax income for each income decile. Income deciles are generated by ordering the population by household income and then dividing it into 10 equal groups. As such, the bottom decile (decile 1) consists of the poorest 10 per cent of the population, with the richest 10 per cent being found in the top income decile (decile 10).

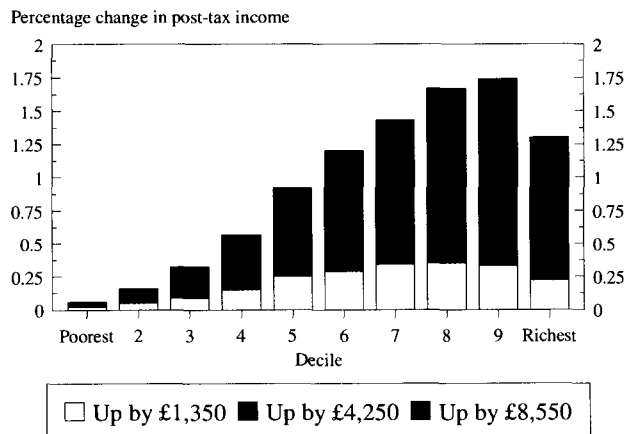
**Figure 5.1a: Distributional effects of basic-rate cut  
(additional gains from each reform)**



**Figure 5.1b: Distributional effects of extending personal allowance  
(additional gains from each reform)**



**Figure 5.1c: Distributional effects of widening the lower-rate band  
(additional gains from each reform)**



### Extending Personal Allowances

Of the three different methods for reducing income tax, increasing the generosity of personal allowances provides the greatest help to those on low incomes. The distributional effects are shown in Figure 5.1b. The absolute gain from more generous personal allowances is related to a person's marginal rate of tax: if an extension of the personal allowance is used to reduce the total tax burden by £3 billion, a single person under the age of 65 paying income tax at the higher 40 per cent rate gains by £180 each year (i.e. 40 per cent of the £450 extension); someone paying tax at the basic rate will see a fall in their annual tax bill of £108 (i.e. 24 per cent of £450); and lower-rate taxpayers will gain by £90 (20 per cent of £450). However, extending personal allowances does give the largest *proportionate* gain of our three options to those at the bottom end of the income distribution. Nevertheless, it might be deemed desirable to increase the basic-rate limit in order to avoid the largest gains going to top-rate taxpayers.

A final point to note is that extending personal allowances will reduce the total number of taxpayers by around 500,000, 1.1 million and 1.8 million, respectively, under each of the reforms considered here. Clearly, this has the effect of considerably reducing the administrative cost of collecting income taxes.

### Widening the Lower-Rate Income Tax Band

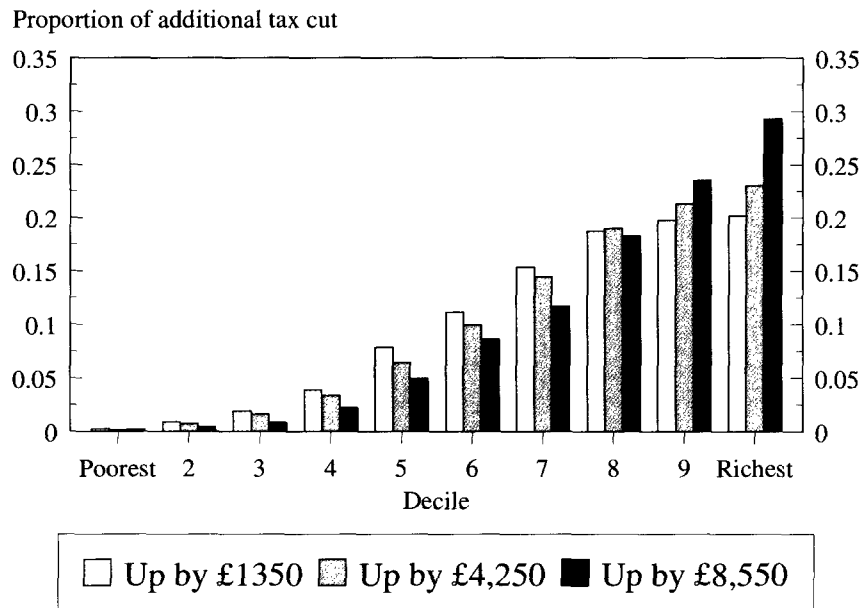
Extending personal allowances and cutting the basic rate of income tax have very different distributional effects, as illustrated by the gains to different income deciles in Figures 5.1a and 5.1b. Widening the lower-rate band can be regarded as something of a half-way house between these two extremes. But, as we shall see, the more the band is widened, the greater similarity (in terms of distributional effects) this type of reform has with a reduction in the basic rate.

The impact of widening the lower-rate tax band from its current level of £3,900 to each of three different levels, again costing £1 billion, £3 billion and £5 billion, is illustrated in Figure 5.1c. In Figure 5.2, instead of showing the percentage increase in post-tax income for each decile, the distribution of the additional total tax give-away is illustrated for the three options. For example, around 2 per cent of the total tax savings from widening the lower rate band by £1,350 (costing the government £1 billion in lost tax revenue) go to decile 3, with approximately one-fifth going to the top decile; if an additional £2 billion is spent (widening the lower-rate tax band by £4,250 to £8,150), only 1.5 per cent of the additional gains go to the third decile and 23 per cent to the top decile.

As with a cut in the basic rate, only those who already pay tax at or above the basic rate will benefit from a widening of the lower-rate band. But the proportionate gains do not increase so markedly with income in this case, because everyone paying basic- or higher-rate tax after the reform gains by the same cash amount, i.e. £54 per annum under the first reform (widening the band by £1,350 to £5,250), £170 under the second (with an increase in

the band of £4,250) and £342 with the most generous reform (widening the lower-rate band by £8,550).

**Figure 5.2: Distributional effects of widening the lower-rate band (share of total additional tax give-away going to each decile)**



What is striking about the distributional effects illustrated in Figure 5.2 is how richer households gain proportionately more the more the band width is increased, whilst poorer households gain proportionately less. This is because, as the lower-rate band is progressively widened, an increasing number of individuals paying tax at the basic rate become lower-rate taxpayers, and therefore will not gain from any further concessions. In other words, as the band is widened further, fewer people are affected, the gains going to poorer households decline, and the additional tax give-away is spread across a smaller number of (richer) individuals.

Widening the lower-rate band moves many individuals from paying tax at the basic rate to paying tax at the lower 20p rate. An increase in the band width costing £1 billion increases the number of lower-rate taxpayers (and reduces the number of basic-rate taxpayers) by 1.7 million, the £3 billion reform moves 5.3 million to the lower rate, and the most generous reform (costing £5 billion) moves almost 9.5 million.

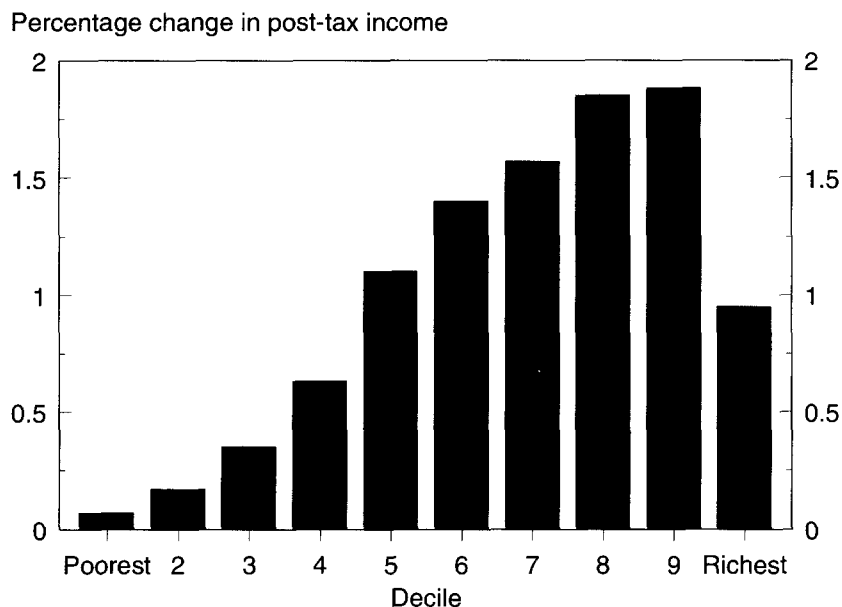
### **Introduction of a 20p Basic Rate of Tax**

Given that the Conservatives have stated their aim of delivering a 20p basic rate of income tax, it is worth considering the feasibility of such a change this year. The gross cost of such a measure (about £7.5 billion) could be partially recouped by restricting personal allowances to 20 per cent (the new basic rate) and lowering the basic-rate limit by £500. Such a reform would

produce a 20p basic rate at a net cost of £5 billion.<sup>3</sup> The cost reduction is achieved by limiting the gains going to higher-rate taxpayers and increasing the number of higher-rate taxpayers by 1.25 million.

This reform would mean that all income below £25,000 would be taxed at a marginal rate of 20 per cent, with a 40 per cent rate applicable above this level. The distributional effects are illustrated in Figure 5.3.

**Figure 5.3: Distributional effects of 20p basic-rate reform**



Gains from the introduction of a 20p basic rate increase as income rises. We have already seen how widening the current lower-rate band benefits richer households more as the band is widened further. Imposing a 20 per cent tax rate on *all* current basic-rate taxpayers represents the maximum widening of the lower-rate band.

Figure 5.3 also highlights the substantial drop in gains going to the very top decile. This effect is generated by the restriction of personal allowances to 20 per cent and the lowering of the basic-rate limit. Restricting personal allowances to 20 per cent only affects higher-rate taxpayers, because, if the restriction were not imposed, the personal allowance would be worth 40 per cent of its value to them. To all other taxpayers, paying tax at the 20p rate, the personal allowance is worth the same whether it is unrestricted or restricted to 20 per cent. Lowering the basic-rate limit by £500 means that the richest basic-rate taxpayers under the current system would pay tax at

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<sup>3</sup>The reform would create a small group of losers — those with large amounts of savings income which push them into higher-rate tax. However, this group only loses because a 20 per cent basic rate of tax on savings has already been introduced in the last Budget.



the 40 per cent rate under the reform, which would partially offset any gains to them from a reduction in the basic rate.

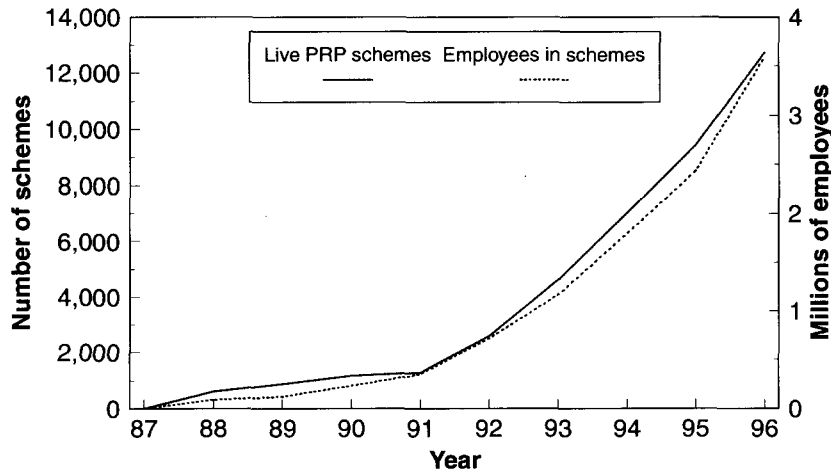
**Profit-Related Pay**

Income tax relief for profit-related pay (PRP) schemes was introduced in March 1987 in order to encourage firms to link part of their employees' wages to the performance of the company. It was hoped that this would bring increased flexibility into the labour market by allowing wages to fluctuate with profits and would provide employees with the incentive to boost the profitability of their firms. But if linking pay to profitability benefits firms by giving stronger incentives to their employees, firms already had an incentive to set up PRP schemes *without income tax relief*.

The only possible case for giving tax relief for PRP schemes was as a temporary measure to overcome firms' and employees' reluctance to try new ideas. After these initial concerns have passed, there is no case for continuing tax relief for PRP. Indeed, this was precisely the reasoning given by Nigel Lawson in his 1986 Budget Speech. He stated that 'there is considerable inertia to overcome, so it might make sense to offer some temporary measure of tax relief to the employees concerned'.

Tax relief for PRP was initially given on half the payments of PRP up to a limit of 20 per cent of the total salary or £3,000, whichever was lower. In 1989, the cash limit was raised to £4,000, and in 1991, the tax relief was extended to total profit-related payments (rather than half). Currently, basic-rate taxpayers receiving PRP will pay up to £960 less income tax (24 per cent of £4,000) than an equivalent employee not receiving PRP. Higher-rate taxpayers pay up to £1,600 per year less income tax. Reviewing the history of tax relief for PRP, firms did indeed show considerable inertia in setting up PRP schemes. Figure 5.4 shows that the number of live schemes grew slowly from 615 in 1988 to 1,277 in 1991. Since then, the numbers have been growing rapidly. The figure also shows, on the right-hand scale, that the number of employees in schemes has seen similarly rapid growth.

**Figure 5.4: Growth of profit-related pay**



Alongside the increase in the number of PRP schemes, the exchequer cost of tax relief for PRP has exploded. Inland Revenue estimates suggest that it has risen from £15 million in 1989/90, through £40 million in 1991/92, to an estimated £1,500 million in 1996-97. If this rate of growth continues, and we have no reason to expect it will not, the cost of PRP to the exchequer will represent well over 1 percentage point on the basic rate of income tax next year. These facts present a compelling case that any inertia on behalf of firms and employees to PRP schemes has been overcome.

But recently there has been evidence of even more compelling reasons for seeking to end tax relief for PRP. If PRP was encouraged to promote flexibility in pay and to relate pay to company performance, many new PRP schemes fail on both grounds. Many employees are now guaranteed at least part of the PRP by their employer, so removing the clear link to profitability. There have even been suggestions that employers are offering 'no-redundancy' packages to entice employees to join PRP schemes, which can only reduce flexibility in the labour market. And when essentially non-profit-making bodies, such as charities and universities, start jumping on the PRP bandwagon, the need to do something about PRP in this Budget becomes urgent.

Tax relief on PRP schemes should never have been allowed to get out of hand in the way it has. But every year, the number of employees benefiting from this tax relief increases, making it more difficult simply to abolish tax relief for all PRP schemes. The parallels with mortgage interest tax relief are striking: while the current system of tax relief for PRP should not have been introduced, abolishing the relief immediately would create genuine losers, much as the abolition of mortgage interest tax relief in one fell swoop would. Abolition could even possibly cause redundancies for those employees whose employment relies on the tax subsidy in PRP. At the very least, the Chancellor should tighten PRP rules to make sure that any new PRP scheme is genuinely related to firms' profitability. He could and should probably go further by announcing a phased abolition. Two methods are readily apparent. First, the cash limit for tax relief could be steadily reduced. This would have the benefit of protecting the gains of poorer employees, for whom 20 per cent of their pay is less than £4,000. Second, the tax relief for PRP schemes could be limited to the lower rate of income tax. This would significantly cut the short-term cost since all basic- and higher-rate taxpayers would lose some of the tax relief. Using either or both of these methods, the sudden losses that would occur if it were abolished outright would be limited.

The sorry saga of the explosion of PRP schemes serves to remind us of some of the practical dangers of using the tax system to change behaviour. The danger is always that the change in individuals' and firms' financial behaviour dwarfs the desired change in real behaviour, at great cost.

## 5.2 Indirect Tax Measures

### *Excise Duties*

In his last Budget, the Chancellor chose to reduce the real level of duties on alcohol because of cross-border trade, and real increases in duty rates on alcohol seem unlikely this year. Higher excise duties on tobacco are seen as an effective way of reducing smoking in line with the government's Health of the Nation targets and real increases in excise duties on cigarettes of 3 per cent a year have been promised up to the year 2000. Below, we discuss in more detail the likely revenue effects of lower alcohol duties and assess the government's policy of using taxes on tobacco as a way of reducing smoking. But first, Table 5.2 presents a menu of duty options for the Chancellor to consider and calculates the overall effect on the price to the customer.

**Table 5.2: The price effects of excise duty revalorisation**

	<i>Beer</i>	<i>Wine</i>	<i>Spirits</i>	<i>Tobacco</i>	<i>Petrol</i>	<i>Unleaded</i>	<i>Derv</i>
<b>Current</b>							
Duty (p)	24	105	554	125	39	34	34
VAT (p)	23	45	166	43	9	9	9
<i>Ad valorem</i>				58			
Price (p)	154	300	1114	289	63	57	57
<b>Uprating 2.1% nominal, in line with inflation<sup>a</sup></b>							
Duty (p)	25	108	566	131	42	37	37
VAT (p)	23	45	168	45	10	9	9
<i>Ad valorem</i>				60			
Price (p)	155	303	1128	299	66	59	60
<b>Uprating 5% nominal<sup>a</sup></b>							
Duty (p)	25	111	582	135	43	38	38
VAT (p)	23	46	171	45	10	9	9
<i>Ad valorem</i>				61			
Price (p)	155	306	1147	30	67	61	61
<b>Downrating 5% nominal<sup>b</sup></b>							
Duty (p)	23	100	526	—	—	—	—
VAT (p)	23	44	161	—	—	—	—
<i>Ad valorem</i>				—			
Price (p)	153	294	1081	—	—	—	—

Notes: Typical prices from HM Customs and Excise are for a pint of bitter (3.9% abv) in on-licensed premises, a 75cl bottle of table wine in a retail outlet, a 70cl bottle of whisky (40% abv) in a retail outlet, a packet of 20 cigarettes, a litre of leaded petrol (four-star), a litre of unleaded petrol (premium) and a litre of Derv fuel (diesel), rounded to the nearest whole penny.

<sup>a</sup>Assumes additional increases of 3 per cent on tobacco and 5 per cent on petrol and Derv.

<sup>b</sup>Calculated only for alcohol duties because of prior commitments to raise duties on tobacco and petrol.

### Towards a Sensible System of Alcohol Taxation

There is no apparent economic rationale behind the current system of excise duty rates applied to different types of alcoholic drink. The traditional economic argument for imposing additional taxes on alcohol centres on the social cost of alcohol consumption. Unless there is strong evidence to suggest that alcohol consumed in the form of spirits is any more harmful than alcohol consumed as beer and wine, a set of duties that taxed the alcoholic content of different types of drink uniformly would make economic sense. This is not what happens under the current system of excise duties, as the figures in Table 5.3 clearly show. In his last Budget, the Chancellor froze the nominal level of excise duties on beer and wine (effectively cutting the real rates of duty) and cut the nominal duty on spirits by 4 per cent, reducing the level of duty on a bottle of whisky by about 25 pence. But the rate of duty per unit of alcohol applied to spirits is still almost twice that applied to beer and wine.

**Table 5.3: Rates of duty per litre of pure alcohol for beer, wine and spirits**

	<i>Beer</i> (3.9% abv)	<i>Wine</i> (12% abv)	<i>Spirits</i> (40% abv)
December 1994 Budget	£10.82	£11.70	£20.60
November 1995 Budget	£10.82	£11.70	£19.78

One anomaly in the system of alcohol duties that the Chancellor did address in his last Budget was the taxation of strong cider. Unlike beer and spirits, which are taxed per unit of alcohol — albeit at different rates — a flat rate of duty applied to all cider, irrespective of alcoholic content. Hence, the stronger the cider, the less the tax rate per unit of alcohol. Introducing a higher tax for cider containing more than 7.5 per cent abv reduces the scale of the problem, although, as Table 5.4 shows, it will still be the case that the duty per unit of alcohol will be lower at some higher strengths of cider than at lower strengths. The same problem applies in the case of wine less than 15 per cent abv, which is taxed at a uniform rate by volume rather than by alcoholic content. Again, the stronger the wine up to this point, the lower the tax rate per unit of alcohol. Introducing a uniform tax rate per unit would eliminate these problems completely.

**Table 5.4: Rates of duty per litre of pure alcohol for cider**

	<i>Cider at:</i>			
	<i>2% abv</i>	<i>4% abv</i>	<i>6% abv</i>	<i>8% abv</i>
1995	£11.89	£5.95	£3.96	£2.97
1996 <sup>a</sup>	£11.89	£5.95	£3.96	£4.46

<sup>a</sup>Change due to come into effect on 1 October 1996.

A uniform rate of duty would also provide clear, simple guidelines on how to tax the new brands of 'alcopops' which have recently been introduced into the market. Currently, those that are primarily beer-based are taxed in the same way as beer, while spirits-based mixed drinks are taxed in the same way as made wine. The rates of duty per unit of alcohol vary between the two. The amount of duty charged on a 30cl bottle of 5 per cent abv beer-based mixed drink, such as Hooper's Hooch, is just over 16 pence. On a 30cl bottle of 5 per cent abv spirits-based mixed drink, such as Metz schnapps-based drink, the customer would pay less than 13 pence duty.

It clearly does not make economic sense to apply radically different rates of tax to drinks that are direct substitutes for each other. It could also be argued that the very fact of wide duty differentials between different types of alcohol has directly contributed to the proliferation of new types of drink by encouraging producers to find ways of selling spirits without having to pay spirits duties. Since the number of new alcoholic soft drinks seems likely to increase — with continuing controversy over the marketing of such products — the pressure will be on Chancellors to address one of the many anomalies that the current system allows, and a switch to a uniform rate may begin to appear increasingly attractive.

### **Alcohol Taxes and the Single Market**

There is a second argument for reducing the duty differential between beer, wine and spirits. Cutting the rate of duty on spirits is less likely to cause tax revenue to fall than a similar cut on beer or wine duties.

The Treasury is currently losing duty revenue as a result of cross-border trade in alcohol. The abolition of all limits on personal imports from 1 January 1993 and the lower duties in neighbouring EU member states (see Table 5.5) stimulated a growth in cross-border shopping, currently estimated to be equal to 3–5 per cent of the domestic drinks market.

But it is not clear that cutting duties will restore the lost revenues. The direct revenue effect will be a fall in the real revenue yield per unit sold. Offsetting this, there is likely to be an increase in domestic demand for alcohol as it becomes cheaper relative to other goods and as the incentive to cross-border shop is reduced. What happens to total revenue yield depends on the balance of these two effects, and, in particular, whether the effect of cutting the real revenue per unit can be offset by increased duty revenue from higher demand. Obviously, the higher the demand response to a given tax/price reduction, the more likely it is that the overall revenue response will be positive.<sup>4</sup>

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<sup>4</sup>For further discussion, see Crawford, I. and Tanner, S. (1995), *Alcohol Taxes and the Single Market*, IFS Commentary no. 47, and *Options for 1996: The Green Budget* (1995), IFS Commentary no. 50.

**Table 5.5: EU excise duties, 1 August 1996**

(ECU per hl of pure alcohol)	<i>Beer</i> (5% abv)	<i>Wine</i> (11% abv)	<i>Spirits</i> (40% abv)
Austria	362	0	755
Belgium	381	346	1,641
Denmark	773	848	3,772
Finland	3,018	2,744	5,327
France	193	31	1,398
Germany	205	0	1,355
Greece	314	0	801
Ireland	1,927	2,408	2,678
Italy	321	0	591
Luxemburg	207	0	1,085
Netherlands	445	464	1,573
Portugal	280	0	762
Spain	168	0	703
Sweden	2,609	2,672	5,316
UK	1,306	1,543	2,388

For spirits, the evidence most favours a cut in real taxation leading to an increase in real revenue yield. The price responsiveness of demand for spirits is fairly high (a 1 per cent cut in price will cause demand to rise by more than 1 per cent) and the current tax on spirits still forms a large proportion of the current price, despite the cut in real duties last year. However, the revenue effects are not likely to be large. In the case of wine, the two revenue effects appear to be finely balanced and the overall effect on revenue could go either way.

In the case of beer — with a low price responsiveness of demand and with current tax forming a smaller proportion of the price than for wine or spirits — it is more likely that a real cut in duties will cause tax revenue to fall. This is even the case if we take into account the additional revenue effects of increased domestic demand (more revenue from income tax and capital gains tax). The total amount of extra revenue (from other, non-duty, non-VAT sources) that needs to be generated per pint of beer sold in order for a cut in duty to lead to an increase in total revenues is more than seven times the amount of duty collected per pint and more than four times the total amount of indirect tax (duty and VAT) raised per pint. Estimates from the Brewers and Licensed Retailers Association<sup>5</sup> suggest that the actual amount of other tax revenue raised is only four-and-a-half times the total amount of duty raised. Furthermore, to the extent that domestic demand for beer

<sup>5</sup>'Facing the facts: memorandum to HM Treasury', 1996, BLRA.

increases at the expense of demand for other goods, the final impact on total revenues will be reduced.<sup>6</sup>

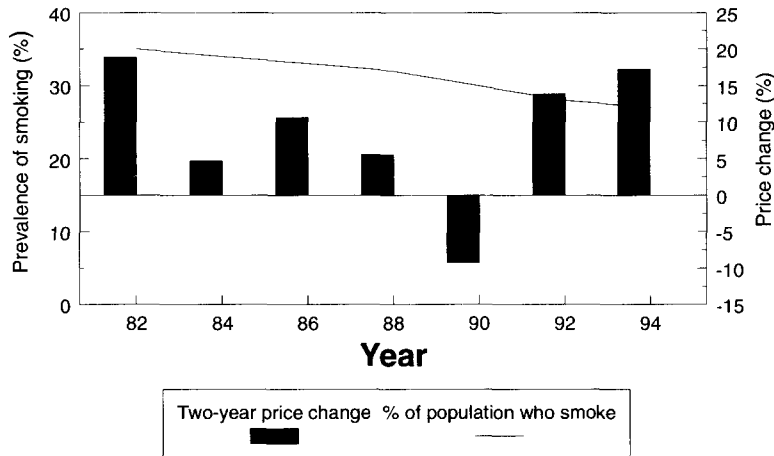
### Tobacco

As part of the government's aim of reducing cigarette smoking to 20 per cent of the population by the year 2000, the Chancellor has committed himself to raising duty on tobacco by at least 3 per cent in real terms each year. This, therefore, is an example of a tax specifically aimed at altering consumer behaviour.

At present, in the UK, cigarettes carry both an *ad valorem* tax and a specific duty. In general, external costs associated with particular goods are unlikely to be connected to the price at which the good retails, and so a specific tax per unit of the good is preferable to an *ad valorem* tax. Specific taxes, though, need to be adjusted to keep pace with inflation, and can face problems in the definition of 'a unit'. For example, the specific tax per cigarette used in the UK has led to the domination of the market by king-size cigarettes, which are likely to contain more toxic substances per cigarette than their standard-sized counterparts.

Figure 5.5 shows recent trends in the proportion of the population who smoke, and price changes to cigarettes.

Figure 5.5: Trends in smoking and cigarette prices



Source: General Household Survey and CSO retail price index.

<sup>6</sup>It is still too early to carry out a full analysis of the effects on real revenues of last year's real cuts in duty rates on beer, wine and spirits. Alcohol revenues are highly subject to seasonal effects — particularly in the case of spirits, where more than twice as much revenue is collected in December than in any other month. We can control for the seasonal effects by comparing the real level of duty revenue in any month with the level 12 months previously. However, this does not enable us to assess the full effects of a year of the lower real duty rates.

Crude analysis points to a downward trend in the prevalence of smoking of 1–2 per cent of the population every two years, which is largely independent of the change in the real price of cigarettes. With 27 per cent of the population smoking in 1994 (the most recent figures available), a yearly decrease in smokers of slightly over 1 per cent of the population would be needed to achieve 20 per cent by the year 2000. With no other changes, the policy of increasing real duties by 3 per cent a year will increase the real price of a packet of cigarettes by roughly 5 per cent over the next two years. This is fairly low by comparison with price increases of recent years, and so we might expect to see real duty increases in excess of 3 per cent.

### ***Motoring Taxation***

One of the government's lines of attack on global warming is increased taxation of motor fuels. In the November 1993 Budget, the Chancellor announced his commitment to increase motor fuel duties by at least 5 per cent a year in real terms as a measure to restrain carbon dioxide emissions from the transport sector. There is little reason to suppose that this measure will not go through this year. Distributionally, raising motor fuel taxation is not regressive (mainly because poorer households are less likely to own a car), although there may be cause for concern over the impact of increasing motor fuel taxation on certain groups, for example low income rural dwellers who have little short-run alternative means of transport other than their car.

### **Diesel**

Standard diesel engines used to produce significantly lower emissions of some other pollutants than conventional petrol engines — around 10 per cent of the carbon monoxide and hydrocarbons and 65 per cent of the nitrogen oxides. However, the advent of catalytic converters for use on petrol engines has more than removed this advantage — petrol cars fitted with a three-way catalytic converter have lower nitrogen oxide and hydrocarbon emissions than diesel cars. Favourable taxation of diesel on the basis of these pollutants is therefore not desirable. Diesel engines also produce considerably greater quantities of black smoke and particulate emissions, which have been linked with respiratory problems. But this is somewhat balanced by the fact that diesel engines are considerably more fuel-efficient than otherwise-equivalent petrol engines. Diesel used to be taxed more favourably than petrol, but its taxation was brought in line with that on standard unleaded petrol in the November 1994 Budget, largely for environmental reasons. If more importance is attached to the effects of particulates, hydrocarbons etc., we may even see an increase in the taxation of diesel over that of petrol.



### **Road fuel gases**

In the last Budget, the Chancellor decreased the duty payable on road fuel gases (compressed natural gas (CNG) and liquid petroleum gas (LPG)) by 15 per cent. The aim was to bring the price of these fuels into line with that of petrol and diesel, thereby making them a viable alternative fuel.

Diesel engines can be converted to run on CNG or LPG. The cost of doing so is a few hundred pounds for cars or light vans, although it is considerably more expensive for larger vehicles — for example, around £20,000 for a bus. Both CNG and LPG emit extremely low quantities of both nitrogen oxides and particulates (up to 70 per cent less than diesel) and the total impact on climate change of CNG and LPG, including methane and carbon dioxide emissions, is below that of diesel.

This situation has many parallels to that of unleaded versus leaded petrol. When unleaded petrol was introduced, it was possible to convert most cars that had recently been built to use unleaded petrol at a minimal cost. To encourage the uptake of unleaded petrol, it has been taxed more favourably than leaded petrol since April 1987, and its market share in petrol sales, since that time, has increased from an almost negligible amount to around 63 per cent.<sup>7</sup> As with unleaded versus leaded petrol, if road fuel gas were cheaper than diesel, the owner of a diesel car would have an incentive to convert the vehicle to use road fuel gas if the discounted savings from using cheaper fuel exceeded the costs of conversion.

Current typical prices for LPG and diesel are around 34p a litre and 57p a litre, respectively. Their effective prices are roughly equivalent, since LPG has only about 60 per cent of the energy content of diesel per litre.<sup>8</sup> For a diesel car with an annual mileage of 24,000km and a fuel efficiency of around 12km per litre, a price differential of 10p in favour of LPG would mean a saving of around £200 a year. Over four years, say, this represents a current lump sum of around £700, using a 5 per cent discount rate, which provides a fair incentive to convert now if this can be done for a few hundred pounds. This would require a reduction in the price of LPG of around 6p a litre, meaning a pre-VAT duty reduction of 5.1p a litre (around 36 per cent of the current duty of 28.17p per kilogram, or 14.09p a litre). France and Germany reduced duty on road fuel gases at around the same time as the UK, also for environmental reasons, but by almost 70 per cent and 60 per cent respectively and from a lower absolute level. An additional 36 per cent reduction in the UK would reduce duty on road fuel gases by about 47 per cent compared with its 1994 level.

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<sup>7</sup>Not all this increase can be attributed to the price differential between leaded and unleaded petrol, since other policy measures have been used in parallel with differential taxation — for example, from October 1990, all new cars had to be able to run on unleaded petrol.

<sup>8</sup>Data supplied by the LP Gas Association.

### **Vehicle Excise Duty**

The fuel efficiency of cars within an engine type (diesel or petrol) is also a determinant of transport-related pollution. As demand is for car-miles, if the use of more fuel-efficient cars can be encouraged, the same distances can be covered using less fuel and therefore emitting less pollution. For petrol cars, emissions depend not only on fuel efficiency but also on the fitting and maintenance of cleaning equipment such as catalytic converters. Whereas taxes on fuel can encourage fuel efficiency, they do not encourage the fitting of 'clean-car' technology. In last year's Budget, the Chancellor stated that the government intended to look into ways of using vehicle excise duty (VED) to encourage low-emissions vehicles. The Royal Commission on Environmental Pollution has argued for VED in Britain to become steeply graduated on the basis of the fuel efficiency of the car when new. The Labour Party has also, in the past, expressed a commitment to differentiating VED on the basis of fuel efficiency and/or emissions standards.

VED is a fixed tax per year on car ownership, currently set at £135 for private cars. VED differentiated according to emissions would probably be superior to one based on fuel efficiency alone, since emission levels depend not only on fuel efficiency but also on the fitting and maintenance of cleaning equipment such as catalytic converters.<sup>9</sup> In addition, VED based on fuel efficiency when new would give no incentive to maintain this efficiency as the car gets older (fuel efficiency has a tendency to decline over the life of a vehicle). Emissions tests now form part of the annual MOT test, so information is already collected that could be used as a basis for a VED differentiated by emissions. But differentiated VED would still be imperfectly related to emissions, since owners of similar vehicles would pay the same amount regardless of yearly fuel use and hence emissions. Conversely, fuel taxation does not distinguish between low- and high-emissions vehicles. However, the fact that there is an imperfect range of fiscal tools with which to tackle a complex problem should not preclude attempts to do so.

Suppose the Chancellor wanted, on average, to raise VED by £5, as he did last year. Using data from the National Travel Survey (1991–93), approximate calculations show that the differentiated system of VED given in Table 5.6 would raise the same revenue as a uniform charge of £140. The National Travel Survey does not contain data on vehicle emissions levels. Engine size was used as the basis for differentiation since it is a proxy for fuel efficiency (larger engines tend to be less fuel-efficient). This calculation is purely illustrative — it is based on a sharply graduated system, and does not distinguish cars fitted with catalysts or take vehicle age into account.

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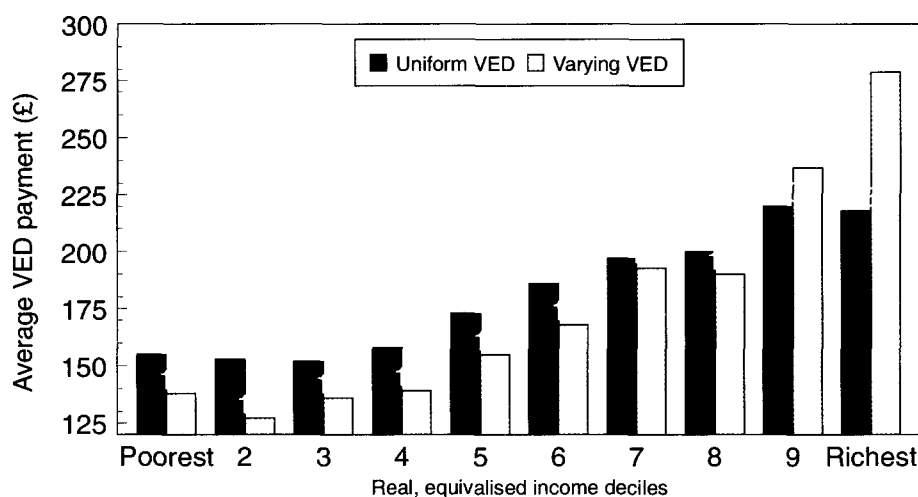
<sup>9</sup>Note, however, that, since 1993, legislation has required all new cars to be fitted with a catalytic converter.

**Table 5.6: A revenue-neutral change in VED**

Engine size (litres)	VED
< 1.2	£20
1.2 – < 1.4	£50
1.4 – < 1.6	£100
1.6 – < 1.8	£200
1.8 – < 2.4	£320
>= 2.4	£475

Figure 5.6 shows the distributional effects on car-owning households that such a change in VED would have. The calculation is based on first-round effects only — that is, changes in behaviour induced by such a VED system are ignored.

**Figure 5.6: Distributional effects on car-owning households of a change in VED**



Whilst measures to encourage vehicle fuel efficiency may have a positive effect on reducing transport-related pollution, they are likely to have the opposite effect on the actual volume of traffic by reducing the cost per mile of vehicle travel. Thus measures to combat pollution may exacerbate the other main externality associated with transport, which is that of congestion. The Department of Transport estimates a growth in motor vehicle traffic of 11–18 per cent by 2000 compared with its 1994 levels. Some form of congestion charging, however, is unlikely to be introduced in the near future, although in a transport Green Paper, published in April this year, the government stated its willingness to consider allowing local authorities to trial congestion charging. Both the government and the Labour Party have rejected the idea of conventional motorway tolls on the grounds that traffic would merely be diverted onto trunk roads. Trials are currently under way investigating the feasibility of the more sophisticated electronic tolling of the

British motorway system, but these are not expected to finish until Spring 1998.

## **5.3 Taxation of Companies**

We expect little change to corporate taxation in the 1996 Budget. The last Budget of a Parliament is not the time to introduce substantial tax reforms, and if the present administration had wanted to reform company taxes, it has had ample opportunity to do so before now.

As always, the Chancellor may be tempted to introduce inexpensive, headline-grabbing measures, but even this seems less likely in a year when he may want to concentrate most of his resources on cutting personal taxes. He might even be tempted to finance bigger personal tax cuts by squeezing more revenue out of the corporate sector, although this is unlikely to involve any transparent increase in the rate of corporation tax or reduction in the rates of the main allowances against corporation tax. It would be less surprising to see technical measures aimed at closing tax loopholes, which companies are believed to be exploiting more effectively now than in the past.

## **5.4 Capital Taxation**

The last decade has seen a major restructuring of the taxation of personal savings in the UK. The introduction and rapid growth of Personal Equity Plans (PEPs), Tax-Exempt Special Savings Accounts (TESSAs) and Personal Pensions (PPs), alongside a diminution in the tax privilege associated with owner-occupied housing, have moved the system closer to one where the effective rate of tax on the return to saving is zero. The arguments for this being the right direction of change are strong,<sup>10</sup> both in practice and in principle, and in last year's Budget, a further step was taken with the move to a 20 per cent tax rate on interest income for basic-rate taxpayers. Although this trend seems likely to continue, it seems unlikely that there will be any major changes here in this Budget. Capital gains tax and inheritance tax are higher on the political agenda, after John Major's statement that he would like to see them both abolished.

### ***Capital Gains Tax***

In 1994/95, some 85,000 people were liable for capital gains tax (CGT), raising £0.8 billion for the exchequer.<sup>11</sup> After the Conservative Party leadership election, John Major stated his desire to see CGT abolished, and this has placed this tax once again on the political agenda.

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<sup>10</sup>See IFS Capital Taxes Group (1994), *Setting Savings Free*, Institute for Fiscal Studies.

<sup>11</sup>*Inland Revenue Statistics 1996*.

CGT is levied on the real gains that arise from the disposal of assets. Only non-inflationary gains that have arisen since March 1982 are subject to CGT at the individual's marginal income tax rate. The tax also has various exemptions and reliefs, of which the most used is the annual untaxed exemption of the first £6,300 capital gain.

While it is true that CGT seems out of place in a system moving ever closer to not taxing the return on savings, its residual role seems likely to persist. Although paid by very few, its complete removal would open up possibilities for tax avoidance that are best left closed. In particular, schemes that artificially transform income into capital gains would generate large benefits in a CGT-free world, as they did when the top rate of income tax was 98 per cent and the CGT rate 30 per cent. The combination of roll-over relief, retirement relief, indexation and the annual allowance provides substantial mitigation of tax liabilities already, and while further piecemeal reform to this already extraordinarily complex tax is possible, not least because of the weight of lobbying, the purely economic case for abolition seems weak.

### ***Inheritance Tax***

At the same time as expressing his desire to abolish capital gains tax, John Major expressed a desire to abolish inheritance tax (IHT). This tax, levied on the value of an individual's estate at death or on assets transferred in the seven years before death, is forecast to raise £1.5 billion in 1996/97. There are numerous exemptions and reliefs, the most important being the allowance of the first £200,000 of an estate, transfers of assets between spouses and gifts to charities. These reliefs mean that the vast majority of estates are not subject to IHT. For those who died in 1993/94, only 6.6 per cent of the estates notified for probate were subject to IHT,<sup>12</sup> and only 58 per cent of estates with a net value greater than £200,000 were taxed. In 1993/94, only 17,363 estates were taxed.

Inheritance tax is the only major UK tax on wealth, and as such it could be seen as a useful tool of government redistributive policy, ensuring that wealth and unearned influence associated with that wealth is not concentrated amongst the same families across generations. But inheritance tax does *not* fulfil this role very effectively. The structures in IHT ensure that there is no tax incentive to spread wealth amongst recipients, and the ease of avoidance of the tax means that those paying are often simply the wealthy but badly advised.

The Chancellor faces four options for the reform of IHT short of its abolition.

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<sup>12</sup>The number of inheritance tax payments as a proportion of total deaths would be significantly lower, as the figure quoted excludes estates either so small or held in such a form as to make a report to the Capital Taxes Offices unnecessary. Source: *Inland Revenue Statistics 1996*.

***Reduce the Rates***

Inheritance tax is currently charged at 40 per cent on transfers at death and lower rates on transfers in the seven years before death. All but 2 per cent of IHT is charged at death. Each one percentage point reduction in the 40 per cent rate would cost around £15 million.

***Increase the Threshold for Inheritance Tax***

Raising the threshold from £200,000 would exempt more estates altogether and is a relatively cheap option. Only £198 million was collected in 1993/94 from estates valued at under £300,000, although the eventual cost of such a policy would be higher as this figure only includes IHT assessed at death.

***Exempt Housing from Inheritance Tax***

One of the objections to IHT often cited is that the family home has to be sold to meet the tax demand. This situation would be avoided if housing were exempted, UK residential building comprises 39 per cent of an estate's value, on average, so the direct cost of this measure would be in the region of £600 million. This reform would create huge distortions because it would give strong incentives to people to maximise their wealth held in property, just at the time when trading down might be the most appropriate action for their needs. The corollary of this is, of course, that it would ensure an inefficient use of the UK housing stock.

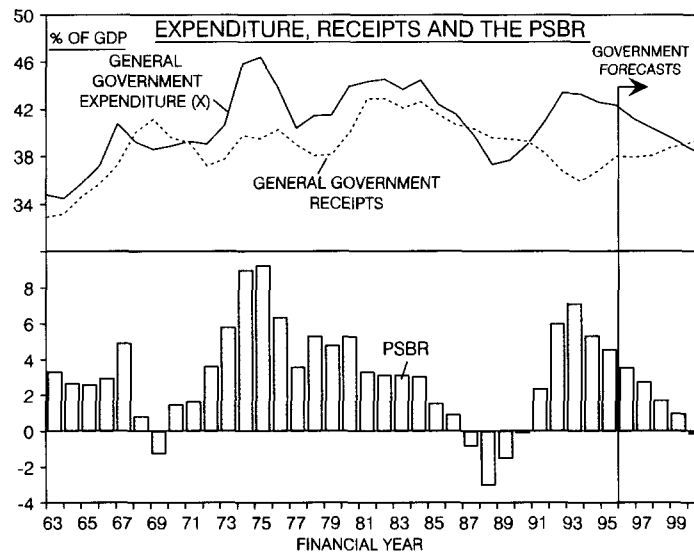
***Move towards a Donee-Based Tax***

If inheritance were taxed on the donee (with suitable allowances) rather than the donor's estate, the inheritance tax system would give an incentive for donors to spread their lifetime assets more widely, which could have desirable redistributive consequences. This policy would not contradict a 'cascade of wealth flowing down the generations' but must be viewed as highly unlikely.

## 6 Issues in Public Spending

Much of the drop in the PSBR in the government's fiscal plans is achieved by the strict control of public expenditure (see Figure 6.1). Last year's Financial Statement and Budget Report envisaged underlying growth in government spending averaging just  $\frac{1}{4}$  of a per cent a year in real terms between 1995/96 and 1999/2000, consistent with a four percentage point fall in the ratio of underlying general government expenditure to GDP from 42 per cent to 38 per cent. If successful, the government will achieve its stated aim of reducing public spending to less than 40 per cent of national income. For the Conservatives, the control of public spending will remain a key aim if they win the general election. According to the Prime Minister, 'the case for smaller Government is as much a moral case as an economic one'.<sup>1</sup> The Labour Party has been less specific in its objectives for public spending, concentrating instead on rules for the overall level of borrowing. However, Labour's desire to exercise firm control over spending is implicit in its efforts to shed an image of a party favouring higher taxes; hence Labour's assertion: 'We will set strict rules for spending and borrowing. We will be wise spenders, not big spenders'.<sup>2</sup>

**Figure 6.1: Trends in government borrowing**



In this chapter, we examine whether a sustained drop in the ratio of public spending to GDP is feasible. A decline in the ratio is not entirely dependent on the strict observance of the government's spending plans. The cyclical position of the economy is also important. Provided output is below trend, the ratio would decline as the output gap is eliminated even if real government spending is growing in line with the long-term trend growth in real GDP of  $2\frac{1}{4}$  per cent a year. If the output gap is as high as 3 per cent, as suggested in

<sup>1</sup>Rt. Hon. John Major, 'Choice and freedom for all: the moral case for a smaller state', the Spectator Lecture, 18 September 1996.

<sup>2</sup>*New Labour, New Life for Britain*, the Labour Party, July 1996.

Chapter 3, the cycle would be responsible for reducing the ratio (and the PSBR) by up to 1½ per cent of GDP.

Besides the cyclical drop in the ratio of public spending to GDP, there are two potential sources of upward pressure on spending — those areas that have been squeezed hardest in the past few years, and pressures to increase spending on front-line services. On the first of these, there seem to be no immediate pressures for a sharp rebound in spending. Pay rises in the public sector have broadly kept pace with those in the private sector. Cuts in public investment will be met partly by additional spending under the Private Finance Initiative, although longer-term upward pressures may exist. Local authority expenditure is constrained by the highly geared impact that increases in spending have on council tax bills.

The control of public spending depends ultimately on whether expenditure in the three largest areas — social security, health and education — can be contained. These areas now account for 60 per cent of overall spending, up from 50 per cent in 1978/79. The government has taken steps to limit the growth of social security; linking the uprating of benefits to prices rather than earnings should be sufficient to stabilise the share of social security in GDP, even if the number of claimants continues to rise. In the process, the government has effectively begun the privatisation of future pension provision. Similar choices will need to be made in health and education. These are classic ‘superior’ goods — they have an income elasticity greater than one: as individuals and countries grow richer, they seek to spend a higher proportion of total income on retirement, health care and education. The fundamental issue is how the government’s objective of achieving a declining share of spending in GDP, or even a stable one, can be squared with maintaining the provision of these front-line services at a level and standard that the public expects or needs. These are choices that no political party has yet faced up to.

## **6.1 Recent Public Expenditure Control**

Since 1992, the government has adopted an explicitly ‘top-down’ approach to the control of public spending. Each summer, the Cabinet agrees ceilings for ‘control total’ spending in each of the next three years. A senior Cabinet Committee, EDX, then oversees the allocations to departments. The control total covers about 85 per cent of total public spending and excludes the main cyclical elements of spending — social security benefits directly related to unemployment, and debt interest payments — as well as privatisation receipts and various accounting adjustments. The ceilings are set in cash terms but are intended to reflect an average real growth rate of no more than 1½ per cent a year. This is to ensure that, on the government’s assumptions about the underlying growth of spending outside the control total, real growth in public spending is no higher than 2 per cent a year over time, ensuring the ratio of general government expenditure to GDP declines over time. (The government actually expresses its medium-term objective for this ratio in terms of GGE(X), defined as general government expenditure excluding privatisation receipts, expenditure financed from the National Lottery and receipts of interest and dividends. Further details on how the spending plans are presented are given in Box 6.1.)

In principle, there are several advantages to the post-1992 system. Prior to 1992, the annual public spending round was conducted largely in a series of bilateral negotiations between the Treasury and each spending department. This made it difficult for the



government to take a strategic decision on the overall level of public spending or the priorities within the total. Furthermore, by excluding the main cyclical elements of spending, the new system should ensure that the economic cycle does not have a destabilising impact on other public spending programmes. Under the old system, the automatic rise in cyclical spending during recessions tended to crowd out spending on other programmes, particularly public investment. More seriously, during periods of rapid growth, there was a tendency for discretionary spending to rise more rapidly under the cover of falling cyclical spending.

**Box 6.1: GGE(X), the control total and the reserve**

The overall spending measure relevant for the PSBR is general government expenditure (GGE), covering all expenditure by central and local government. Three adjustments are made to obtain the government's actual target measure for public spending, known as **GGE(X)**. First, privatisation proceeds are excluded (these count as negative expenditure in GGE); second, expenditure financed from the proceeds of the National Lottery is excluded; third, debt interest is measured on a net rather than a gross basis. The government's medium-term objective is to reduce the share of GGE(X) in GDP to below 40 per cent. GGE(X) was first introduced as a spending target in last year's Budget. Previously, the target had been expressed in terms of GGE excluding privatisation proceeds. The move to GGE(X) has made the government's medium-term target marginally easier to achieve.

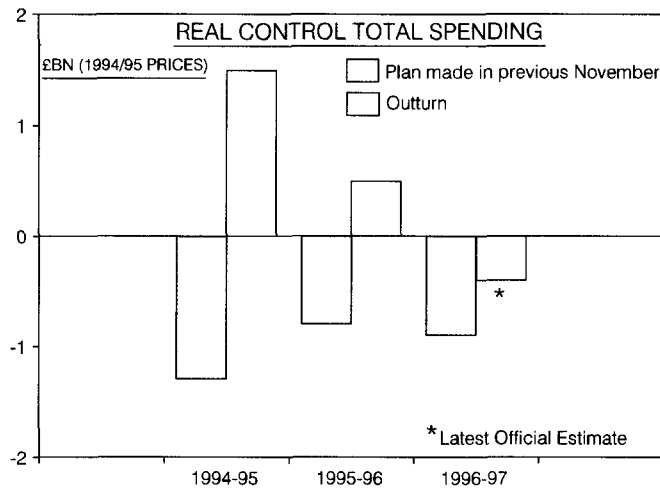
For the purposes of planning, the government focuses on a narrower spending target, known as the **control total**. This makes up about 85 per cent of GGE(X), and excludes the most cyclical parts of public expenditure — namely, cyclical social security payments, and debt interest payments. Some accounting adjustments are also excluded from the control total but included within GGE(X). The spending plans set out in the Budget show not only the overall level of the control total in each of the next three years, but also how it is distributed between different spending departments.

In order to allow some flexibility to react to unanticipated events, each year's planned control total includes a **reserve**. This is not allocated to individual departments but is set aside for unforeseen spending requirements. At each successive Budget, as the spending year in question approaches, a portion of the reserve is either allocated as extra funding to the spending departments or shed from the spending plans altogether. In the forthcoming Budget, it is likely that considerable extra funds will be allocated from each year's reserve in order to pay for the cattle cull arising from the BSE crisis.

On the face of it, the post-1992 system of expenditure control has worked very successfully. The cash plans for the control total for the year ahead have been met in each of the last three years. The story is slightly different when the plans are expressed in real terms, as Figure 6.2 shows. In 1994/95 and 1995/96, there was a considerable overshoot in the growth of real control total spending compared with the plans set out in the previous year's Budget. This is because inflation has persistently turned out lower than the government expected. The same seems to be happening in the current financial year.

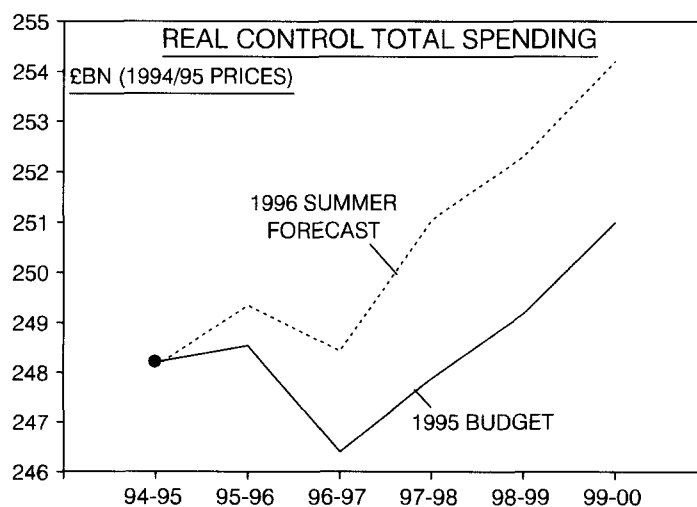
Last November, the government forecast a 0.9 per cent real decline in control total spending this year. On its revised inflation forecast in the Summer, the same cash plans imply only a 0.4 per cent decline.

**Figure 6.2: Planned changes and out-turns in real control total one year ahead**



Within any financial year, once money has been allocated to departments, it is difficult to claw back any unintended additional real increase in spending due to lower-than-expected inflation. The government's response has been to claw back the money from the plans for future years. In each of the last four years, the government's spending plans have been reduced below those set out in the previous year not just in cash terms but in real terms too. To keep control total spending in 1996/97 at the same real level intended in last year's Budget, on the inflation projections contained in the Treasury Summer Economic Forecast, the Chancellor would need to lop around £3½ billion off next year's cash plans in the forthcoming Budget (see Figure 6.3).

**Figure 6.3: Real control total spending — a comparison of government projections in November 1995 and July 1996**



Faster real growth in public spending, coupled with slower growth in real GDP, has meant that the decline in the ratio of GGE(X) to GDP, hereafter referred to as the

GGE(X) ratio, has been slower than the government expected last year. In the 1995 Budget, the government forecast a fall in the GGE(X) ratio from 42.1 per cent in 1995/96 to 39.7 per cent in 1997/98, thereby attaining its objective of reducing public spending to less than 40 per cent of national income. However, the Treasury's Summer Economic Forecast (SEF) showed a drop in the ratio to only 40.4 per cent in 1997/98.

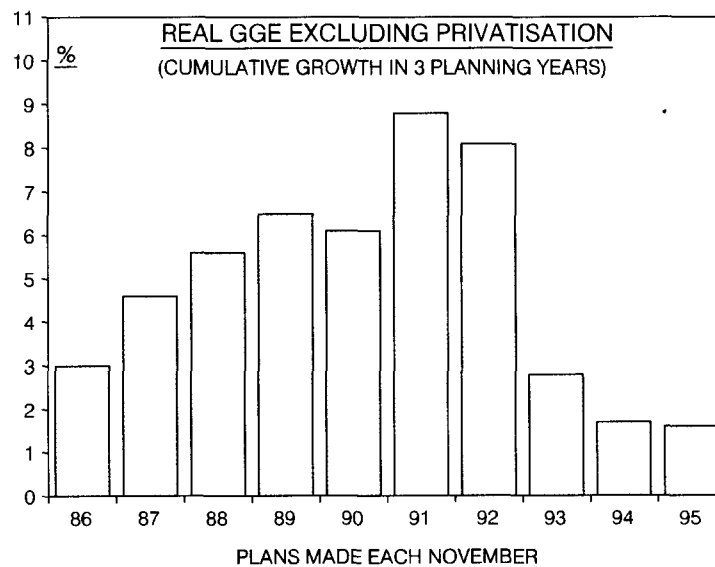
The government's main spending plans are set out in Table 6.1. These have become progressively tighter in recent years, but the restraint envisaged last year was unusually great (see Figure 6.4). Between 1995/96 and 1999/2000, the plans set out in the 1995

**Table 6.1: The government's main public spending plans<sup>a</sup>**

	1995/96	1996/97	1997/98	1998/99	1999/2000
<i>Control total (£ billion)</i>					
1995 Budget	255.5	260.2	268.2	275.6	283.0
1996 SEF	255.6	260.2	268.2	275.6	283.0
<i>GGE(X) (£ billion)</i>					
1995 Budget	299.6	306.1	315.5	324.0	332.0
1996 SEF	299.6	306.8	317.1	326.8	334.8
<i>Real control total (% change)</i>					
1995 Budget	0.1	-0.9	0.6	0.5	0.7
1996 SEF	0.5	-0.4	1.1	0.5	0.7
<i>GGE(X) ratio (%)</i>					
1995 Budget	42.1	40.6	39.7	38.7	37.9
1996 SEF	42.3	41.2	40.4	39.6	38.8

<sup>a</sup>Beyond 1997/98, the SEF 1996 forecast has been inferred from the 1995 medium-term Budget assumptions.

**Figure 6.4: Rolling three-year cumulative growth in real public spending plans**



Budget implied real growth averaging around ¼ of a per cent a year in both control total spending and GGE(X). Even allowing for lower-than-expected inflation in each of the

next two years, the plans still envisage real growth in control total spending averaging only ½ a per cent a year in each of the next four years. This would be sufficient to reduce the GGE(X) ratio to just under 39 per cent by 1999/2000.

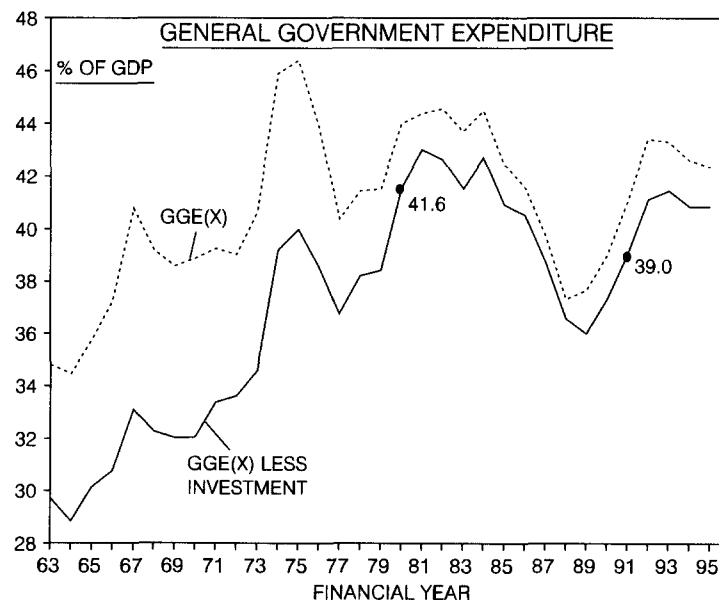
The severe restraint implied in the government's spending plans raises a number of questions. Most importantly, are the plans realistic? If not, where are the main pressures for additional public spending likely to come from? What would this imply for the share of government spending in GDP and the PSBR? We address these questions in the rest of this chapter.

## 6.2 Public Spending and the Economic Cycle

Before considering whether the government's public spending plans are attainable, it is important to recognise that developments in the GGE(X) ratio will be determined as much by the prospects for the denominator, i.e. GDP growth, as for the numerator.

Figure 6.5 sets recent and planned developments in the GGE(X) ratio in a historical context. The ratio was on a strongly rising trend during the 1960s and the first half of 1970s, peaking in 1975/76 at 46.5 per cent. This was a period of increasing state intervention in industry and one in which there was a general expansion in the provision of public services. Spending was cut sharply in 1976/77 and 1977/78 following the IMF adjustment programme, with the axe falling mainly on public investment. If investment is excluded, it is clear that the underlying upward trend in the GGE(X) ratio was not arrested until the early 1980s. There is evidence of a slight downward trend emerging since the early 1980s although this is masked to some

**Figure 6.5: GGE(X) as a ratio of GDP including and excluding public investment**

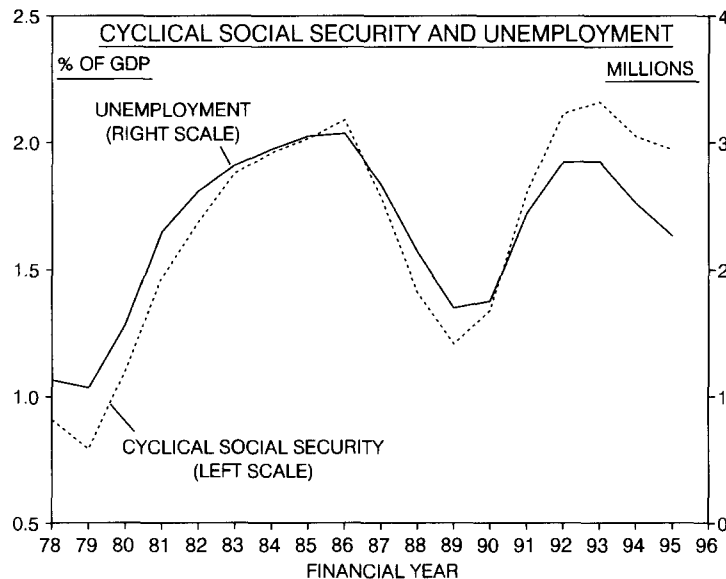


extent by the sharp fall that took place during the boom of the late 1980s and the equally steep rise during the recession of the early 1990s. A comparison between 1980/81 and

1991/92, two years that are roughly cyclically comparable, shows a drop in the GGE ratio of three percentage points, or 2.6 per cent if public investment is excluded.

The GGE(X) ratio has fluctuated strongly in response to the economic cycle and it is important to take this into account in any analysis of medium-term trends. Peaks in the ratio have occurred during recessions, while the ratio has fallen during periods of stronger growth. There are two reasons for this cyclicality. First, some public expenditure is counter-cyclical. Unemployment benefits, for example, rise during recessions and fall during periods of above-trend economic growth. The close relationship between unemployment and the share of cyclical social security spending in GDP can be seen in Figure 6.6. Second, a key source of fluctuations in the GGE(X) ratio will be variations in GDP growth, as many items of government spending are unlikely to display much cyclical variation. An obvious example is the basic state pension, but most of the control total (covering around 85 per cent of public expenditure) falls into this category. Indeed, the control total was designed to exclude the most cyclical elements of spending.

**Figure 6.6: Unemployment and cyclical social security spending**



Prospective developments in the GGE(X) ratio are therefore dependent on both the underlying growth in public spending and the cyclical position of the economy relative to trend. It is helpful to examine these two effects separately. Suppose the control total is rising in line with the long-term trend of the economy, at around 2.25 per cent a year in real terms. If the economy is growing at trend, then the GGE(X) ratio should remain broadly stable. Now suppose an output gap exists. If the output gap is 1 per cent, then the GGE(X) ratio will fall by around 0.35 per cent as the gap is closed, in line with the share of the control total in GDP. The ratio will fall further if spending on cyclical social security and debt interest drops as a result of the higher output. As a rule of thumb, the Department of Social Security estimates that each 100,000 drop in unemployment will curb cyclical social security spending by around £375 million a year. In a paper published last year, the Treasury estimated that, in the long run, a 1 per cent increase in output

relative to trend will reduce the GGE(X) ratio by around 0.5 per cent as a result of these various factors.<sup>3</sup>

We end this section by considering how much the GGE(X) ratio will fall 'automatically', given our estimates of the size of the output gap. In Chapter 3, we argued that the output gap might reasonably be anywhere between zero and 3 per cent. If the output gap has already been eliminated, then there is obviously little scope for a sustained reduction in the GGE(X) ratio for cyclical reasons. If we take the upper end of the range and assume that the output gap will be eliminated by 1999/2000, the economic cycle could be responsible for reducing the GGE(X) ratio by around 1½ percentage points — from 41.3 per cent in 1996/97 to a little under 40 per cent (see Table 4.4 in Chapter 4). On our projections for receipts, this would leave the PSBR running at around 1–1.5 per cent of GDP in 1999/2000 — only slightly higher than that required to hit the golden rule and to meet the conditions of the proposed EMU Stability Pact.

Thus, provided the real control total grows no faster than the underlying trend growth in real GDP (i.e. 2¼ per cent a year) and provided there is still a long-term output gap of around 3 per cent, the government could in principle rely on the present cyclical position of the economy to reduce the PSBR to a broadly satisfactory level. As we have already seen, the government's public spending plans are much tougher than this. This provides some comfort if the output gap turns out to be smaller than 3 per cent. Alternatively, if the output gap is this large, it means that some slippage in the public spending plans would be possible without causing too much damage to the outlook for the PSBR. A third possibility, if the public spending plans are attained, is that the PSBR could be eliminated or taxes could be reduced. It is also worth remembering that, up until the early 1980s, there was an underlying upward trend in the GGE(X) ratio. This has been arrested over the past 15 years, partly by cutting public investment, partly by strict control over public sector pay and other running costs and partly by curbing the growth in social security. If any of these prove unsustainable, then it may not take long before pressures emerge for public spending to grow faster than GDP again.

## **6.3 The Prospects for Public Spending: Can Low Spending Growth Be Maintained?**

### *Comparison with the 1980s*

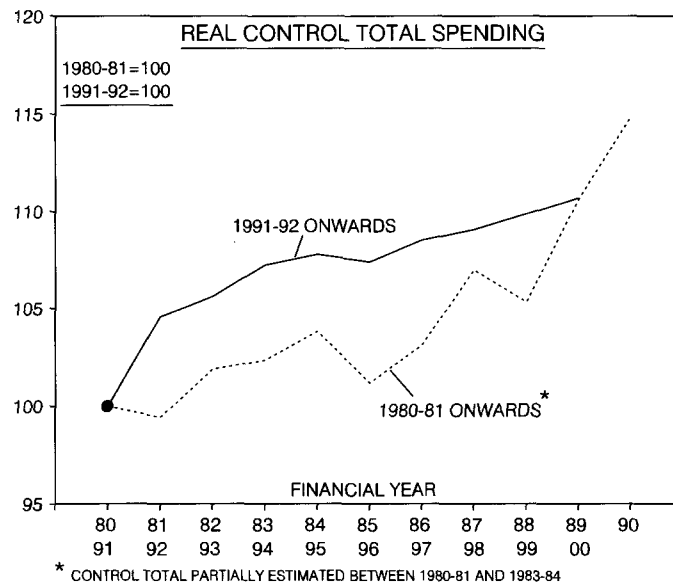
In assessing the prospects for public spending, a useful starting-point is to compare recent out-turns and the government's plans with the experience of the 1980s. Figure 6.7 shows developments in real control total spending starting from two comparable points in the economic cycle — 1980/81 and 1991/92. Between 1991/92 and 1995/96, control total spending rose by 7.8 per cent in real terms (or almost 2 per cent a year), although the bulk of the increases were concentrated in the first two years of this period. This is twice as fast as the increase during the comparable period of the early 1980s. Viewed in this way, public spending control in the current economic cycle has not been particularly stringent. Over the next five years, the government's latest economic forecasts imply a further 3 per cent cumulative real increase in the control total. Interestingly, this would bring it exactly

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<sup>3</sup>*Public Finances and the Cycle*, Treasury Occasional Paper no. 4, September 1995.

into line with the level reached at the same stage in the last cycle. Thus, if the government can match its earlier performance, its current spending plans may just be attainable.

**Figure 6.7: Real control total spending over the last two cycles**

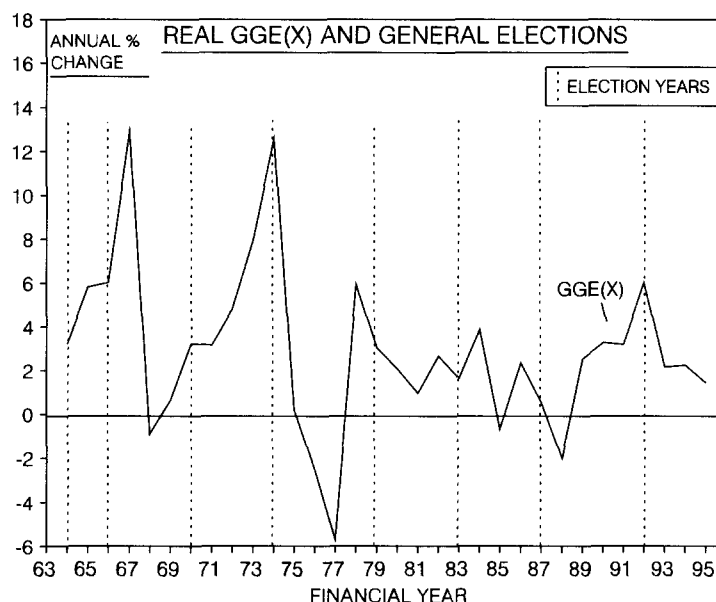


### ***General Elections and Spending Pressures***

A striking feature of Figure 6.7 is the explosion in the real growth of the control total in the late 1980s and early 1990s. In the three years before the last general election and the one year after, the control total increased by 16 per cent in real terms while real GDP stagnated. With the next election imminent, can we expect spending to shoot up again? Historical experience provides no clear guide. There have been occasions, apart from 1992, when public spending has risen rapidly around the time of the general election. As Figure 6.8 shows, 1974 is the most striking example. Public spending also rose sharply in the run-up to the 1979 election, in part reflecting a rebound after the IMF induced cuts in 1977. The 1983 election saw steady real spending growth no different from the years surrounding it. Spending was roughly frozen in real terms the year of the 1987 election whilst falling rapidly as a share of GDP.

Recognising that predictions for spending growth in the next couple of years cannot be inferred from past elections, a more fruitful approach is to look directly at sources of potential upward pressure on spending. These fall into two categories — areas that have been squeezed hardest in the past few years and pressures to increase spending on front-line services. We look first at whether control can be sustained in areas in which spending has recently been squeezed. These cover running costs and public sector pay, public investment, and local authority capping. We then go on to consider the prospects for the three largest areas of spending — namely, health, education and social security.

Figure 6.8: Growth in real GGE(X) in general election years



Source: *Public Expenditure Statistical Analyses 1996–97*, Table 1.1.

## 6.4 The Prospects for Public Spending: Recent Pressures

### *Running Costs and Public Sector Pay*

In its attempts to reduce spending without hitting services, the government has cut the provision made to departments to cover running costs by almost £1 billion in real terms since 1992/93. By 1998/99, the government plans to cut running costs by a further £1.9 billion, or 12 per cent in real terms.

Staff costs account for around one-half of the running costs of the major departments. This means that success in cutting running costs as planned depends to a large extent on how well the current policy of public sector pay control can be sustained. In the last three years, there has been a freeze in the overall paybill, and in the government's latest submission to the pay review bodies, the Chancellor once again recommended that 'any increases in pay should be at least offset by improvements in efficiency or productivity ... pay increases have to be earned and not regarded as an automatic right'.<sup>4</sup>

Pay is not just an important part of the costs of administration of the public sector; it is also the major cost in the provision of key public services, particularly health and education. The National Accounts contain a more comprehensive measure of the public sector paybill than that contained in Box 6.2. This covers the wage costs of all workers employed directly by the public sector, and amounted to £95.8 billion in 1995.

<sup>4</sup>HM Treasury News Release 139/96, 17 September 1996.



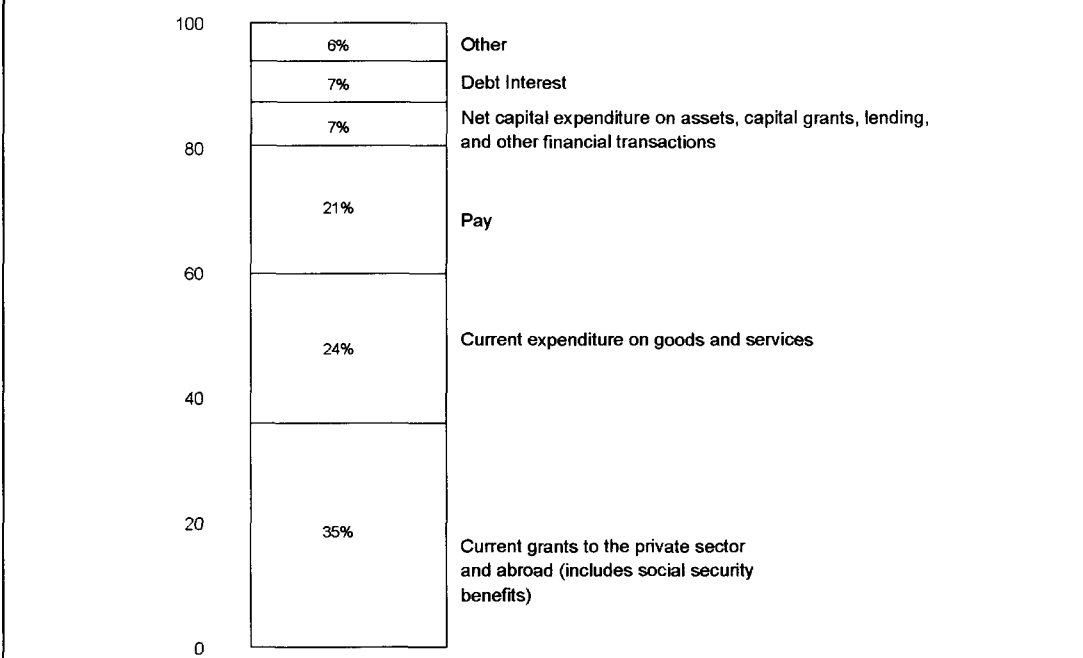
The size of the public sector paybill shot up in 1992 but it has since fallen in real terms by about £1 billion. As Figure 6.9 shows, the paybill has been reduced to below that of the mid-1980s. An obvious concern is whether the current policy of public sector pay restraint will lead at some point to a period of pay ‘catch-up’ during which the public sector paybill spirals, at a serious cost to public spending control.

**Box 6.2: Public spending by economic category**

Current expenditure on transfers (mainly social security payments), goods and services, and public sector pay comprises the largest part of public spending when broken down by economic function. Capital expenditure accounts for about 7 per cent of overall spending.

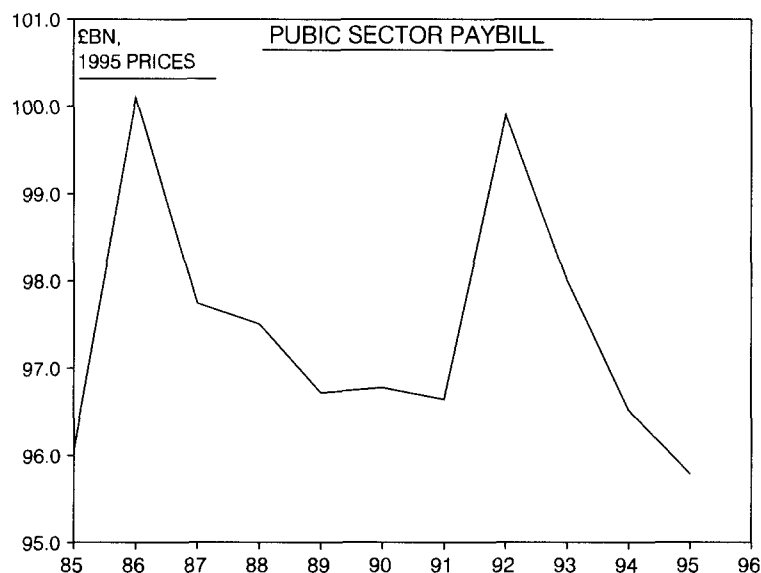
The share taken up by pay within this breakdown (21 per cent) is a considerable understatement of the importance of wage costs in public spending. This is because the bulk of the government’s spending on the goods and services that it buys in, its spending on capital projects, and the health-care services ‘purchased’ within the internal market in the NHS is mainly to cover wages. For example, pay accounts for around two-thirds of overall hospital costs but health-care services are counted as current expenditure on goods and services in the breakdown below. The size of the public sector paybill is discussed more fully later in this section.

**GGE(X) by economic category (out-turn 1994/95)**



Source: *Public Expenditure Statistical Analyses 1996–97*, Table 1.6.

**Figure 6.9: The public sector paybill**



Source: *United Kingdom National Accounts Blue Book*, 1996, Table 2.6, put into 1995 prices using the GDP deflator.

### Wage Settlements in the Public and Private Sectors

In the past, there have been occasions when public sector pay growth has fallen behind that of the private sector, and a period of substantial wage ‘catch-up’ has ensued. Catch-up has occurred either because the public sector has to raise wages to attract suitable employees or because public sector employees have pushed for comparable pay levels. One clear example of this was the wage settlements resulting from the Clegg Standing Commission on Pay Comparability convened in the late 1970s, which addressed the issue of wage relativities directly, and led to a series of catch-up pay awards for a large number of public sector workers in the early 1980s. In a detailed study of the pay of public sector workers in Britain from 1970 to 1992, Elliot and Duffus<sup>5</sup> found a pattern of ‘discrete and sometimes substantial improvements in relative pay [of public sector workers] followed by a steady, and often protracted erosion of relative pay’ (compared with those in similar occupations in the private sector).

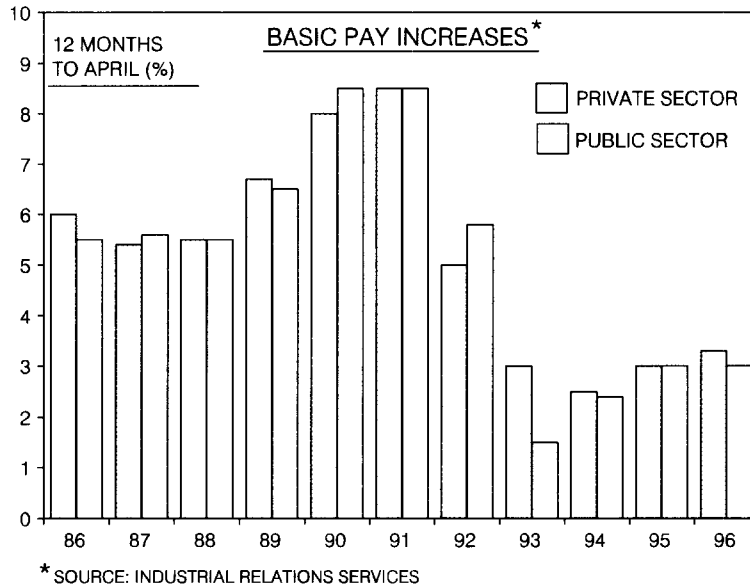
However, the government’s paybill freeze of the last three years has not resulted in public sector pay settlements significantly lower than those in the private sector. According to Industrial Relations Services, although basic pay settlements in the public sector fell behind those of the private sector for a period between September 1992 and April 1994, pay deals since then have been at roughly similar levels in the two sectors. The ‘norm’ of 3 per cent for public sector workers that emerged in 1995<sup>6</sup> was on a par with pay rises in the private sector, although evidence is emerging

<sup>5</sup> Elliot, R. F. and Duffus, K. (1996), ‘What has been happening to pay in the public-service sector of the British economy? Developments over the period 1970–1992’, *British Journal of Industrial Relations*, vol. 34, no. 1, pp. 51–85.

<sup>6</sup>Median annualised pay increases; see Industrial Relations Services, ‘Public sector pay review’, *Pay and Benefits Bulletin*, 410, 15 October 1996.

that the most recent private sector wage awards have slightly exceeded those in the public sector (see Figure 6.10).

**Figure 6.10. Pay settlements in the public and private sectors**



Information on basic pay settlements does not tell us how overall remuneration packages in the public and private sectors have changed. However, data from the New Earnings Survey on changes in average gross hourly earnings suggest that public sector employees have not fallen behind their private sector counterparts in recent years. After a period of faster average public sector pay growth in the early 1980s, mean wages in the public and private sectors have grown at roughly the same rate during the mid-1980s, whilst over the 1990s, mean hourly pay has increased faster in the public sector than in the private sector. To some extent, this is a compositional effect: contracting out of major services has shifted some of the lowest-paid public sector workers into the private sector. Even allowing for this, average earnings in the public and private sectors appear to have grown at similar rates during the 1990s. This suggests that a period of public sector wage catch-up need not be imminent.

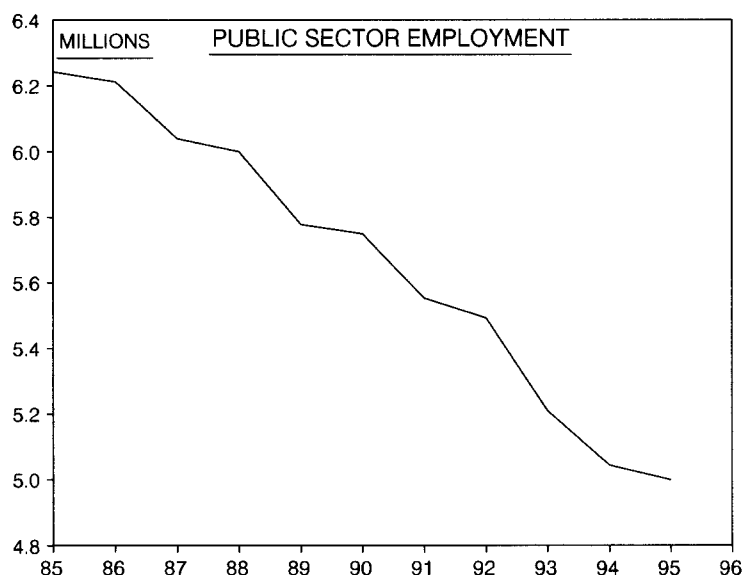
### Changes in Public Sector Employment

The main way in which the paybill has been reduced, whilst at the same time pay increases for public sector workers have been maintained at rates broadly comparable with the private sector, has been through the shedding of public sector staff. Public sector employment has fallen from 6.2 million in 1985 to 5 million in 1995 (see Figure 6.11).

Much of the reduction in public sector employment has simply represented a shift in employees to the private sector, through privatisation or classification changes (the latter applies particularly to education). Between them, these account for more than half of the employment reductions since 1985, and although this has been responsible for a decline in the public sector paybill, it has not necessarily contributed to the

control of public expenditure in any meaningful way. Another contributory factor has been the widespread use of competitively tendered contracts for the delivery of local and hospital services by the private sector. If, as has often been argued, cost reductions are largely achieved through lower wages paid to contracted workers, then contracting out results in genuine savings to the exchequer. However, unless there is additional scope for cost reductions, they simply imply a one-off downward shift in the level of public spending and do not guarantee future savings.

**Figure 6.11: Public sector employment**



Source: *Labour Market Trends*, August 1996.

Nevertheless, there has been a considerable reduction in public sector employment over and above these transfers to the private sector. In particular, central government has shed many of its staff:<sup>7</sup> the number of home civil servants has fallen by 63,000 since 1992/93, and is projected to fall by a further 50,000 by 1998/99. The sustainability of the government's public sector pay policy is crucially dependent on its ability to continue to shed public sector employees.

### Procurement

Another area that has come under recent scrutiny has been the way in which departments buy in goods and services from outside the public sector, a process known as procurement. Again, whilst procurement makes up a large part of departments' running costs, the total procurement budget covers a far wider area than just the running costs of departments. Besides expenditure on pay and on benefits, most of the rest of central government spending, at about £40 billion, plus a further £20 billion of spending by NHS trusts, is on procurement. In a White Paper published in 1995, the government set out a 'new strategy' for procurement designed

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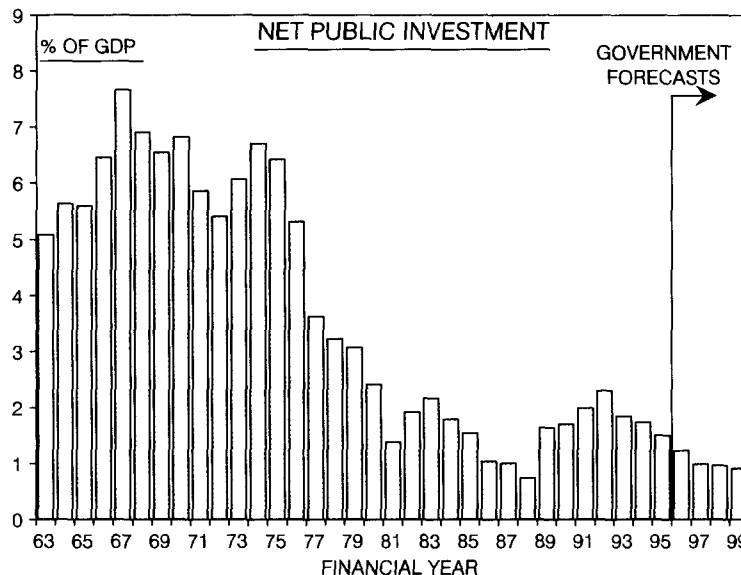
<sup>7</sup>The move to NHS hospital trust status has involved the reclassification of about 1 million employees from central government to public corporations. The employment reductions in central government described here are on top of these classification changes.

to make additional savings to the £2 billion already estimated to have been saved since 1984. An important strand of this strategy was to encourage purchasers to use private finance in order to achieve cost savings. There are tentative signs that this is bearing fruit. Between 1990/91 and 1994/95, the government consumption implicit price deflator increased about 1 percentage point a year faster than the GDP deflator. In 1995/96, it increased by 0.2 percentage points less.

**Public Investment and the Private Finance Initiative**

Part of the control in public expenditure has been achieved by cuts in public investment. Between 1992/93 and 1996/97, net public investment is planned to decline from 2.3 per cent of GDP to 1.2 per cent of GDP, and to 0.8 per cent of GDP by the end of the decade. For a number of years, public investment has been running at very low levels, particularly compared with the 1960s and 1970s (see Figure 6.12), and an obvious concern is whether this will lead to a significant shortfall in social infrastructure creation.

**Figure 6.12: Public investment as a share of GDP**



One solution to this could be a pick-up in the number of projects undertaken under the Private Finance Initiative (PFI) in which the government purchases public services from privately owned capital (see Chapter 7 for a full discussion of the PFI). Whilst it is impossible to know what public investment would have been in the absence of the PFI, it is clear that the PFI is being used to substitute privately financed assets for publicly financed assets. Cuts in public investment plans have been greatest in those departments that have been most successful in attracting private finance. The transport budget, for instance, is set to shrink by 30 per cent between 1994/95 and 1996/97.

If PFI capital spending comes close to making up for reductions in public investment, there will be less need for concern over any shortfall in social infrastructure creation. But there is a danger that the PFI might lead to an inappropriate mix of capital

spending projects. If many more capital projects than are currently planned take place under the PFI, government departments will have to take care not to burden themselves with unsustainable long-term public spending commitments. The extent of the future public spending commitments already implied by current PFI projects are set out in Chapter 7.

### ***Local Authorities***

#### **The End of Capping?**

Although very few local authorities are formally capped, in 1996/97 77 per cent of local authorities set their budgets at the centrally-determined cap and aggregate spending was set a mere 0.3 per cent below the level permitted by the capping system (see Chapter 13 for a fuller discussion of capping). If capping were abolished it would become harder for the government to plan and control public expenditure, but it does not follow that local authority spending would automatically rise sharply. Under the present arrangements, capping is based on maximum increases in expenditure, not on maximum levels of expenditure. Thus higher spending in one financial year generally leads to a higher capping limit in the following year. This may encourage some local authorities to 'spend up to the cap'. More importantly, without capping, local authorities would still face substantial incentives to moderate any proposed spending increases because of the impact on council tax bills. The council tax accounts for only about 20 per cent of local authority financing but it is the marginal source of funding. This means that each 1 per cent increase in spending raises council tax bills by almost 5 per cent. Even if council tax bills were to rise by 10 per cent on average as a result of the abolition of capping, this would add only about £1 billion to general government expenditure.

#### **Spending Accumulated Capital Receipts**

The Labour Party has indicated that it will release the accumulated receipts from local authority asset sales to fund a house-building programme. These capital receipts are often treated as a pot of gold waiting to be spent without any implications for the PSBR. This is not so. In recent years, local authorities have used the receipts that the government has not allowed them to spend on other investment projects either to pay off debt or to build up financial assets. Either way, they reduced the local authority borrowing requirement and the PSBR in the year in which they accrued. If these receipts are now spent, they will automatically increase public spending and the PSBR.

#### **Conclusions**

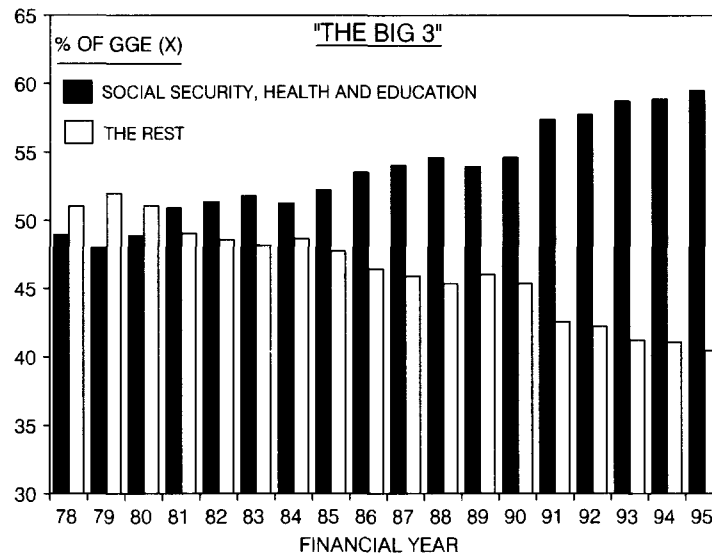
In those areas that have been squeezed hardest in the past few years — running costs, public investment and local authority spending — there seem to be no immediate pressures for a sharp rebound in spending. Public sector pay rises have broadly kept pace with the private sector. Cuts in public investment will be met partly by additional spending under the Private Finance Initiative although longer-term upward pressures may exist. Local authority expenditure is constrained by the highly geared impact that increases on spending have on council tax bills.

## 6.5 The Prospects for Public Spending: Future Pressures

### *The Big Three Spending Areas*

By far the largest proportion of public spending is taken up by social security, health and education (see Box 6.3). These areas now account for almost 60 per cent of overall spending. As Figure 6.13 shows, since 1978/79 the share of total spending taken up by these key areas has grown steadily, whilst the share of 'the rest' has correspondingly shrunk. Clearly, it is future spending in these three key areas which will determine the scale of future public expenditure commitments. Whilst arguing recently the moral case for a smaller state, the Prime Minister nevertheless underlined his commitment to public spending in these areas. 'It is right that we should provide universal access to a taxpayer-funded Health Service, and to provide every child with the choice of a State-funded education. And other areas are self-evident, such as the welfare safety net.'<sup>8</sup> The fundamental issue is how the government's objective of achieving a declining share of spending in GDP can be squared with maintaining the provision of these front-line services at a level and standard that the public expects or needs.

**Figure 6.13: The share of social security, health and education in GDP**



The current political debate on this focuses in a rather shallow way on how effectively the cost of providing these services can be squeezed. Labour's promise to fund extra health services out of savings from 'bureaucracy' is in very much the same vein as the recent emphasis by the current government on keeping down running costs and maintaining wage control as the means for upholding service provision.

<sup>8</sup>Rt. Hon. John Major, 'Choice and freedom for all: the moral case for a smaller state', the Spectator Lecture, 18 September 1996.

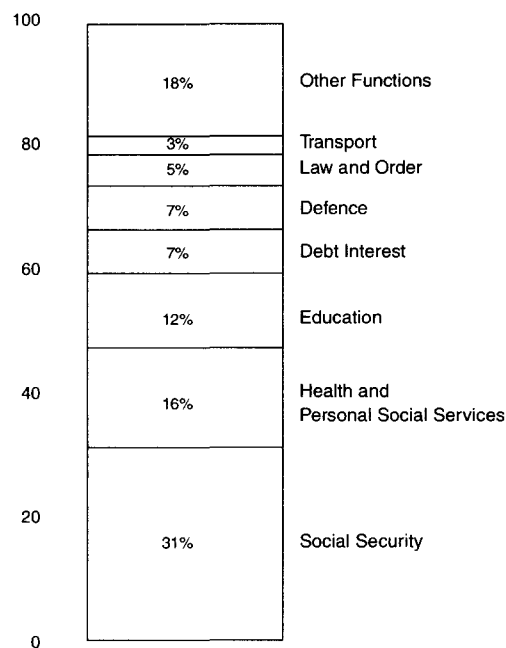
Underlying this debate is the far more important and fundamental question as to whether the state will be able to continue its comprehensive provision of these services at all.

This section sets the context by examining recent trends and potential future spending pressures in social security, health and education. We conclude with some thoughts on longer-term issues.

**Box 6.3: Public spending by function**

Social security, health and education — the so-called ‘Big Three’ — make up the bulk of the public expenditure bill. Social security is by far the biggest spending area, accounting for almost one-third of GGE(X). Health and personal social services are next, accounting for 16 per cent, while education spending takes up about 12 per cent. The estimated breakdown of GGE(X) by function in 1995/96 is shown below.

**GGE(X) by function (estimated 1995/96)**



Source: Public Expenditure Statistical Analyses 1996–97, Table 1.2.

**Central versus local government spending**

GGE(X) and the control total include expenditure by both central and local government. In 1995/96, £75.1 billion, or approximately 30 per cent of the control total, was spent by local authorities, mostly on education, personal social services and policing. Spending by local authorities within GGE(X) covers both spending funded via grants from central government and spending that is self-financed by local taxation.

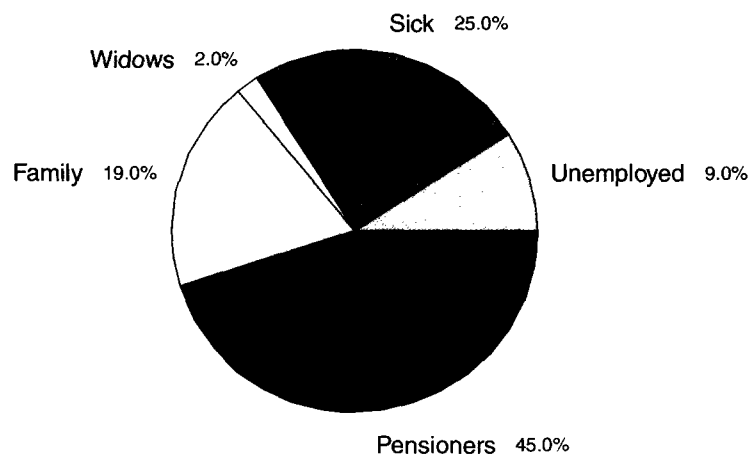


### Social Security

At over £95 billion in 1996/97, spending on social security represents more than 30 per cent of the government's total budget and is by far and away the biggest item of public expenditure. Social security spending has grown from 9 per cent of GDP in 1979/80 to nearer 13 per cent now; in real terms, it has risen by an average of more than 3.5 per cent a year. The reasons for government concern are readily apparent.

Figure 6.14 gives a simplified picture of how social security spending breaks down by broad groups of beneficiaries. Just under one-half of the budget goes on the elderly, one-quarter on the sick and a fifth on families. Less than 10 per cent of social security spending goes on the unemployed.

**Figure 6.14: Proportions of social security spending, divided by broad client group**



The real question for the future is the extent to which the upward pressure on social security spending will persist. As in the past, this will depend largely on the numbers of inactive individuals in the labour market, whether they are pensioners, unemployed, sick or disabled, or lone parents. We can probably assume that benefit levels generally are not going to rise in real terms, so if the number of recipients is reasonably steady, the government should be able to meet its target of reducing social security spending as a percentage of GDP. Will that happen?

#### *The Elderly*

As 45 per cent of social security spending goes to the elderly, total future spending pressures in the social security department depend crucially on the prospects for pension costs. Numbers of pensioners are not expected to increase significantly over the next decade, though in the much longer term — in thirty or forty years' time — numbers will grow substantially. Nevertheless, the number of people in receipt of retirement pension is forecast to grow from 10 million in 1990/91 to 10.8 million by 1998/99. In real terms, spending on the basic pension is forecast to grow by £1.5 billion per year. The main likely source of increased spending on pensioners is SERPS — the State Earnings-Related Pension Scheme. Because it has not yet

reached maturity, spending on it will rise each year into the foreseeable future. Spending is predicted to rise from £2.2 billion in 1995/96 to £4.6 billion in 2000/01.

But if GDP grows in line with its long-term trend of 2.25 per cent, total spending on the state pension (including SERPS) will only rise from 4.3 per cent of GDP in 1996/97 to 4.4 per cent by 2000/01. In the even longer term, the ratio will fall to 3.5 per cent by 2030, despite a large increase in the number of pensioners. The reason there are not large increases in the proportion of GDP spent on the state pension in the future is that we assume the pension is price-indexed and not earnings-indexed. With price indexation, the relative value of state pensions will fall even further behind average earnings and individuals will have to make substantial private provision to ensure adequate incomes in later life. Government might substantially boost means-tested pension levels, which would offset some of the reduction in the ratio of state pension in GDP. But even if this were to happen, price indexation of pensions since 1980 and the emasculation of SERPS in the 1980s and 1990s have all but eliminated a government funding problem for pensions.

### *Non-Pensioners*

While relatively little of the increase in spending over the past two decades has been associated with the registered unemployed, much of the increase is associated with what might be termed 'hidden' unemployment. The number of people claiming invalidity benefit was just 600,000 in 1978/79, but had reached 1.8 million by 1994/95. Other long-term sickness benefits have also seen very big increases in the numbers receiving them. The number of lone parents on supplementary benefit was 300,000 in 1979. There are now 1 million receiving income support. With the important exception of housing benefit, most of the general increased spending has arisen not from higher benefits but from an increased number of recipients.

In the past few years, the Chancellor and the Secretary of State for Social Security have instituted a number of reforms designed to quell the rising tide of expenditure. Invalidity benefit has been replaced by incapacity benefit, which is intended to have tighter eligibility criteria. Latest DSS forecasts suggest a fall in the number of recipients from 1.9 million in 1995/96 to 1.6 million by 1998/99. Housing benefit rules have been tightened so that the maximum rent that people can claim has been reduced. People under 25 years of age can only claim as if they are living in a shared house. And policy towards council and Housing Association rents is changing such that the very rapid increases in rent levels and housing benefit payments seen over the past few years are unlikely to be repeated.

These and other structural reforms instituted over the past three years are predicted by the DSS to reduce spending in the year 2000 by £5 billion compared with predictions made in 1993 when the government published its major review, *The Growth of Social Security*. The DSS is now predicting overall real growth of 1.3 per cent a year over the next three years. This should lead to a small reduction in the share of GDP going on social security.

It would be surprising, and not a little worrying, if this drop did not occur. For, with benefits pegged to prices, a continued increase, or even stability, in the ratio of spending to GDP would imply a continued increase in the number of people dependent on benefits. Among non-pensioners, we already had (in 1994/95) 2.4 million unemployed families on unemployment benefit or income support, 1 million

single-parent families on income support and 2.5 million long-term sick and disabled on invalidity benefit or income support. In addition, there were 600,000 receiving means-tested family credit and others receiving means-tested housing benefit and council tax benefit. This means that approaching *one-third* of non-pensioner families are already in receipt of a means-tested benefit or some other benefit paid on the basis of labour market inactivity.

If these numbers stabilise, or grow only slowly, then social security spending will not continue its inexorable rise as a proportion of GDP. But the converse of this is that benefit levels will continue to fall further and further behind the living standards of working-age people. Just as the basic pension has fallen from 20 per cent to 16 per cent of average male earnings since the late 1970s, so most other benefits have fallen behind to a similar extent. They will continue to do so.

A central question, then, is to what extent a continued fall in the *relative* value of social security benefits is sustainable. Continued price indexation, while average earnings continue to increase in real terms, will mean that out-of-work benefits replace a smaller and smaller proportion of in-work incomes. Those dependent on benefits for long periods will become increasingly divorced from a mainstream that probably already feels distant.

### *Conclusions*

There are signs that growth in the social security budget is under tighter control than for some time. This has been achieved at the cost of lower benefits for some groups and tighter eligibility rules for others. In the longer run, pressures for increased benefits to reflect increased living standards in the rest of society might grow, though the pressure for this right now is, perhaps surprisingly, not overwhelming. If there is a crisis in social security, it is probably in the numbers dependent on benefit.

### **Health**

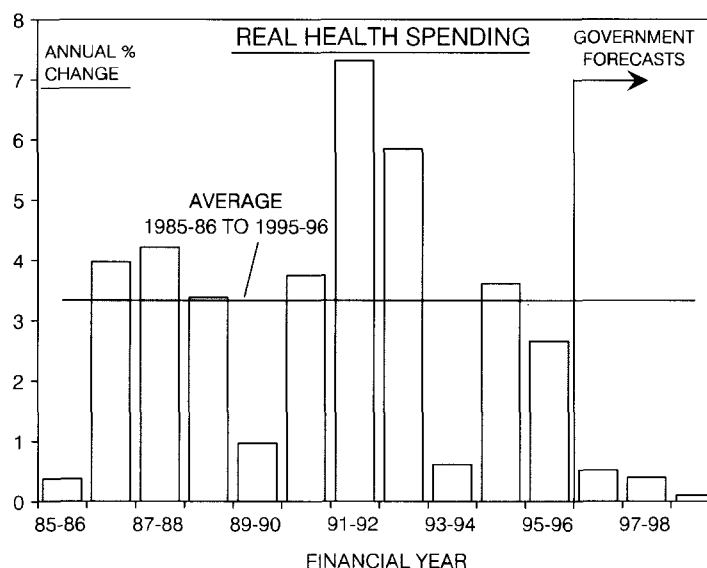
Expenditure on health and personal social services is the second largest area of spending after social security, taking up 16 per cent of total GGE(X), compared with 12 per cent in 1978/79. Spending in this area has risen from 5.4 per cent of GDP in 1978/79 to 6.9 per cent in 1995/96, or in real terms by an average of about 3.4 per cent a year.

The government has a manifesto commitment to increase spending on health in real terms each year but the plans for health spending in last year's Budget are extremely tight. Total NHS spending is planned to grow by just 0.6 per cent in real terms in 1996/97, reducing to 0.1 per cent by 1998/99, as shown in Figure 6.15. Much of this control is achieved by paring back investment programmes. Even so, the plans allow for much lower growth in current spending on health services than has been the norm over the last decade or more.

It is doubtful whether such low spending growth be achieved. As with social security spending, much of health expenditure goes on the provision of services to the elderly. The over-65s account for just 16 per cent of the population, but take up more than 40 per cent of the cost of hospital and community health services. Although the numbers of elderly are not expected to grow much in the near future, the current

system of provision must cope with a population increasingly characterised by lengthening life but worsening health.

**Figure 6.15: Real spending on health**



As the economy grows and living standards rise, the standard of health care that people expect to receive will almost certainly grow too. There are many ways in which technology has lowered the cost of certain treatments — for example, the shift towards day surgery — but new technology in health also tends to widen the range of treatments that can be provided, placing additional demands on the NHS. Furthermore, NHS wage costs tend to grow in line with money GDP, not prices. If the government remains committed to comprehensive provision, and the level and standard of services are to be maintained at a level that the public expects, health spending will need at least to maintain its share of GDP.

### Education

Education spending has remained fairly stable at about 5 per cent of GDP since the late 1970s. Of this spending, the large majority — about £4 in every £5 — is on primary and secondary school and further education, whilst about £1 in every £5 goes on the finance of higher education.

In terms of future plans for education spending, these are less clearly set out in the Budget spending plans than those for the other two big spending areas — health and social security. This is because central government does not command direct control over the level of spending on schools. The responsibility for education spending in the large majority of schools (those that have not opted for grant-maintained status) lies with local authorities. Local authorities (LAs) receive notional education spending allowances through centrally-determined standard spending assessments (SSAs), but ultimately LAs determine the level of spending on schools themselves. To some extent, this means that the amount of spending on schools is determined by the agenda of individual local authorities rather than by central government itself. On

the other hand, by changing the education SSA, central government does heavily influence LA spending.

If central government cuts back the education SSA, this means that LAs have to squeeze spending elsewhere or raise council tax levels to maintain their spending on schools. And if central government raises the education SSA, then LAs are likely to follow course and raise their spending on schools. Partly this is due to political considerations — local authorities that spend under their education SSA may come under fierce local criticism. Another factor is potential competition from the grant-maintained (GM) sector. In many areas, GM schools are funded in line with local SSAs. If a local authority allocates less than the education SSA to the schools under its control, the incentive for those schools will be to opt for GM status.

### *Education Spending Pressures*

Pupil numbers have been growing over the 1990s and are projected to continue to do so. In part, this growth has been the result of fluctuations in birth rates. The number of school-aged children peaked in the late 1970s, and then dropped substantially over the following decade. Since the late 1980s, numbers have started to rise again and this growth is projected to continue into the next century. The rise in pupil numbers is also a result of the dramatic growth in participation in education amongst the over-16s. These changes will have ramifications both for spending on schools and for further and higher education spending.

### *Schools*

After falling during the 1980s, the number of children in schools has started to rise again. The number of pupils in schools in England is projected to grow by around 200,000 (2.7 per cent) over the next three years. To some extent, the pressure on funding that this produces depends on how much pupil–teacher numbers are allowed to rise. One estimate puts the cost of educating 1 per cent more pupils whilst maintaining a constant pupil–teacher ratio at almost £200 million.<sup>9</sup>

### *Further and Higher Education*

A much higher proportion of those above the school-leaving age are opting to remain in education. More than two-thirds of all 16- to 18-year-olds are in either full- or part-time education, compared with only about one-half in the early 1980s. Extra participation beyond 16 has fed through into dramatic increases in enrolments into higher education. The age participation index,<sup>10</sup> which measures the number of new entrants into higher education in Great Britain as a proportion of the number of 18- and 19-year-olds, has risen from 19 per cent in 1991/92 to about 30 per cent, and is projected to remain roughly stable to the end of the century.

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<sup>9</sup>Association of County Councils, Association of District Councils and Association of Metropolitan Authorities, Factsheet no. 8.

<sup>10</sup>This measures the number of initial home entrants aged under 21 into higher education as a proportion of the average number of 18- and 19-year-olds in the country; see DfEE Departmental Report, 1996 Annexe P.

Although current funding for higher education has grown substantially in real terms over the last five years, this is clearly an area in which increased demand has resulted in the government cutting back the scope of its provision. Students increasingly pay for their own maintenance through a system of student loans. There is a strong chance that a similar system will be introduced for fees.

### ***Longer-Term Considerations***

The last hundred years have seen a steady growth in the scale of government in developed countries from little more than 5 per cent of GDP to 40 per cent or more in Europe, and 30–35 per cent in the US and Japan. This growth has been fairly continuous, with particularly rapid development in the post-war period. Most of the growth has been driven by the introduction and expansion of essentially redistributive services — social security provision, health care and education.

In many countries, the growth of government spending and taxation has continued through the 1980s and into the 1990s, particularly in continental Europe. But in the UK, the underlying growth has slowed since the mid- to late 1970s, and in many other countries, including those in continental Europe, politicians are now talking about cutting back on the scale of government.

Although UK public spending has not yet fallen decisively as a share of national income, it has been controlled. Nevertheless, the share of social security, health and education in public spending has continued to grow, as shown in Figure 6.13 above. Hence public spending control has been achieved by cuts in other areas. The growth in social security, far from reflecting more generous benefits, has reflected growth in numbers. The growth in education spending, of around 30 per cent in real terms since 1979, has been the slowest of the three; growth in health spending, of 70 per cent in real terms, has been dramatic.

Looking to the future the pressure for higher spending in these areas is strong. They are classic ‘superior’ goods — they have an income elasticity greater than one: as individuals and countries grow richer, they seek to spend a higher proportion of total income on retirement, health care and education. Demographic and social changes, with more elderly in the long term, more lone parents, and higher unemployment, add to spending pressures. Technological change, while making existing health care cheaper to administer, continues to create new and expensive possibilities. And inequality in incomes, by enhancing the demands of the better-off for these services, is also a force for spending growth.

The result of all this is that whether public spending grows in these areas or not, total spending will grow. And if public spending is restrained, the share of private spending will rise. We have already seen the beginning of the effective privatisation of future pension provision as the Conservative government has increased the state pension only in line with prices. And in health and education, we are also seeing rapid growth in real private spending, of almost 200 per cent between 1978/79 and 1993/94 in both areas.<sup>11</sup> By 1993/94, private health spending had reached 10 per cent of public

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<sup>11</sup>See Hills, J. (1995), ‘Funding the welfare state’, *Oxford Review of Economic Policy*, vol. 11, no. 3, Table 1, p. 31.

spending, and private education 15 per cent, up from 5 per cent and 8 per cent respectively in 1978/79.

The public spending plans currently in place imply much slower growth in real spending on health and probably education than has been seen in the last 17 years. If that is to be achieved, hard choices have to be faced, since such an outcome implies a continued shift in the balance between public and private sector provision. It is quite feasible to imagine a managed change of this kind which seeks to maintain humane care for the least powerful through targeting resources more closely on those in greatest need. But it is also possible to imagine an unplanned and wasteful future if an open debate about the role of government is evaded. It may not be comfortable to face these realities, but no comfortable *status quo* exists. In particular, allowing state provision to wither implies a change in distributional objectives that can only be addressed if it is recognised. A constant level of taxation and public spending will not deliver health education and social security in a way that will work without reform. And that reform will mean either higher taxes, or a redistribution of public spending and more private spending.

# 7 Capital Spending, the PFI and Resource Accounting

In 1996/97, total publicly sponsored capital expenditure is planned to be £22.4 billion, or 7.3 per cent of general government expenditure. There are three sources of finance for this expenditure: first, the traditional sources of public finance — revenues from taxation and public sector borrowing; second, expenditure out of the proceeds of the National Lottery (which is mostly intended for capital, not current, expenditure); third, private sources of finance harnessed by the Private Finance Initiative. The third category of capital expenditure is essentially ‘off balance sheet’ — privately financed capital expenditure does not count towards the PSBR in the current year.

The public sector capital stock has often experienced both ‘feast’ and ‘famine’, not least as a result of public sector accounting conventions. Governments have typically found it easier to postpone capital projects than to cut current expenditure in times of fiscal tightening, and have sometimes rushed through capital spending when times were good.

In this year’s Green Budget, we consider two recent initiatives which are designed to improve the management of the UK’s social infrastructure: the Private Finance Initiative (PFI) and resource-based central government accounts. The compilation of resource accounts should generate improved incentives for efficient management of the public sector’s capital stock. The PFI is also intended to generate ‘value-for-money’ gains but this will be in an ‘off-balance-sheet’ context.

## 7.1 The Private Finance Initiative

The Private Finance Initiative (PFI) is the purchase by government of public services that are produced using privately owned capital. Proponents of the PFI claim it has created the potential for significant efficiency gains in the provision of public services. There are, however, worries that private finance is being used as a substitute for public finance, rather than an additional source of funds, and that the mix of projects given the go-ahead may not be socially optimal. In addition, politicians attracted by the use of ‘off-balance-sheet’ finance in the short run may not be paying sufficient attention to the future consequences of the PFI for public expenditure control.

### *The Story So Far*

As described in last year’s Green Budget, the PFI emerged from a progressive relaxation of the Treasury’s Ryrie rules which operated during the 1980s. The Ryrie rules insisted that the use of private finance to provide public services had to be compared with a hypothetical public sector alternative, even if budget constraints meant that the public sector alternative would not go ahead. Thus many projects with positive net value were never given the go-ahead.

In November 1994, the Chancellor predicted that £5 billion in new projects would be commissioned under the PFI by the end of 1995/96, turning the initiative from a ‘glimpse



in the planner's eye' to the 'heart of all decision making in government'. In practice, this was largely achieved with £4.8 billion of contracts being signed, roughly half of which can be accounted for by the Channel Tunnel rail link. By 1998/99, the Chancellor hopes that £14 billion of PFI contracts will have been signed, representing a major component of publicly sponsored capital investment.

### ***Why Use Private Finance?***

There are two sets of reasons for the use of private finance to provide public services. First, the use of private finance may allow public services to be delivered more efficiently. Second, the PFI may allow the creation of additional beneficial social infrastructure by getting around restrictive limits on government borrowing. The PFI should be judged against these *value-for-money* and *additionality* criteria.

### ***Has the PFI Generated Value for Money?***

Private finance costs more than government borrowing because of the status of the government as a large-scale low-risk borrower. For the PFI to represent value for money, the gains in efficiency from the use of private finance would have to outweigh the public sector's access to cheaper sources of finance. Private finance might produce better value for money than public finance since the private sector may be able to manage some types of risks more effectively than the public sector, and the separation of purchase and delivery may allow public sector managers to focus their attentions on service outputs rather than methods of service delivery.

- **Transfer of risks to the private sector.** Under traditional public procurement, private sector firms competed in how to deliver detailed project specifications at lowest cost. Under the PFI, private firms compete to provide specified services, being left free to innovate in project design, the balance between construction and maintenance costs, and the transfer of risks from the public sector.

The private sector may be better able to manage some of the risks associated with the provision of social infrastructure. It is not simply how much risk is transferred which is important, but what types of risk are transferred, since the private sector will only manage risks better if it is able to reduce the overall level of risk. A simple transfer of risks over which the private sector has little control such as risks associated with changes in government policy is more akin to the public sector paying an insurance premium, and the higher cost of private finance is unlikely to make this a cost-effective strategy.

Consider a private firm that is responsible for both construction and maintenance of an asset. It should be possible to reduce the overall level of risk by managing both sets of risks — balancing higher construction costs against lower maintenance costs in the future, for example. Of course, such gains could, in principle, be realised within the public sector, although the front loading of exchequer finance — construction costs count against the department's budget in the present year whilst future maintenance costs do not — means that this is unlikely in practice.

This transfer of risk can lead to a combination of lower costs and higher quality. In the Northern Line trains contract, the contractor faces penalties if the number of train

failures per passenger kilometre exceeds one per 30,000 km. This is nearly four times better than the best fleet currently on the Underground.

- **Separation of purchase and delivery.** A second reason why the introduction of the PFI may lead to better value for money is due to the separation of purchase and delivery, which forces public sector managers to focus on service outputs rather than inputs. This leads to contracts that specify what service is required rather than how that service will be provided.

The PFI has generated the scope for gains in efficiency but there are a number of concerns that relate to whether public sector managers are able to specify contracts in such a way that the use of private finance will be good 'value for money' in the longer run. First, the privately financed option may represent 'good value' compared with other privately financed options rather than 'best value' because of the lack of funding available for publicly financed alternatives. Second, inappropriate risks may be transferred to the private sector. Third, the transfer of risk may be more apparent than real due to the possibility of private sector bankruptcy. Fourth, the public sector may bear a larger share of residual value risk than it anticipates due to the quasi-monopoly position enjoyed by the owners of social infrastructure assets. Fifth, in the longer run, the public sector may end up paying for services it no longer requires.

- **May not be 'best' value.** Private project proposals will be compared against public alternatives only if there is a realistic chance of a publicly financed project going ahead. Thus planned cuts in public finance for capital projects over the next few years mean that fewer PFI projects will have to be compared against a public sector alternative.
- **Inappropriate transfer of risk.** The private sector will only bear risk that it cannot control at a price, effectively charging the public sector an insurance premium. Given that private firms face a higher cost of borrowing than the public sector, this is unlikely to be a cost-efficient allocation of risk. Thus, whilst it seems sensible that a private firm operating a DBFO (Design, Build, Finance, Operate) road scheme should bear the risks associated with lower traffic volumes resulting from lane closures due to poor maintenance, it should not bear the risks associated with changes in car usage resulting from changes to government transport policy. This makes contracting very difficult.
- **Risk transfer more apparent than real.** It is possible that the public sector may end up bearing risk that has supposedly been transferred to the private sector if private firms go bankrupt or at the end of fixed-term contracts. This type of risk is often exaggerated — if a contractor goes bankrupt during the construction phase of a project, the government will not have paid a penny of taxpayers' money, since service delivery will not have begun. Indeed, even once the infrastructure is in place, the public sector could conceivably pick up the asset cheaply at a 'distress' price.
- **Residual value risk.** The ownership of some privately financed assets such as the Skye Bridge and the DBFO road schemes will transfer to the public sector at the end of the concession. Other assets such as Northern Line trains will remain privately owned. In the absence of genuinely competitive markets developing in the supply of

such assets, the owners of such assets may find themselves in a quasi-monopoly position *vis-à-vis* the public sector, allowing them to increase their charges to the public sector.

- **Unanticipated changes in service demands.** PFI contracts are typically specified in terms of prison places, trains or hospital beds being available for use. If the pattern of demand for services changes, government could conceivably end up paying for services it no longer requires. If, for example, the stock of NHS hospitals that existed in 1979 had been privately owned, policy reforms such as higher utilisation of a smaller overall total number of hospital beds might not have yielded any savings since the hospital places would still have had to be paid for. This may be a particular danger in the NHS since contracts between health trusts and private consortia are legally binding whereas those between trusts and health-care purchasers, such as health authorities or GP fundholders, are not. A trust that had purchased inappropriate services could cease to be financially viable and liability would be borne by the Department of Health.

As public sector managers gain experience in the specification of PFI contracts, a clearer picture should emerge as to which risks are better transferred to the private sector and which the public sector should bear itself. The growth of competitive markets in the supply of infrastructure would also resolve many of the problems associated with residual value risk.

Overall, it appears that the PFI is likely to generate genuine gains in the efficiency with which public services are delivered, although a large part of these may be due to minimising costs over a longer time frame and focusing on service outputs, both of which, in principle, the public sector could have achieved itself.

#### ***Have Additional Capital Assets been Created as a Result of the PFI?***

In last year's Green Budget, we suggested that a major constraint on public sector investment was concern with the PSBR, which can prevent projects with positive net value from proceeding. Even in the absence of efficiency gains through the use of private finance, off-balance-sheet initiatives such as the PFI could increase social welfare if they lead to the creation of additional social infrastructure. The realisation of such gains depends on whether private finance is *additional* to public finance or a *substitute* for it.

The November 1994 Financial Statement and Budget Report (FSBR) suggested that the 'private sector's contribution is additional to public provision'. Furthermore, Treasury departmental guidelines published in 1992 stated that 'Spending as a result of this initiative ... will be additional to public provision and will make new resources available'.<sup>1</sup> However, between November 1994 and November 1995, planned public sector capital expenditure for the years 1995/96 through to 1997/98 was reduced by £4 billion, as shown in Table 7.1. At the same time, £5.1 billion of PFI expenditure was forecast over this period. Whilst it is impossible to know how planned capital expenditure would have changed in the absence of the PFI, it seems clear that the PFI

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<sup>1</sup>Diane Abott in evidence to the Treasury Committee Sixth Report on Private Finance Initiative.

is largely being used to substitute privately financed assets for publicly financed assets.

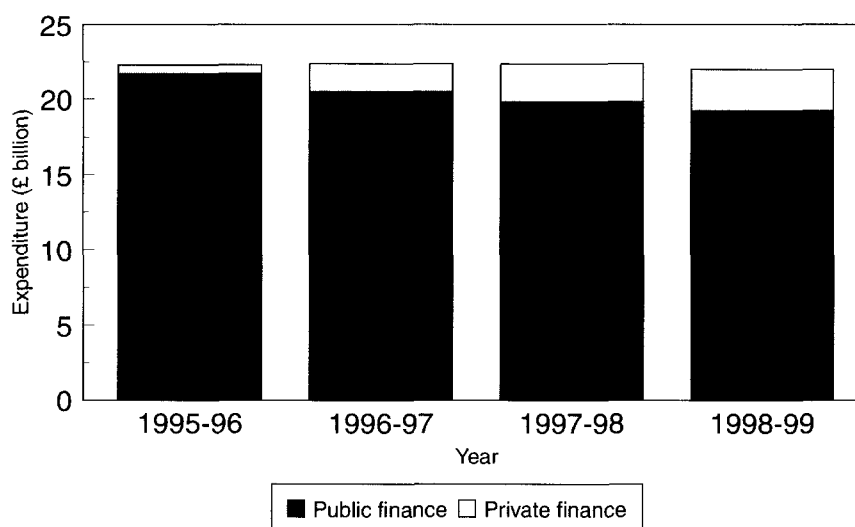
**Table 7.1: Changes in planned public expenditure over time (£ billion)**

	1995/96	1996/97	1997/98
Public capital expenditure: FSBR 1994	22.2	22.0	21.8
Public capital expenditure: FSBR 1995	21.7	20.5	19.8
Reduction in public capital expenditure	0.5	1.5	2.0
PFI expenditure	0.6	1.9	2.6

Source: Financial Statement and Budget Report, November 1994 and November 1995.

The expenditure plans published in the 1995 FSBR show publicly financed capital expenditure falling from £21.7 billion in 1995/96 to £19.2 billion in 1998/99, a 12 per cent fall in cash terms. This implies a planned reduction of publicly financed capital expenditure from over 3 per cent of GDP in 1995/96 to 2.3 per cent in 1998/99. Only some of this gap is to be filled by the growth of investment under the Private Finance Initiative, up from 2.7 per cent of publicly sponsored expenditure in 1995/96 to 13 per cent in 1999/2000, as shown in Figure 7.1.

**Figure 7.1: Public expenditure plans: publicly sponsored capital expenditure**

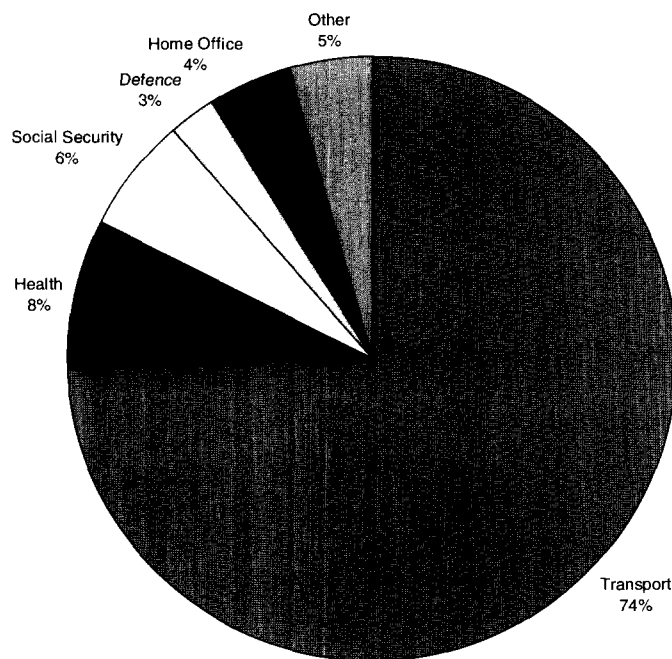


In addition, planned cuts in the amount of public sector finance are greatest in those departments that have been most successful in attracting private finance, with the transport budget set to shrink by 30 per cent between 1994/95 and 1996/97. Since limiting the planned real cuts in publicly sponsored capital investment between 1995/96 and 1998/99 to the 8 per cent envisaged in the 1995 FSBR depends on the planned volume of private finance being realised, delays in the commissioning of PFI projects could lead to a significant shortfall in social infrastructure creation.

### ***The Distribution of Capital Expenditure***

The PFI could lead to losses in social welfare as a result of a non-optimal mix of capital projects being given the go-ahead. To maximise social welfare, the government would allocate the overall capital expenditure budget between departments according to an analysis of the relative merits of the competing demands on the public purse — those projects that promised to deliver the highest social returns would go ahead. The projects that are most likely to interest the private sector are those that produce either real or ‘shadow’ revenue streams.<sup>2</sup> These characteristics are common amongst many transport projects such as the Channel Tunnel rail link and the Croydon tram link, which produce marketable services and can be financed largely through user charges, and the DBFO road-building schemes, which are to be financed via shadow tolls. Thus, as Figure 7.2 shows, 74 per cent of the value of agreed PFI projects to date has been in the field of transport. As the PFI grows, there is a risk that the distribution of projects between government departments will become skewed.

**Figure 7.2: Distribution of agreed PFI projects, by central government department**



Source: HM Treasury Press Release, 3 April 1996.

### ***Will the Government Lose Control of Public Expenditure?***

One of the principal attractions that the PFI offers to government departments is that assets are created that count against future budgets but do not score against public

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<sup>2</sup>An example of a ‘shadow’ revenue stream is in DBFO road contracts where the government will pay the private owner of the road an amount that depends on road usage, despite actual tolls not being levied on users.

expenditure in the current year. The attraction of such 'off-balance-sheet' finance has much to do with government accounts being presented on a cash basis rather than on an accruals basis, in which publicly financed assets would be depreciated over the lifetime of the asset, just as payments for services provided by privately financed capital score against public expenditure over the lifetime of the PFI contract.

The use of cash-based accounting methods may generate a risk that government departments pay insufficient attention to the build-up of future liabilities resulting from the commissioning of privately financed projects. The public expenditure planning process only projects three years into the future and commitments entered into under PFI may last for twenty or thirty years. In evidence to the Treasury Select Committee, a Treasury spokesman<sup>3</sup> revealed that, with regard to systems of monitoring future commitments, 'There are none in place to monitor forward commitments in a systematised way of any sort across government departments'.

In the longer run, central government departments could find the allocation of significant portions of their annual budgets predetermined by PFI contracts to buy in services from the private sector. This could have serious repercussions for public expenditure control.

In the short run, the use of private finance will not lead to any significant loss of public expenditure control. Total expenditure under the PFI by April 1996 totalled less than £1 billion, compared with the £268 billion control total for public expenditure for 1996/97. The revenue commitments of the Department of Health under the PFI in 1998/99 will only total £10 million, less than 0.03 per cent of the £35.97 billion of planned DoH spending. On the other hand, PFI commitments could quickly build up into significant commitments to future spending. Contracts already entered into by the Department of Transport will lead to a total demand on the department's budget of £340 million by 2000/01,<sup>4</sup> i.e. about 8.5 per cent of the department's budget in the current financial year.

### *Summary*

We have argued that the success of the Private Finance Initiative should be judged against *value-for-money* and *additionality* criteria. There is now some initial evidence that, for at least some projects, the use of private finance may be more cost-effective than traditional public finance. However, difficulties in contracting and uncertainties over how much risk has effectively been transferred to the private sector make it extremely difficult to predict whether such apparent gains will also be realised *ex post*. It is clear that private finance is largely being used as a substitute for public finance. This reduces the PSBR (since private finance does not feature in government accounts), which is the highest-profile measure of the government's fiscal stance used by the City and the media. This may have undesirable consequences for the composition of the social infrastructure projects that go ahead over the next few years.

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<sup>3</sup>Steve Robson, Director, Financial Regulation and Industry, in evidence to the Treasury Select Committee, 24 January 1996.

<sup>4</sup>John Watts, Minister of State, in evidence to the Treasury Select Committee, 11 July 1996.

## 7.2 Resource Accounting

The introduction of 'resource accounting' and 'resource budgeting' for central government departments has been rather immodestly hailed as 'probably the most important reform of Civil Service accounting and budgeting arrangements this century'.<sup>5</sup>

Resource-based accounting is already used extensively in the public sector (in the nationalised industries, the National Health Service and in executive agencies) and is growing in use in other OECD economies (New Zealand in particular). With the introduction of resource accounting throughout central government departments by the end of the century, there will be a convergence between the accounting methods used within the public and private sectors in the United Kingdom.

The proposed reforms will occur in two stages. First, by 1 April 1999, all government departments will publish resource-based accounts which measure the resources consumed by a government department in a given financial year rather than simply the amount of cash that is spent. This will be followed, in the year 2000, by the introduction of resource budgeting — the use of resource-based accounting methods within the Public Expenditure Survey. This is hoped to provide a framework for analysing expenditure by departmental objective, relating this to outputs where possible.

We will consider the effects of the introduction of resource budgeting on the efficiency of the public sector, the determination of spending priorities, and the PSBR.

### *Cash Accounting versus Resource Accounting*

At present, central government departments publish accounts on a *cash basis*. Thus, in 1996/97, the Ministry of Defence plans to spend £21.4 billion.<sup>6</sup> This reflects the money that Parliament has voted to the department for 1996/97 and what the department is expected to pay out during the course of the year, whether in the form of wages, expenditure on consumables such as fuel or expenditure on the creation of capital assets. In the simplified example shown in Table 7.2, if the MoD purchased an aircraft-carrier for the Navy in year 1 which had a lifespan of three years and which cost £90 million, this entire total would be scored against public expenditure in year 1, leaving the capital asset an essentially 'free good' for the following two years.

**Table 7.2: Three-year expenditure forecast under cash-based accounts**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>
Capital spending	90	0	0
Current spending	10	10	10
Cash spending	100	10	10

<sup>5</sup>Kenneth Clarke, Foreword to *Better Accounting for the Taxpayer's Money: Resource Accounting and Budgeting in Government*, HMSO, 1994.

<sup>6</sup>*Financial Statement and Budget Report 1996/97*, HMSO, November 1995.

By contrast, resource accounting focuses on the resources consumed within a given year rather than just the amount of cash that is spent. As a result, it gives a far better indication of the true opportunity cost of delivering a service. Table 7.3 shows that, under a system of resource-based accounts, the capital expenditure would be accounted for over the useful life of the asset, giving managers an incentive to dispose of surplus assets and make more efficient choices as to the methods by which services will be delivered.

**Table 7.3: Three-year expenditure forecast under resource-based accounts<sup>a</sup>**

	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>
Capital spending	30	30	30
Current spending	10	10	10
Resource spending	40	40	40

<sup>a</sup>We abstract from the opportunity cost of capital for this example.

Under the reforms, government departments will be required to produce a series of accounts using both cash and accruals bases, bringing central government accounts more into line with those used in the private sector. The publication of both cash- and resource-based accounts (equivalent to cash-flow statements and profit-and-loss accounts in the private sector) will enhance the information available to both Parliament and public sector managers. Cash accounting will, as at present, provide an effective way of managing cash. It is hoped that resource accounting will provide an effective way of managing resources, although the creation of additional information does not necessarily mean that this information will be put to use.

### ***Impact on the Efficiency of the Public Sector***

The main impetus for the introduction of resource budgeting into the Public Expenditure Survey from the year 2000 is the potential for improvements in the microeconomic performance of the public sector.<sup>7</sup> These may be realised if a move to resource budgeting can eradicate some of the perverse incentives that a cash-based system of public expenditure control may generate for the efficient delivery of public services. These may include:

- **Inefficient methods of service delivery.** Under cash accounting, the capital asset is essentially a free good to the department once it is created, whereas labour inputs are costly. This may lead to methods of generating services that do not minimise the resource cost of the activity since the full cost of employing capital assets is not taken into account. Resource accounting should force managers to take account of the true cost of both capital and labour inputs and hence lead to more efficient methods of service delivery.

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<sup>7</sup>See David Heathcoat-Amory's speech to a Treasury Conference, September 1995.



- **Hoarding of capital assets.** Since capital assets are presently treated as a free resource once created, public sector managers face few incentives to dispose of surplus assets. Resource accounting attaches a price to holding on to capital assets — a combination of the cost of asset depreciation and the cost of paying interest on the money borrowed to purchase the asset (or the interest forgone in not using the money for an alternative purpose). This should encourage public sector managers to question whether retention of the assets is really necessary.
- **More efficient investment decisions.** The use of resource-based accounts should encourage public sector managers to take a longer-term focus for decisions since depreciation of assets will count against future expenditure whilst the full impact of capital spending will not occur in the year the assets are created. The use of capital charging will allow easier comparisons of the relative costs of using public and privately owned assets. The scope for efficiency gains through better capital investment decisions may be limited by a continued focus on the PSBR as an indicator of fiscal stance since capital expenditure will still score against the PSBR in the year it occurs.
- **A level playing field.** Once the use of publicly owned capital assets results in a capital charge, rather than simply being treated as a free good, public sector managers should be able to make more informed decisions as to the relative costs and benefits of purchasing services from the private sector. This could facilitate the development of the Private Finance Initiative since the public and private sectors will now be reporting on a comparable basis.
- **End-of-year spending sprees.** Since cash amounts apply to a single year, and can typically not be transferred between years, departments likely to underspend their budgets have an incentive to indulge in end-of-year ‘spending sprees’ on capital assets. Such spending is unlikely to be allocatively efficient. Under resource accounting, such spending sprees are less likely since spending would count against the following year’s budget, when the resources were consumed, rather than this year’s budget, when the cheques were written. Resource budgeting should therefore allow greater flexibility of budgets between financial years.
- **Opportunities for ‘creative’ accounting.** Since cash accounts register expenditure in the year the payment is made, not the year to which the payment applies, one method of disguising the true amount of resources consumed in a year is simply to delay the payment of bills.

Efficiency gains from the use of resource-based accounts are only likely to emerge once these accounts are used to plan and monitor public expenditure, and the gains achievable from the better management of assets and liabilities may not be large relative to overall spending. Most government departments do not trade and therefore do not have large numbers of debtors or creditors. In addition, the public services tend to be highly labour intensive, thus reducing the magnitude of any impact of more efficient use of existing capital assets. Furthermore, the growth of contracting out, leasing and the Private Finance Initiative have all reduced the proportion of the assets used to deliver public services that are actually managed by the public sector itself.

### ***Impact on the Determination of Public Spending Priorities***

If the true resource cost of delivering particular policy goals could be measured accurately, it might be possible to allocate government spending more effectively both between and within central government departments. A true cost–benefit analysis of the public expenditure programme would then be possible. Whilst the use of resource accounting will improve the calculations of costs for such an exercise, the major difficulty is with the calculation of the true social benefits of public expenditure. A move to resource budgeting would generate improved information on the resource costs of maintaining an around-the-clock coastguard service, for example, but this is unlikely to be helpful in assessing the relative merits of competing claims on public funds in the absence of measures of the impact that this service has on the national economy and, more widely still, on national well-being.

### ***Impact on the PSBR***

The PSBR is the principal measure of financial flows between the public and private sectors currently used by the media and financial markets to judge the fiscal stance of the government. Even under a system of resource budgeting, the PSBR will continue to represent the difference between cash inflows and outflows during the financial year. Since the PSBR is a cash-based concept, and publicly financed capital expenditure will continue to count against it, existing tendencies for capital expenditure to be an easy target in times of spending restraint are likely to remain. As a result, interest in ‘off-balance-sheet’ methods of finance for capital investment programmes such as the PFI is unlikely to diminish.

One channel through which resource budgeting could influence the PSBR would be if capital charging led to sales of a department’s surplus or outdated capital stock. The ‘shake-out’ effect of moving to a smaller stock of public capital which is utilised more efficiently should lead to temporary improvements in the PSBR, although the size of these effects is very difficult to estimate.

### ***Summary***

The introduction of resource-based accounts to central government departments should create the potential for improving the efficiency with which public services are delivered at the margin. Whilst a move to resource accounting will improve the accuracy with which the resource costs of delivering particular services can be determined, meaningful cost–benefit analysis will remain limited by the difficulties associated with measuring service outputs.

Since the PSBR is a cash-based concept and is likely to remain the major indicator of the government’s overall fiscal stance, it is not clear that the introduction of resource budgeting will make any significant changes to the incentives for the government both to take too short-term a view in the determination of public capital spending and to be attracted to alternative ‘off-balance-sheet’ methods of obtaining additional infrastructure investment.

# 8 Issues in the Taxation of Companies

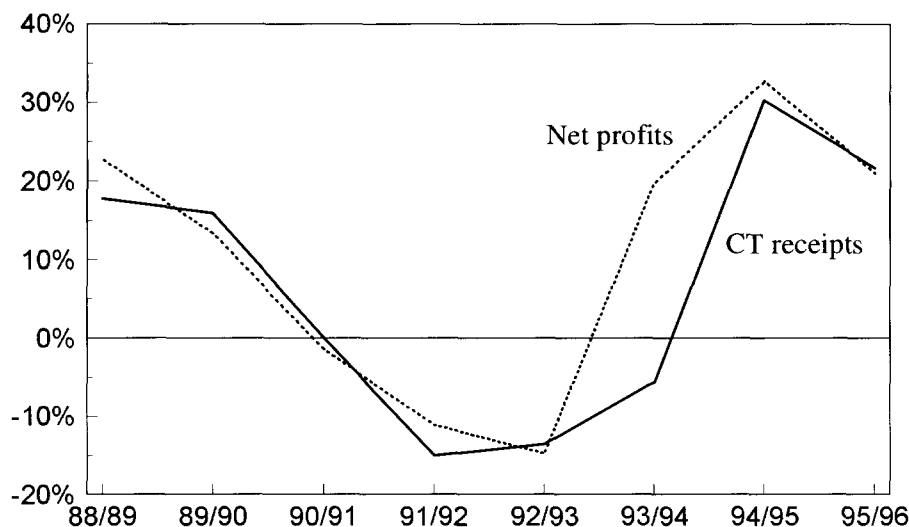
We take this opportunity to discuss some more general issues in corporate taxation that may be of interest in the next Parliament. In particular, we consider:

- the trend in UK corporation tax receipts, both relative to profit growth in the UK and relative to trends in corporate tax levels elsewhere in the world;
- the balance between corporate and personal taxation;
- the effects of corporate taxation on investment and R&D spending, and whether the levels of investment and R&D in Britain are a cause for concern;
- the viability of the current imputation system for taxing company dividends, and the consequences of reducing the rate of advance corporation tax;
- and finally, some of the issues that would need to be addressed if the next government were to implement a windfall levy on the privatised utility companies.

## 8.1 Corporation Tax Revenues

Have UK corporation tax receipts grown by less in the 1990s than would have been expected, given the developments in company profitability? How does the trend in UK corporation tax compare with developments in other OECD countries?

**Figure 8.1: Growth in corporate tax receipts and net company profits**



Note: Net company profits are given by gross trading profits plus rent and income from abroad minus interest and depreciation, for companies and financial institutions. The profits data have been measured on a fiscal year basis and shifted forward one year, to account for the payment lag in corporation tax.

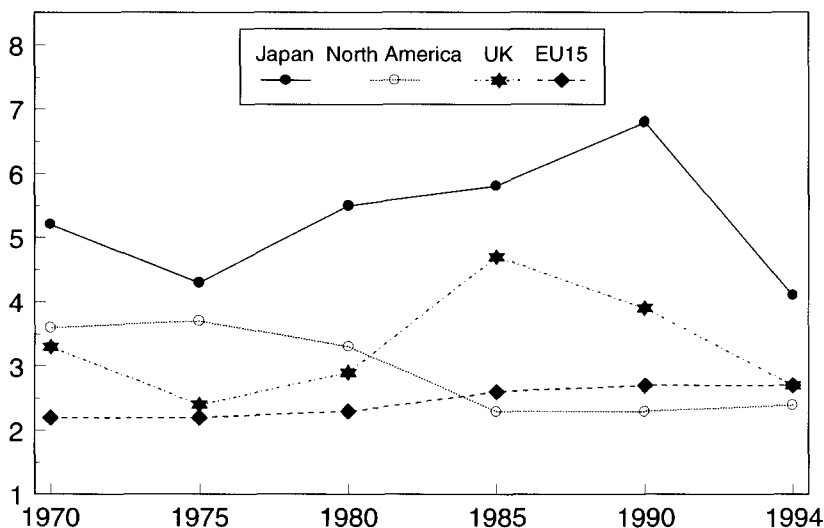
Source: *Economic Trends Annual Supplement (1996/97)* and *Inland Revenue Statistics (1995)*. Corporation tax receipts for 1995/96 use the latest published estimate from HM Treasury's Summer Economic Forecast 1996.

The growth in UK corporation tax revenue is pretty much in line with the growth in an appropriate measure of profits, as can be seen in Figure 8.1. This compares the nominal growth rate in corporation tax revenues with the nominal growth rate in a measure of taxable profits estimated from aggregate National Accounts data. These follow a very similar path over the period from 1988/89 to 1995/96. It should be noted that taxable profits are calculated net of interest payments and depreciation (capital allowances), and net profits tend to be more sensitive to the business cycle than measures of gross trading profits.

This period covers a fairly stable tax regime for companies, but includes a lowering of the corporation tax rate from 35 per cent in 1989/90 to 33 per cent by 1991/92, an extension to loss carry-backs in 1991, a period of more generous capital allowances from November 1992 to October 1993, and a reduction in the rate of advance corporation tax from 25 per cent in 1992/93 to 20 per cent in 1994/95. These last two factors partly explain the low growth of corporation tax receipts in 1993/94, although this remains the one year in which corporation tax growth was lower than might have been expected. Nevertheless, there is little sign of a collapse in the corporate tax base in these figures.

Corporate tax receipts as a share of GDP have in fact been remarkably stable over the last decade, both in the European Union and in North America (see Figure 8.2). Corporate tax receipts did decline in North America between 1970 and 1985, from 3.5 per cent of GDP to 2.3 per cent of GDP, but they have shown no decline in the last decade. In the 1990s, corporate tax receipts as a share of GDP have fallen in the UK and Japan. At least in the UK, as we have seen above, this seems to be primarily a cyclical phenomenon.

Figure 8.2: Corporate tax as a percentage of GDP

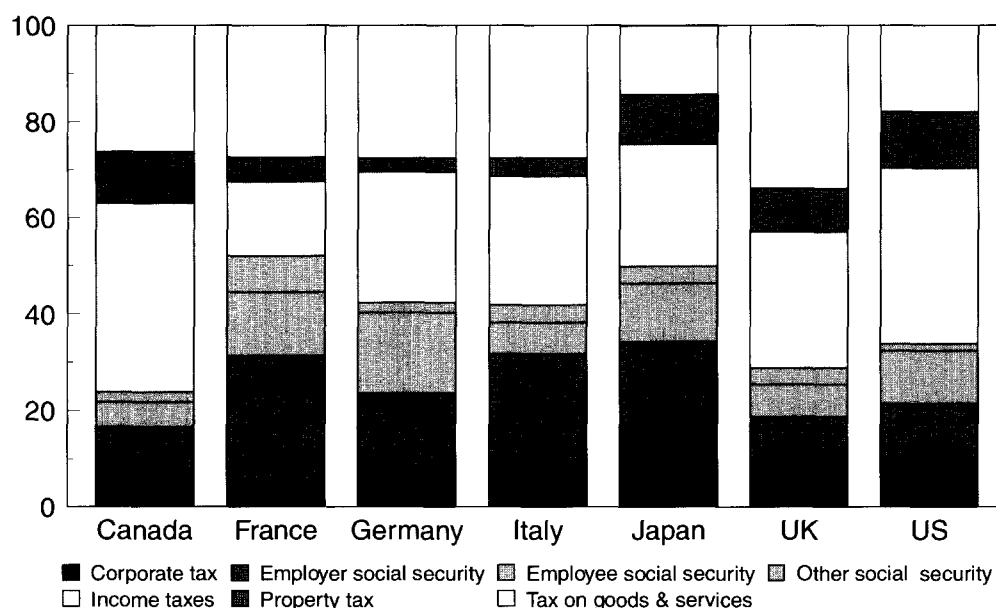


Source: *OECD Revenue Statistics* (1996).

## 8.2 The Balance between Corporate and Personal Taxation

There have recently been some suggestions that UK companies pay less tax than those in other countries. Figure 8.3 shows the average proportion of total tax revenue raised by each of seven main groups of taxes in the G7 countries over the period 1990–94. A five-year average is taken to smooth out differences in economic conditions.

Figure 8.3: Taxes as a percentage of total taxation (1990–94 average)



Source: *OECD Revenue Statistics* (1996).

The figure shows that the UK share of corporate tax is neither particularly low nor particularly high by international standards, being higher than that in France and Germany, similar to that in the US, and below that in Italy and Japan. The suggestion that the UK level of company taxation is low comes from adding employer social security contributions to corporate taxes. The combined share of these two taxes is indeed low in the UK. But there is little coherent reason for combining these two. Corporate tax is levied on company profits. Employer social security contributions are one of three taxes levied on employment income, the others being employee social security contributions and income tax. All three are typically paid by employers to the tax authorities, and it is hard to think of a defence for treating them differently. All three drive a wedge between the supply price of labour (the net wage received by the employee) and the demand price of labour (the gross cost to the employer of employing the individual).

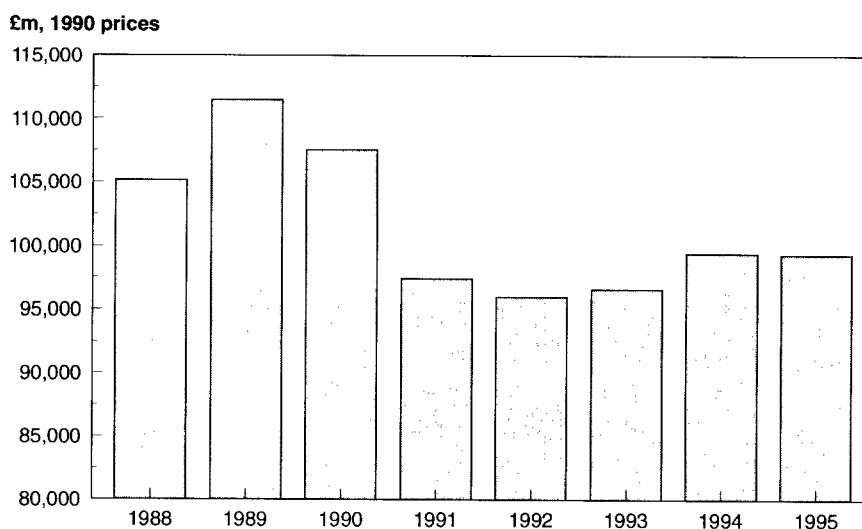
So it is not the case that company tax payments are low in the UK by international standards. But we should also be clear that what we have been discussing, and all we can realistically hope to measure, is tax payments, not the effective incidence of tax.

Taxes make individuals worse off than they otherwise would be, in their capacities as consumers, suppliers of labour or suppliers of capital. The effective incidence or burden of a tax describes which individuals are made worse off as a result of that tax being imposed. But the effective incidence of taxes is not necessarily closely related to the distribution of tax payments, and is strongly affected by the nature of the market within which the taxes are imposed. In particular, attempting to impose taxes on highly mobile factors of production in an open economy may lead to tax payments being made by these mobile factors, but imposes tax burdens on immobile factors used in conjunction with the mobile factors. In the extreme, if capital were completely mobile and labour completely immobile, capital tax payments could not reduce the post-tax real rate of return earned by suppliers of capital, so their effective incidence would fall wholly on labour.

## 8.3 Corporation Tax and Investment

The feeble recovery of investment from its trough in 1992 (see Figure 8.4) has served to refocus attention on a long-running debate: is the level of investment disturbingly low in Britain, and could changes to corporation tax promote higher investment spending? A parallel debate asks the same questions about the level of spending on research and development (R&D).

Figure 8.4: Gross domestic fixed capital formation



Source: *Economic Trends Annual Supplement* (1996/97), Table 1.8.

There is little doubt that the current corporation tax system deters a certain amount of investment that would be commercially viable in the absence of taxation. Conventional estimates suggest that the UK corporation tax adds one or two percentage points to the cost of capital.<sup>1</sup> This means that investment programmes that

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<sup>1</sup>See, for example, Bond, S., Denny, K. and Devereux, M. (1993), 'Capital allowances and the impact of corporation tax on investment in the UK', *Fiscal Studies*, vol. 14, no. 2, pp. 1-14.

might be required to earn a return of, say, 10 per cent in the absence of corporation tax will instead have to earn a pre-tax return of 11 or 12 per cent in the presence of corporation tax. Projects that do not earn this margin will not be viable on an after-tax basis, and so some investment spending will be discouraged. Some estimates suggest that investment might be increased by as much as 5 per cent if this tax obstacle were removed.<sup>2</sup>

The UK is not alone in having a corporate income tax that deters investment. But the UK does stand out in allocating a lower share of GDP to investment than other G7 countries. This is only partly explained by the UK's exceptionally low level of housing investment. Even when housing investment is excluded, gross fixed investment has been at least 1 per cent of GDP lower in the UK than in Germany, France or Italy, as the figures in Table 8.1 show.

**Table 8.1: Investment as a percentage of GDP**

	<i>Japan</i>	<i>Italy</i>	<i>Germany</i>	<i>France</i>	<i>US</i>	<i>UK</i>
<i>1980-93</i>						
Gross fixed capital formation	29.7	20.6	20.5	20.5	18.2	17.3
Gross fixed capital formation excluding residential construction	24.1	14.8	14.6	14.9	13.9	13.7
Gross fixed capital formation: machinery and equipment	11.5	9.7	8.6	8.8	8.0	8.0
<i>1960-93</i>						
Gross fixed capital formation	31.3	22.8	22.4	22.4	18.4	18.1
Gross fixed capital formation excluding residential construction	25.1	15.9	15.9	15.5	13.8	14.4
Gross fixed capital formation: machinery and equipment	12.4	9.8	8.7	8.9	7.6	8.4

Source: Bond, S. and Jenkinson, T. (1996) 'The assessment: investment performance and policy', *Oxford Review of Economic Policy*, vol. 12, no. 2, pp. 1-29. Based on *OECD Historical Statistics, 1960-93* (1995 edition). Figures for Germany refer to West Germany.

It does not necessarily follow that we would be better off if investment were higher in the UK. It is certainly possible for countries to devote an inefficiently high share of their resources to investment. However, the burden of proof would appear to lie more with those who claim it is optimal for UK investment to be comparatively low than it does with those who suggest that low investment is a cause for concern.

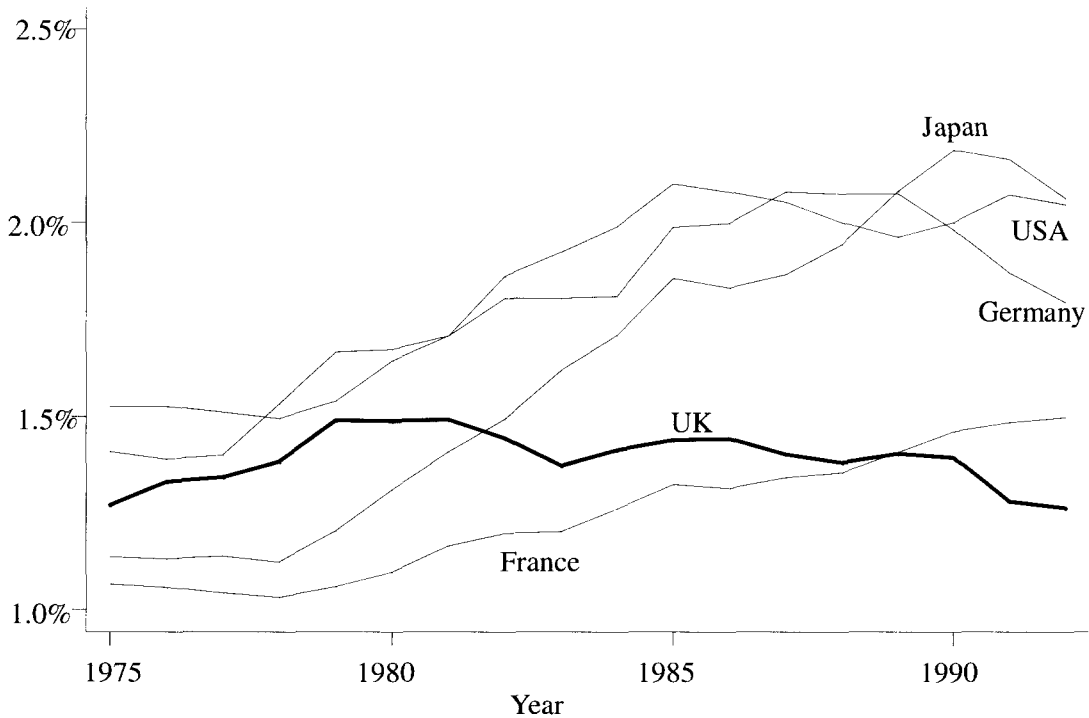
Should the next Chancellor seek to raise UK investment, reform of the corporate tax system is one area of government policy that could be used to achieve this aim. The basic problem with the current UK corporation tax is not that capital allowances are too low in relation to true rates of depreciation — except for commercial buildings,

<sup>2</sup>See Bond, Denny and Devereux, op. cit.

capital allowances are if anything more generous than typical commercial depreciation provisions, although the benefit of this is partly eroded by inflation. The key reason why corporation tax increases the cost of capital is rather the absence of any tax relief for the cost of using equity finance, particularly retained profits, to finance investment spending. This suggests that any increase in investment allowances should be targeted at investment financed by equity. The proposal by the IFS Capital Taxes Group to introduce a new allowance for corporate equity would both promote neutrality between different sources of finance and between different types of capital expenditure, and promote investment by removing the source of the present tax bias against investment spending.<sup>3</sup>

Similarly, the share of UK GDP devoted to business enterprise R&D expenditure has remained stagnant over a period when it was rising in all other G7 countries (see Figure 8.5). If this world-wide trend toward more R&D indicates that industrial production is becoming increasingly science-based, then the UK might be in danger of becoming a relatively low-tech economy. As with physical investment, it is not necessarily the case that more R&D spending would make us better off, and before we introduce any additional incentives for R&D, we would need to have some idea of how much and what kind of R&D we would optimally want.

**Figure 8.5: Business enterprise R&D as a percentage of GDP**



Note: For historical consistency, the UK figures exclude R&D carried out by the Atomic Energy Authority after 1986.

Source: OECD ANBERD and STAN datasets.

<sup>3</sup>For an overview, see Bond, S., Devereux, M. and Gammie, M. (1996), 'Tax reform to promote investment', *Oxford Review of Economic Policy*, vol. 12, no. 2, pp. 109–17. For more detail, see IFS Capital Taxes Group (1991), *Equity for Companies: A Corporation Tax for the 1990s*, IFS Commentary no. 26, April 1991.



Even if we are doing too little, should the government consider introducing new fiscal incentives for R&D?<sup>4</sup> There are several issues to note in answering this question. R&D expenditure is already treated more generously than capital expenditure in the UK. The vast majority of R&D spending takes the form of current expenditure (largely employing research personnel) which can be expensed immediately against profits for corporation tax purposes. Some capital expenditure on equipment used for R&D in the UK also qualifies for 100 per cent first-year allowances under the scientific research allowance, although a common complaint from industry is that, under the current rules, a significant fraction of capital expenditure for R&D purposes does not qualify for this allowance. Nevertheless, the present tax treatment of R&D is broadly neutral, i.e. the required rate of return on investment in R&D is left basically unchanged by the presence of corporation tax.

Given that the tax system is broadly neutral with respect to R&D investment, the rationale for reform would be to counteract a failure in the market to provide the appropriate incentives for firms to conduct R&D. What are these market failures? The most commonly cited reason is that there are positive externalities to R&D, i.e. the benefits from one firm conducting R&D spill over to other firms and other parts of society.<sup>5</sup> Firms cannot fully appropriate the value of the R&D they conduct, and the tax system could be used to bring the return to the firm from doing R&D up to the level of the true benefit to society. However, it is not clear that the tax system is the best policy instrument to use. For example, strengthening the patenting system might be more effective.

On the other hand, several other countries now offer substantial subsidies to R&D.<sup>6</sup> To the extent that R&D is a very mobile activity with a high rate of return, it may be that it is more sensitive to small changes in the cost of capital than physical investment is. But the effective design and implementation of fiscal incentives for R&D are problematic, as evidenced by the difficulties other countries (notably the US) have faced. If we were to introduce special incentives, we would need to be clear about exactly what market failures we were seeking to address. Any such incentives would need careful design, and ideally need to be seen as an enduring part of the tax system. And given our proximity to and increasing integration with other EU economies, it may be that any successful initiative would need to be Europe-wide.

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<sup>4</sup>For a more detailed discussion of this issue, see Griffith, R., Sandler, D. and Van Reenen, J. (1995), 'Tax Incentives for R&D', *Fiscal Studies*, vol. 16, no. 2, pp. 21–44.

<sup>5</sup>Another commonly cited reason for introducing an R&D tax credit is to overcome failure in the financial markets to provide sufficient finance for R&D projects. First, there is little evidence that this is actually the case. Second, even if it were the case, reforms targeted at improving the availability of finance for R&D would probably be a more appropriate policy response than R&D tax credits. A shortage of skilled labour is also suggested as a cause of UK underperformance in R&D, but again it is unclear that the introduction of an R&D tax credit would be a sensible response.

<sup>6</sup>Among the G7 countries, Canada, France, Japan and the US have R&D tax credits of varying generosity.

## 8.4 The Taxation of Company Dividends Revisited

The taxation of dividends in the UK continues to be an interesting issue, not least to the Treasury and the Inland Revenue. Under the current imputation system, the government repays tax on dividends to tax-exempt shareholders. This has become increasingly expensive for the Treasury, given the increase in exempt institutional share ownership and the rise in dividend payout ratios over the last decade. From the Inland Revenue's perspective, the imputation system is under attack from two sources: from Europe, where legal challenges by international companies, such as Pirelli and Hoechst, may undermine elements of the system; and in the UK, where companies have devised some ingenious methods to maximise the benefit of tax repayments to their shareholders. A future government short of revenue might find that a tempting solution is to reduce the rate of advance corporation tax (ACT), which reduces the incentive for these actions and raises additional revenue in the process.

### *The Imputation System*

The UK operates an imputation system for the taxation of companies and shareholders. It is designed to reduce the 'double taxation' of dividend income which arises when there is no integration between corporate and personal income taxes. Companies are liable to tax at a rate of 33 per cent on their taxable profits, but this tax is paid in two instalments. If the company pays a dividend out of its profits, advance corporation tax (ACT) is payable at a rate of 20/80ths of the actual dividend payment (known as the net or cash dividend), or 20 per cent of the dividend plus the ACT (known as the grossed-up or gross dividend). The company has to pay ACT soon after it pays the dividend, but can normally deduct that ACT payment from its total corporation tax bill when it comes to settle up with the Inland Revenue later.<sup>7</sup> The tax due after ACT has been offset is known as mainstream corporation tax (MCT).

Shareholders receiving a dividend will usually receive credit for the ACT paid on that dividend in calculating their income tax liability. For example, if a shareholder receives a cash dividend of £1, ACT of 25p will already have been paid by the company. This represents 20 per cent of the gross dividend, and since the rate of tax on dividend income is 20 per cent for basic- and lower-rate taxpayers, those shareholders will not owe any more tax. Higher-rate taxpayers will have to pay an extra 25p in income tax, making their total tax payment 50p, or 40 per cent of the gross dividend, whilst tax-exempt shareholders will receive a refund of 25p from the Inland Revenue.

This last point is very important, since it means that for every £1 of post-corporation-tax profits paid out by companies to tax-exempt shareholders, these shareholders actually receive £1.25. This comprises the £1 cash dividend from the company and in effect a 25p repayment of corporation tax. Since corporation tax is not repaid to tax-exempt shareholders when profits are retained by firms, these shareholders have a sizeable tax preference for profits to be distributed. This system also gives investors

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<sup>7</sup>Usually nine months after the end of the company's accounting period.

an incentive to arrange their share ownership through tax-exempt institutions such as pension funds, or through Personal Equity Plans.

Two challenges to the continued operation of this system relate to the way that companies pay dividends to one another, and to ways, other than ordinary dividends, in which firms can also distribute cash to their shareholders.

### *The UK Dimension*

As explained above, dividend payments are tax-efficient for tax-exempt shareholders but not for higher-rate taxpayers. Ordinary dividends are paid to all shareholders, which reduces their overall tax advantage. If companies could find a way to pay dividends to tax-exempt shareholders only, this would allow them to exploit the tax advantage of dividends for these shareholders, without imposing a higher tax bill for top-rate shareholders. This outcome, known as 'streaming', would make the imputation system considerably more expensive for the Treasury — it would result in the repayment of more tax credits to exempt shareholders and less income tax revenue from top-rate shareholders.

In last year's Green Budget, we discussed the rash of special dividend payments and share repurchases being carried out by some companies. At the time, many people expressed concern that these payments were particularly tax-advantageous for some groups of shareholders. However, the tax treatment of special dividends is no different from the tax treatment of ordinary dividends, and special dividends are also paid to all shareholders. The term 'special' simply indicates that the payment is one-off, and will not usually be repeated. Since all shareholders receive the special dividend, the tax system is not being manipulated to stream dividend payments to those shareholders who have a preference for dividend income.<sup>8</sup>

The situation is slightly different if the company distributes cash to its shareholders by buying back its own shares. Repurchases made through the market are not usually taxed as distributions, and shareholders receive capital gains tax treatment for the proceeds of the sale, not income tax treatment. But repurchases made 'off-market' — i.e. through approaching individual groups of investors — do normally carry a tax credit on the part of the sale price that counts as a dividend. Since these share repurchases can be targeted towards tax-exempt shareholders, this does introduce an element of streaming.

The Inland Revenue retains some discretion in the treatment of share repurchases, and can apply anti-avoidance provisions if it considers the tax system is being abused. A number of large share repurchases have been approved in recent years, but there are now some indications that the Revenue is becoming more hostile.

One example is of particular interest. Reuters distributed £350 million to shareholders through an off-market repurchase in 1993, but has recently announced that it will not be carrying out a similar buy-back this year because it has not received comprehensive tax clearance. Instead, Reuters has announced an innovative method of returning cash to its shareholders which, if successful, could result in a high degree

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<sup>8</sup>It may be easier for firms to announce the payment of special dividends in advance, allowing tax-exempt shareholders to buy their shares in time to receive the special dividend and tax credit, but the difference between special dividends and ordinary dividends in this respect is only one of degree.

of streaming. It is proposing a bonus issue to its shareholders of a new class of *special dividend share*. Each share entitles the holder to six special dividend payments of 125p each, spread over the next three years, after which the shares will be delisted. These shares will be issued to Reuters's shareholders in relation to their existing holdings of ordinary shares, but will then become tradable on the stock market. Table 8.2 presents the post-tax value of each 125p cash dividend payment, and confirms that these are each worth 62.5p more to tax-exempt investors than to top-rate taxpayers.

**Table 8.2: Value of a 125p dividend payment for different types of shareholder**

	<i>Basic-lower-rate shareholder</i>	<i>Top-rate shareholder</i>	<i>Tax-exempt shareholder</i>
(1) Cash dividend	125.00	125.00	125.00
(2) Tax credit	31.25	31.25	31.25
(3) Income tax owed (on (1)+(2))	31.25	62.50	0.00
(4) After-tax value (i.e. (1)+(2)-(3))	125.00	93.75	156.25

Reuters believes that its existing shareholders will be able to reclaim the tax credits on the dividends paid on these special dividend shares. However, the key question is whether new owners who purchase these special dividend shares will also be able to reclaim the tax credits. If they can, then taxpaying shareholders will be able to sell their special dividend shares, and tax-exempt shareholders will be able to increase their holdings, allowing the bulk of Reuters's dividend payments over the next three years to be effectively streamed.

Even if Reuters's innovation is successful, not all companies would find it attractive to imitate this development. Companies that are in a 'surplus ACT' position face additional tax costs when dividends are paid.<sup>9</sup> There are also anti-avoidance provisions that might be used by the Inland Revenue to prevent the tax credit being paid to tax-exempt shareholders who buy into these shares just for the benefit of the credit, although there are practical difficulties in applying these to transactions involving large numbers of shareholders. But if special dividend shares are effective in streaming dividends to tax-exempt shareholders, they will increase the cost to the Treasury of maintaining the imputation system.

### ***The International Dimension***

The imputation system is also being challenged from abroad. Existing provisions allow a subsidiary company to pay dividends to its UK parent as 'group income', i.e. without paying ACT. It is not possible, however, for a UK subsidiary of a European parent company to pay dividends as group income. It must account for ACT. A

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<sup>9</sup>For a detailed discussion of 'surplus ACT', see Freeman, H. and Griffith, R. (eds) (1993), *Surplus ACT: A Solution in Sight?*, IFS Commentary no. 38.

number of companies, notably Hoechst and Pirelli, are alleging that this is unlawful discrimination under European law. If they are successful, UK subsidiaries of European parent companies would be free (unless the UK abolished its group income provisions for all companies) to pay dividends abroad without paying ACT. This would not, in practice, affect their total corporation tax, but would affect the time when the tax was paid.

More seriously, however, the parent companies involved are also claiming repayment of the tax credit on dividends from their subsidiaries on which ACT has been paid. Many UK tax treaties allow foreign parent companies to be repaid part of the tax credit, less an amount withheld by the UK. However, German parent companies (among others) have not benefited from any repayment. Hoechst also alleges that this is discriminatory, contrary to European law. If it is successful before the UK courts or, in due course, the European court, the Treasury will face further claims for tax credit repayments. In addition, there is some doubt whether the withholding the UK makes from treaty payments to European parent companies is valid under the European Parent/Subsidiary Directive.<sup>10</sup>

### *A Possible Development?*

These attacks on the UK system of imputation, both within the UK and at the European level, call into question the viability of this system. The rate of ACT has been reduced from 33 per cent to 20 per cent over the last 17 years. As we explain below, cutting the rate of ACT actually raises revenue for the government. A future government that found itself short of revenue might be tempted to lower this rate still further. In particular, a future Chancellor who reduced the starting rate of income tax below 20 per cent might be tempted to recoup some of the cost by a corresponding reduction in the rate of ACT.

There is an obvious precedent for this. In the Budget of March 1993, Norman Lamont reduced the rate of ACT from the basic rate of income tax (then 25 per cent) to the lower rate of income tax (then, as now, 20 per cent). At the same time, so that 'most ordinary shareholders' would not be affected by the change, the rate of income tax on dividend income was also reduced to 20 per cent for basic-rate taxpayers. These measures were officially estimated to raise about £1 billion a year in additional government revenue.<sup>11</sup>

How is it possible to raise revenue while apparently lowering a tax rate? When the rate of ACT is lowered, the company makes a smaller payment of ACT, but it can then only deduct that smaller amount from its subsequent corporation tax bill. The company therefore has to make a higher mainstream corporation tax payment later.<sup>12</sup> In other words, its total tax bill does not change, although the timing of its tax

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<sup>10</sup>For a full discussion of the legal implications of these challenges, see Gammie, M. and Brannan, G. (1995), 'EC law challenge to the UK corporation tax — the death knell of UK imputation?', *Intertax*, 1995/8–9, pp. 389–405.

<sup>11</sup>*Financial Statement and Budget Report 1993–94*, HM Treasury, March 1993.

<sup>12</sup>This situation becomes more complicated if the company is in a surplus ACT position.

payments does. So it is clear that corporation tax revenue does not fall when the ACT rate is lowered.<sup>13</sup>

In fact, total tax revenue actually increases. This is partly because the extra income tax payable by top-rate taxpayers on dividend income depends on the difference between the rate of ACT and their marginal tax rate of 40 per cent. Thus when the rate of ACT was cut from 25 per cent to 20 per cent, top-rate taxpayers had to pay income tax of 25p for each £1 of cash dividends received, rather than 20p as previously, resulting in a net gain to the exchequer. More importantly, tax-exempt shareholders, such as individuals with no income tax liability or exempt institutions such as pension funds, are only able to reclaim a smaller tax credit from the Inland Revenue. When the ACT rate was reduced from 25 per cent to 20 per cent, the tax credit repaid to tax-exempt shareholders fell from 33p to 25p for each £1 of cash dividends received. Reducing the rate of ACT reduces the size of these repayments, and therefore increases total tax revenue.

Thus when the rate of ACT is reduced, the government gains additional tax revenue at the expense of tax-exempt and top-rate shareholders. This tax increase certainly has further consequences. The value of companies on the stock market is likely to fall, since this reflects the post-tax value of the stream of current and future dividends paid by companies to shareholders. The lower post-tax value of dividends paid to pension funds will eventually have implications either for the level of pension contributions needed to maintain a given final pension, or for the level of pension provision itself. The response of companies and shareholders to these changes may cause some offsetting reductions in tax revenues for the government. However, we can be sure that these losses will only partially offset the main revenue gain for the government. For example, in an extreme scenario, all of the loss to pension funds from lower dividend tax credits could be made up by higher company contributions to pension schemes. These higher contributions could be offset against corporation tax at 33 per cent, but even in this scenario, two-thirds of the revenue gain from lower credits remains in the hands of the government.<sup>14</sup>

Having set out the implications of a lower rate of ACT, we can see why it may be unattractive to cut the rate of ACT below the starting rate of income tax. This would almost certainly presage the end of the imputation system, even if a gradual programme of further reductions in the ACT rate to zero was not explicitly announced. Because share prices are forward looking, this would have much the same effect on the stock market as the immediate abolition of imputation, but would only raise a fraction of the revenue for the government. However, so long as the ACT rate is kept in line with the lower rate of income tax, the survival of the imputation system remains no less credible than it is at present, and the effect on share prices is much reduced.

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<sup>13</sup>This is correct in the long run. There is a one-off reduction in corporation tax receipts in the fiscal year in which the rate of ACT is reduced, since in that year ACT is paid at the new lower rate whilst the ACT set-off against corporation tax may be based on ACT paid at the previous higher rate.

<sup>14</sup>In the longer term, it is likely that higher pension contributions would be reflected in lower wages rather than lower profits. However, the implications for government revenue are similar. Any reduction in capital gains tax revenue resulting from lower share prices is also likely to be very small.

The rate of ACT was reduced from 33 per cent to 25 per cent between 1979 and 1988, in line with reductions in the basic rate of income tax. After the lower 20 per cent tax band had been introduced, Norman Lamont took the opportunity to reduce the ACT rate to this level. These reductions in the rate of ACT have not provoked the collapse of the stock market, and it should be remembered that pension funds thrive in the US without any similar advantage from an imputation system. The precedent for cutting the rate of ACT in line with the starting rate of income tax has been set by the current government. We would not be surprised if an incoming Labour Chancellor were tempted to follow suit.

## **8.5 Implementing a Windfall Levy**

The privatised utility companies are all liable to corporation tax. Collectively, they now account for around £2 billion in corporation tax revenue annually, or nearly 10 per cent of total corporation tax receipts. The one group of privatised firms that pay relatively little corporation tax are the water companies. This is partly the result of these firms being granted a high stock of capital allowances when they were privatised, and partly the result of their continuing high levels of capital expenditure.

There is no doubt that most of the privatised utility companies have been highly profitable. Many of these firms have been successful at reducing their costs at a faster rate than was anticipated by their regulators when initial price caps were set. This is one reason why the stock market value of these companies has risen substantially above the level at which they were floated. So shareholders who owned shares in these firms in the early years undoubtedly did well.

One of the Labour Party's few current commitments in the area of taxation is to introduce a one-off windfall levy on these privatised utilities. The precise details of this levy have not been spelled out. In this section, we consider some of the issues that would need to be addressed if the windfall levy were ever to be implemented, and illustrate the extent to which liability to the windfall levy might vary between sectors and companies, according to the particular basis on which the levy were charged.

### *A Tax in Search of a Rationale*

The principal arguments used to justify a windfall levy are that lax regulation has allowed these firms to earn excessive profits and/or that these firms were sold off too cheaply when they were privatised. These arguments are closely related, since the market value of regulated companies depends crucially on how tough the regulatory regime is expected to be. It may be that they now appear to have been sold 'too cheaply' principally because price regulation was expected to be tougher than it has so far proved to be. On the other hand, it is possible to believe they were sold for too little, even if one does not subscribe to the view that regulation has been flawed.

With the benefit of hindsight, it is hard to dispute that many of these assets could have been sold for a higher price. Again with the benefit of hindsight, there is little doubt that the initial subscribers to many of the flotations would have been willing to pay the government rather more than they were asked to — they could have paid substantially more and still enjoyed a decent return on their investment.

Attractive as it may seem to use the benefit of hindsight to rectify past mistakes, retrospective taxation raises many difficulties. In particular, in this case, it would set an awkward precedent that might make it harder for future governments to sell assets to the private sector, or, perhaps more worryingly, to convince private investors that today's rules of the game will not be changed retrospectively in areas such as the Private Finance Initiative. However, a major problem with the windfall levy is that it fails to tax the same investors who actually benefited from the earlier 'windfall' gains.

It would in principle be possible to identify the individuals and institutions who subscribed to the flotation of any particular set of utilities, and charge a windfall levy on those investors in proportion to their initial shareholdings or capital gains.<sup>15</sup> This would not be achieved by Labour's proposal for a windfall levy on the utility *companies*. The investors affected by this tax would be today's shareholders, or, more accurately, the investors who are (or were) holding shares in these firms at the time when the prospect of the windfall levy is discounted into their stock market valuations. Given the high level of turnover in company shares, and the short holding periods of many stock market investors, this group of shareholders may be quite different from the individuals and institutions who enjoyed the earlier windfall gains.

Given that there is no close connection between the investors who benefited from windfall gains and the shareholders who would bear (or who have borne) the burden of the windfall levy, this supposed rationale for the windfall levy offers little guidance as to the form this levy should take. This contrasts with the case of the 1981 special tax on bank deposits, which is sometimes suggested as a precedent for Labour's proposed windfall levy. In 1981, the government's tight monetary policy was reflected in unusually high interest rates. Deposits held in current accounts with banks did not pay any interest at that time, so high interest rates resulted in high income on lending for the banks, but were not fully reflected in higher interest payments on bank deposits. This policy therefore contributed to unusually high profits in the banking sector, and this link was used as a reason for subjecting the banks to a levy of 2.5 per cent of their non-interest-bearing sterling deposits. The special tax on bank deposits had the merits of being applied to a well-defined set of firms and of being charged on a tax base that was coherently related to the reasons given for introducing the tax. It also had the advantage of being introduced at around the same time as the banks were earning these windfall profits, and not several years later.

In contrast, it is not at all clear which privatised firms would be liable to the windfall levy, or what basis would be used to decide how much each firm would be charged. As we illustrate below, these considerations would make a big difference to the windfall levy liability of individual firms.

### ***Which Firms Could Be Liable?***

The privatised companies can be divided into those that operate in regulated markets and those that operate in more competitive markets. The latter include firms such as British Airways and British Steel which are subject to fierce international competition. As the windfall levy proposal is frequently linked with criticism of the

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<sup>15</sup>Alternatively, if the case for the windfall levy is linked with weak regulation, those individuals and institutions holding shares in these companies at the time of the regulatory reviews could be identified.



utility regulators, it seems likely that it would be restricted to the regulated utility companies. These include British Telecom and British Gas, as well as the water companies and the regional electricity companies. There is, however, a grey area between the regulated and unregulated sectors. The electricity generators, for example, are not formally subject to price regulation by the Office of Electricity Regulation, but the regulator has intervened in the market for electricity generation. Indeed, as the fiercest criticism is often reserved for the more recently privatised electricity and water sectors, it is possible that the windfall levy would be applied only to firms in those sectors.

There may be some legal difficulties in singling out a particular group of firms for the windfall levy. For example, if the tax were applied to 'regulated firms', it may be difficult to exclude regulated firms such as Mercury that were not privatised. Alternatively, if the tax were applied to 'privatised regulated firms', it might prove difficult to exclude, say, British Telecom without provoking charges of discrimination. At present, there seems to be no consensus regarding how serious these legal obstacles may be. However, there are many precedents for subjecting particular groups of companies to special tax regimes — for example, brewers, tobacco firms, North Sea oil producers and, indeed, banks. Moreover, since a new government could undoubtedly make regulation more painful for the utility companies, they might well be persuaded that it is better to cut their losses and accept the windfall levy.

Whichever group of firms were selected, a further question concerns whether they would be taxed on the basis of their total business or just that part of their business that is subject to regulation. Some of these firms inherited unregulated activities when they were privatised, and others have diversified their activities since they were privatised, in areas such as retailing or environmental consultancy. For example, about 12 per cent of the sales of Southern Electric and 16 per cent of the sales of United Utilities are now derived from unregulated activities. Opinions may well differ as to whether the windfall levy is primarily a belated substitute for tighter regulation — which would suggest relating the liability to these firms' regulated business only — or whether it is primarily intended to recoup revenue lost when these assets were sold 'too cheaply' — in which case the whole of the income subsequently generated by these assets might be considered fair game.

#### ***How Could the Levy Be Calculated?***

The other major question is what indicator of these companies' 'ability to pay' would determine their liability under the windfall levy. Although this could be based on the level or growth of the companies' stock market valuations, there are no UK precedents for a tax levied on companies to be based on their own share prices. The windfall levy seems more likely to be related to some measure of company profits, but this leaves huge scope for debate as to which measure of profits is most appropriate and over what period this should be measured.

The tax base used for corporation tax purposes is not likely to be used for the windfall levy. As noted above, the water companies have paid relatively little corporation tax, as a result of relatively generous capital allowances. If the same measure of taxable profits determined liability to the windfall levy, the water

companies would pay relatively little windfall levy as well, which would seem to defeat one of the objectives.

A possible choice lies between a measure of profits and a measure of 'excess' profits. A tax based on excess profits, or economic rents, would exempt an estimate of 'normal' profits, i.e. the required return on capital invested. Accounting measures of profit subtract the required return on capital borrowed (i.e. interest payments) but do not subtract any measure of the required return on shareholders' funds. Normal profits could be estimated in practice as some interest rate multiplied by an estimate of the net value of the firm's assets; and excess profits could be measured by allowing this estimate of normal profits as a deduction in place of interest payments. The utility regulators also have to rely on estimates of normal profits in deciding at what level to set the utility price caps. To the extent that the windfall levy is advocated on the grounds that the utilities have been allowed to earn excessively high levels of profits in the past, this would suggest that a tax based on excess profits would be more appropriate than a tax based on accounting profits.

Whichever measure of profits were used, the liability of individual firms to the windfall levy would also depend on the time period over which profits are measured. There are three reasons why this would be likely to refer to some past period rather than a measure of profits in the current year. First, some of the privatised utilities, such as Eastern Electricity, have been taken over by other firms. Such firms are no longer required to publish separate accounts for their shareholders, and although they do provide separate accounts for the utility regulators, there is some concern about the ease with which such figures can be manipulated, for example by reallocating costs from unregulated to regulated parts of the company. Second, it is now well known that the windfall levy is a possibility, so that current measures of profits may be affected by creative accounting and/or financial engineering in an attempt to minimise whatever firms suspect may determine their windfall levy liability. Third, the use of any single year's profit measure would be inherently arbitrary.

These considerations suggest that it would be more reasonable to base the windfall levy on a cumulative measure of profits or excess profits, summed or averaged over some past period. There is an argument that this period should be the same for all companies, which would suggest something like total profits over the period 1992/93 to 1994/95. In particular, if the windfall levy were applied to British Telecom and British Gas, then cumulative profits since privatisation might be considered to be an inequitable tax base, since these companies were privatised in the mid-1980s and have therefore been earning profits in the private sector for much longer than the electricity and water companies.<sup>16</sup>

Other details would certainly affect the liability to the windfall levy, including whether corporation tax payments over the same period were allowed as a deduction and whether profits earned in different years were cumulated at current prices or constant prices. Different utility companies and sectors have much to gain or lose from how the windfall levy is implemented. This tax is already proving to be a windfall for the many consultants and lobbyists that these firms employ.

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<sup>16</sup>Average annual profits over different periods would be less sensitive to this objection, but even then there would be problems in comparing profit levels earned at different phases of the business cycle.

***Some Illustrative Calculations***

To illustrate the size of these potential differences, we have used published accounting information on the privatised utility companies to simulate what proportion of the windfall levy each firm would pay under some alternative possible tax bases. *We stress that these are purely hypothetical tax bases, and are not in any way intended as forecasts of what companies would actually pay.* Rather, they serve to highlight how sensitive the distribution of possible windfall levy liabilities is to alternative assumptions about which companies are included and how their profits are measured.

We consider imposing the windfall levy on two possible sets of companies: a narrow group comprising the privatised water and electricity firms, and a broader group that additionally includes British Telecom and British Gas. We consider basing their tax liability on two measures of profits: published pre-tax accounting profits, and an estimate of excess profits derived from pre-tax accounting profits in the way outlined above.<sup>17</sup> We also consider cumulating these measures of profits over two different periods: the three financial years 1992/93 to 1994/95, or all years from privatisation to 1994/95.<sup>18</sup> Full details of the data used and the hypothetical tax computations are reported in Appendix C.

Table 8.3 reports how the liability to the windfall levy would be distributed across different sectors in each of these scenarios. What emerges most clearly from these results is that a major determinant of the windfall levy liability for all sectors would be whether the tax is applied to British Telecom or not. British Telecom is the largest of the privatised firms, and alone pays around a third of the total corporation tax paid by the privatised utility companies. These results suggest that if the windfall levy were based on either pre-tax profits or excess profits, British Telecom would also pay around a third of the total windfall levy revenue. But because of its substantial corporation tax payments, British Telecom would pay a smaller share of the windfall levy if this levy were based on post-corporation-tax profits. For example, British Telecom's share would fall to about a quarter using post-tax profits over the period 1992/93 to 1994/95, or about a fifth using excess post-tax profits over this period. The water companies would pay a higher share of the windfall levy in this case.

Other aspects of the tax base certainly matter for particular companies. If the windfall levy were applied to British Telecom and British Gas, it is important whether or not profits are measured over a common period — these firms would pay substantially more windfall levy if cumulative profits since privatisation were used as the tax base. If British Gas were subject to the levy, it has most to gain from a tax based on excess profits rather than accounting profits — British Gas has reported a lower pre-tax rate of return on the net book value of its assets than the other sectors, and this is particularly the case in the last three years.<sup>19</sup> Taxing excess profits would also be

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<sup>17</sup>For this illustration, normal profits are estimated simply as 10 per cent of the net book value of total assets employed.

<sup>18</sup>Except in the case of Northern Ireland Electricity, where we have included the accounting year ending 1995/96, so as to have three years of data after privatisation for this company.

<sup>19</sup>Because pre-tax profits at British Gas were lower than our estimate of 'normal profits' in the period 1992/93 to 1994/95, this results in a negative estimate of 'excess profits', and we have assumed that the windfall levy liability would be zero in this case.

more generous to the water companies than the electricity companies, and this would make even more difference to some individual companies.

**Table 8.3: Estimated shares under some hypothetical windfall levy bases**

<i>Sector</i>	<i>Pre-tax profits (all years)</i>	<i>Excess pre-tax profits (all years)</i>	<i>Pre-tax profits (three years)</i>	<i>Excess pre-tax profits (three years)</i>
<i>Narrow group</i>				
Water	36%	19%	32%	14%
RECs	34%	44%	35%	45%
Generators	30%	37%	33%	41%
<i>Broad group</i>				
Water	15%	7%	20%	9%
RECs	14%	17%	22%	31%
Generators	12%	15%	21%	28%
Gas	15%	5%	6%	0%
Telecom	44%	56%	30%	33%

Note: The figures show the shares of the total windfall levy liability paid by each sector under the alternative hypothetical tax bases. Figures may not sum exactly to 100 due to rounding. The water sector contains the 10 water service companies privatised in 1990, i.e. Anglian, Northumbrian, North West, Severn Trent, Southern, South West, Thames, Welsh, Wessex and Yorkshire Water. The RECs sector contains the 12 regional electricity companies privatised in 1990, i.e. Eastern, East Midlands, London, Manweb, Midlands, Northern, Norweb, Seeboard, Southern, South Wales, South Western and Yorkshire Electricity. The electricity generators include National Power, Powergen, Scottish Power, Scottish Hydro-Electric and Northern Ireland Electricity (we have excluded British Energy and National Grid, for which we have insufficient accounting information). The gas sector contains British Gas and the telecom sector British Telecom.

The scope for windfall levy payments to be very different under alternative, seemingly reasonable, assumptions about how this levy could be implemented is one of the more worrying aspects of the proposal. This creates unnecessary uncertainty for the companies affected, and diverts resources from more productive uses. That any particular tax base could be labelled arbitrary and inequitable reflects the more fundamental problem that the incidence of the windfall levy would not fall on the same investors who enjoyed windfall gains, either as a result of privatisation or past regulation.

# 9 Issues in Direct Taxation

## 9.1 Longer-Term Options for Lowering Taxes

There has been a great deal of pre-election talk, on both sides of the political fence, about various long-term tax-cutting aims. In particular, the Conservatives have reaffirmed their aim of a 20 per cent basic rate of income tax and the Labour Party has countered this aim with its own long-term aim of a 10 per cent lower rate of income tax.

The Conservatives have frequently claimed that reducing the basic rate of income tax to 20 per cent would improve living standards and improve incentives to work. Successive Green Budgets and other IFS documents have just as frequently shown that living standards are affected by the mix of taxation and public spending and that poor families certainly do not gain substantially from cuts in the rate of income tax. We have also repeatedly shown that any work incentive problems that exist in the UK tax and benefit system are caused by the benefit system in relation to individuals' labour market opportunities.<sup>1</sup> There is no doubt that many problems exist in the UK tax system, but the 75 per cent of tax *not* raised in income tax is generally far more in need of reform than the income tax itself. It is therefore depressing that the Labour Party has entered the fray with an aim of a lower starting rate of income tax of 10 per cent. This is naturally subject to very similar criticisms to a 20 per cent basic rate.

But as both main political parties seem intent on focusing on the rates of income tax, we start this chapter with a comparison of the distributional effects of these policies. Box 9.1 shows the changes to the income tax system that have been introduced over the last 17 years. The rest of the chapter focuses on other areas of direct tax reform that are possible in the next Parliament, regardless of the political party in charge.

### *Introducing a 20p Basic Rate of Income Tax*

The annual cost of imposing a 20p tax rate on all taxable income up to the basic-rate limit (currently £25,500) is around £7.5 billion. Distributional effects are presented in Figure 9.1. It is evident that introducing a 20p basic rate results in the smallest gains to the poorest groups of the three tax-cutting measures considered in the graph. The proportionate gains increase as we move up the income distribution.

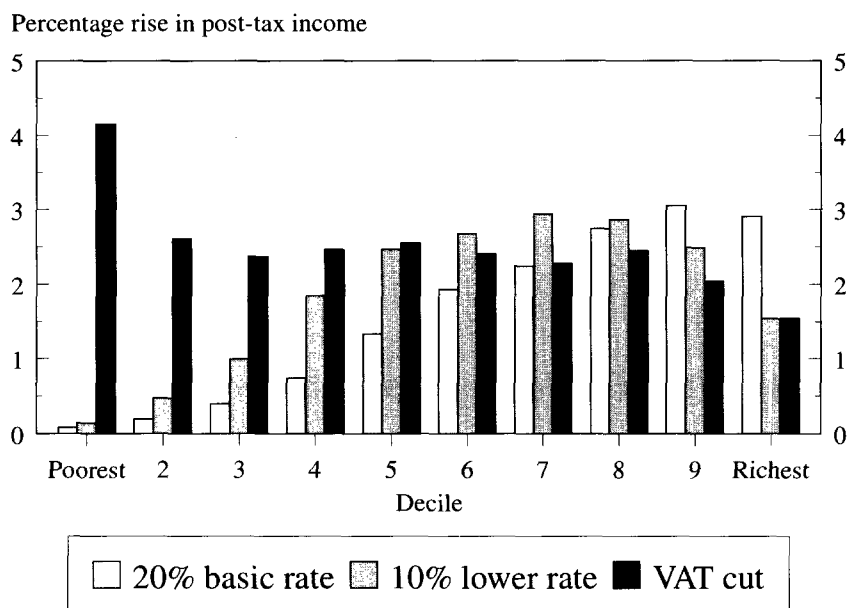
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<sup>1</sup>For example, a family receiving family credit and housing benefit currently faces a marginal tax rate of 96.85 per cent, due to very high benefit withdrawal rates. If the lower rate of tax were cut to 10 per cent, its marginal tax rate would only fall to 96.4 per cent.

**Box 9.1: Income tax under the Conservatives**

<i>Budget</i>	<i>Measures</i>
1979	Basic rate of income tax cut from 33% to 30%. Top rate on earned income cut from 83% to 60%.
1980	Reduced rate band of 25% abolished.
1981	Personal allowances frozen in cash terms, implying a cut in their real value.
1982–85	Real increases in personal allowances.
1984	Life assurance premium relief abolished. Investment income surcharge abolished.
1986	Basic rate reduced from 30% to 29%.
1987	Basic rate reduced to 27%.
1988	Real increases in personal allowances. Basic rate reduced to 25%. All rates above 40% abolished.
1990	Basic-rate limit frozen. Higher rate relief for mortgage interest tax relief abolished.
1991	Married couple's allowance (MCA) frozen.
1992	Lower-rate band reintroduced at 20% on first £2,000 of taxable income. MCA and basic-rate limit frozen.
1993, Spring	Lower-rate band widened to £2,500, and to £3,000 from April 1994. Personal allowances and basic-rate limit frozen. MCA frozen, and from April 1994 restricted to 20%. From April 1994 mortgage interest tax relief restricted to 20%.
1993, Nov.	Personal allowances and basic-rate limit frozen. MCA frozen, and from April 1995 restricted to 15%. From April 1995 mortgage interest tax relief restricted to 15%.
1994	Basic-rate limit increased in line with inflation. Lower-rate band widened to £3,200.
1995	Basic rate cut to 24%. Real increases in personal allowances and MCA. Lower-rate band widened to £3,900. Real increase in basic-rate limit.

**Figure 9.1: Distributional effects of income tax cuts versus VAT cut**



Note: Income is net of indirect as well as direct tax for the purpose of comparison.

### ***Introducing a 10p Lower Rate of Income Tax***

A 10p lower rate, costing the same as our 20p basic rate reform,<sup>2</sup> would be of greater value to poorer households, as illustrated in Figure 9.1. Proportionate gains still increase up to the seventh decile, but there are smaller gains at the top of the income distribution. Non-taxpayers still gain nothing.

The simple distributional comparisons between the two long-term aims of the two main political parties show that Labour's plan helps poorer families more than the Conservative proposal. However, raising allowances would be better still and, if any party were really interested in reducing the tax burden on lower-income households, it would reduce indirect taxes, such as VAT. The effects of a reduction in the rate of VAT are considered below.

### ***Reducing the Rate of VAT***

Neither a 20p basic rate nor a 10p lower rate of income tax would bring any real benefit to the very poorest households, i.e. those that do not pay income tax (roughly 30 per cent of all households). However, a reduction in the rate of VAT, here costing the same as the two income tax reforms considered, provides significant benefits in this respect, as Figure 9.1 clearly illustrates.

Our reform involves cutting the VAT rate to 12.5 per cent and would cost around £7.5 billion. According to HM Treasury's *Tax Ready Reckoner* (August 1996), the key results from which are reproduced in Appendix B, a cut in the rate of VAT by five percentage points would cost almost double this figure. The reason for this discrepancy is that the data we are using for our analysis (the Family Expenditure

<sup>2</sup>The width of the lower-rate band in this reform is £4,000; mortgage interest tax relief and the married couple's allowance are both restricted to 10 per cent.

Survey) significantly under-reports household spending, so that the cut in VAT needs to be greater for our purposes. The distributional effects will be very similar, however, as there is no evidence to suggest that under-reporting of spending varies with income.

As Figure 9.1 illustrates, cutting the VAT rate is by far the most progressive means of reducing the tax burden, with the poorest decile gaining the most (the average percentage increase in their post-tax incomes is just over 4 per cent). The proportionate gains fall as we move up the income distribution, with the top decile gaining by less than 2 per cent.

## **9.2 The Scope for Raising Revenue**

In the years ahead, whichever party is in power, pressures on the public finances or a need for headline-grabbing cuts in direct taxation might make revenue-raising measures necessary, and the direct tax system could offer opportunities in this respect. In particular, we consider here the case for restricting the personal allowance and abolishing the married couple's allowance (MCA) and mortgage interest tax relief.

### *Restricting the Personal Allowance*

One way to raise revenue through the income tax system, without increasing tax rates directly, would be to restrict personal allowances. Currently, the personal allowance (PA) is worth most to higher-rate taxpayers (i.e. 40 per cent of £3,765, or £1,506 a year) and the least to lower-rate taxpayers (20 per cent of £3,765, or £753). We have already witnessed restrictions in the MCA since its introduction in 1990, so that it is now worth the same to all eligible taxpayers, i.e. 15 per cent of the allowance. A similar approach could be taken with the PA.

Restricting the PA reduces its value to those paying tax at higher marginal rates. Here we consider the effect of three different means of restricting the PA — making it a restricted allowance at 24 per cent, making it a tax credit at 24 per cent and making it a tax credit at 20 per cent. The impact of these three reforms in terms of the proportionate change in post-tax income for a single person is shown in Figure 9.2. We estimate the savings from a restriction in the PA to 24 per cent to be just under £2 billion; a 24 per cent tax credit would save the government almost £1.5 billion; and additional revenue from a 20p restriction would total around £5.5 billion.

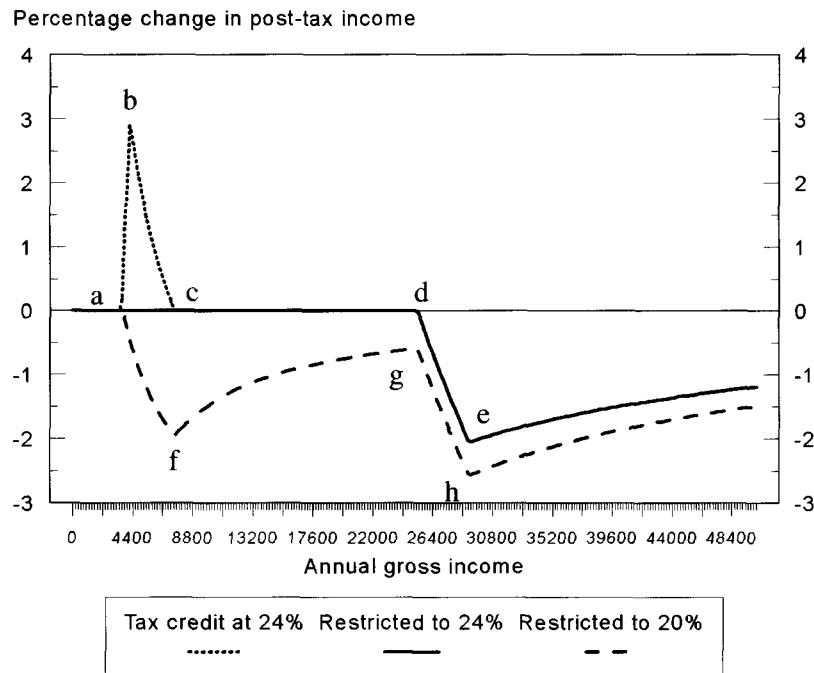
The effect of making the PA a restricted allowance at 24 per cent is shown by the line *ade*. Under this reform, extra revenue comes from those people with incomes above point *d*, with those who lose proportionately most being people with incomes at point *e*, the current start of higher-rate tax. The PA would then be worth the same to higher-rate taxpayers as to basic-rate taxpayers.

An alternative would be to make the PA a tax credit of 24 per cent rather than a restricted allowance. This produces the same results as a restricted allowance at 24 per cent but for the fact that people who currently pay tax at the lower rate of 20 per cent (those with incomes between points *a* and *c* in Figure 9.2) would *gain* from the reform. This is because tax credits have the same value to all taxpayers, regardless of the marginal rate at which they pay tax. In our case, it would be worth £903.60 (24



per cent of £3,765). This is greater than £753 (20 per cent of £3,765), the current value of the PA to lower-rate taxpayers. As the line abcde in Figure 9.2 shows, this reform therefore involves a degree of redistribution in the tax burden from higher income to lower income groups.

**Figure 9.2: Effects of restricting personal allowance**



A final option would be to make the PA a tax credit at 20 per cent.<sup>3</sup> This would produce losses for virtually all taxpayers, as shown in the line afgh in Figure 9.2. The proportionate losses peak at two points, f and h. These are respectively the point at which people currently start paying basic-rate and higher-rate tax. Between f and g, the losses are a flat-rate amount (£150.60 — 4 per cent of £3,765).<sup>4</sup>

### ***Abolishing the Married Couple's Allowance***

The MCA is an additional allowance (on top of the individual personal allowance) available to married couples, that can be transferred between husband and wife. An equivalent additional personal allowance (APA) exists for cohabiting couples with children and for lone parents. The value of the MCA has been gradually eroded since its introduction in 1990: it was pegged at £1,720 until last year's Budget (when it was increased to £1,790); and in April 1994 it was restricted to 20 per cent and in April 1995 to 15 per cent. Given these measures, and the fact that the British income tax system is otherwise based on independent principles (with husband and wife

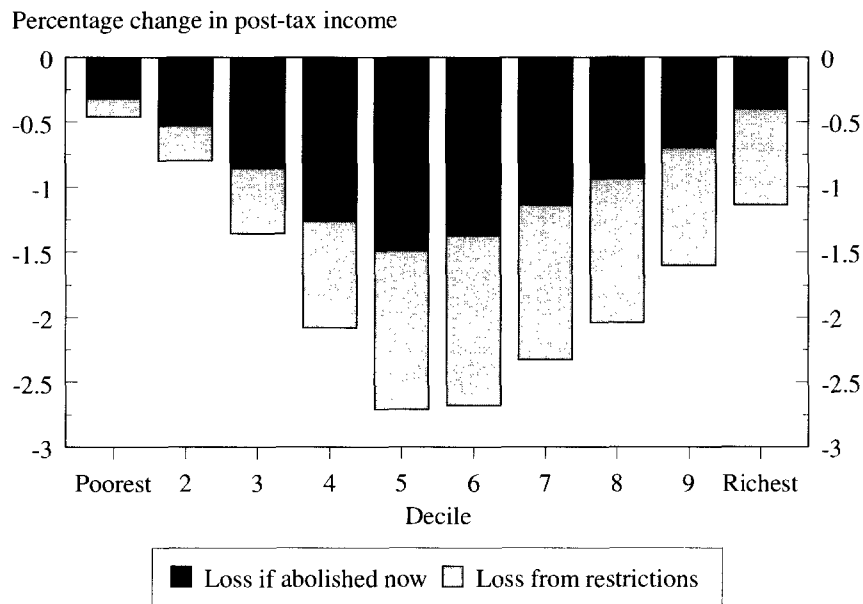
<sup>3</sup>A restricted allowance at 20 per cent would have an identical effect.

<sup>4</sup>Note that the line in Figure 9.2 curves upwards between points f and g, as the figure shows *proportionate* changes, not flat-rate changes.

treated as separate tax entities), the MCA is something of an anomaly and its abolition might, at some time in the future, be deemed appropriate.

We estimate that abolishing the MCA (and APA) would bring the government an additional £3.5 billion in tax revenue. The first-round distributional effects are illustrated in Figure 9.3. All current taxpayers would lose the same cash amount (i.e. 15 per cent of £1,790 = £268.50 per year), so that the proportionate losses for current taxpayers fall as incomes rise.

**Figure 9.3: Distributional effects of abolishing the married couple's allowance and additional personal allowance, and restrictions imposed since 1990**



Note: All figures relate to tax units, not households. Base is *unrestricted* system, i.e. MCA increased in line with inflation since 1990 and rate not restricted to 15 per cent.

Figure 9.3 also illustrates that what remains of the MCA is more evenly distributed across the income distribution than was true at its inception. Those at the top end of the income distribution who receive the MCA have already suffered disproportionately from the restriction of the allowance over the years. Consequently, if the MCA were abolished today, losses to eligible families in the bottom half of the income distribution would be greater than those experienced by richer families. However, losses to the poorest families would still be relatively small on average, because potential MCA recipients in the bottom decile are much less likely to be paying tax and, therefore, benefiting from the allowance.

Inevitably, married couples and unmarried parents would lose out if the MCA and APA were abolished, but some form of compensating reform could be introduced so that family circumstances were still taken into account. One way to do this would be to increase child benefit and perhaps introduce income tax cuts elsewhere to compensate married couples without children. However, this would represent increased government spending and a loss in tax revenue, which might offset any savings generated by abolishing the MCA in the first place.

### ***Abolishing Mortgage Interest Tax Relief***

Mortgage interest tax relief has also seen its real value gradually eroded over time, with a nominal £30,000 ceiling in operation since 1983 and relief restricted to 25 per cent for all borrowers in 1991, 20 per cent in 1994 and 15 per cent from April 1995. This means that mortgage interest tax relief is currently worth the same cash amount to everyone with a mortgage at or above £30,000 — with a mortgage rate of 7 per cent, this amounts to an annual benefit of £315. If mortgage interest tax relief were not restricted to 15 per cent, a higher-rate taxpayer would receive £840 and a basic-rate taxpayer £504 per annum. Abolishing mortgage interest tax relief altogether would save the government almost £3 billion.

There are sound theoretical arguments for claiming that mortgage interest tax relief should never have been introduced in the first place. First, mortgage interest tax relief introduces a bias in favour of investment in housing assets, and second, the value of mortgage interest tax relief has simply been absorbed into house prices. If these claims are true, then current homeowners have gained little, if anything, from reduced mortgage interest payments as they have had to pay more for their property than if tax relief did not exist. The continuous restrictions imposed by the government might be interpreted as an acceptance of these various arguments. The current climate, with low interest rates and a recovering housing market, might be an appropriate time to abolish mortgage interest tax relief altogether.

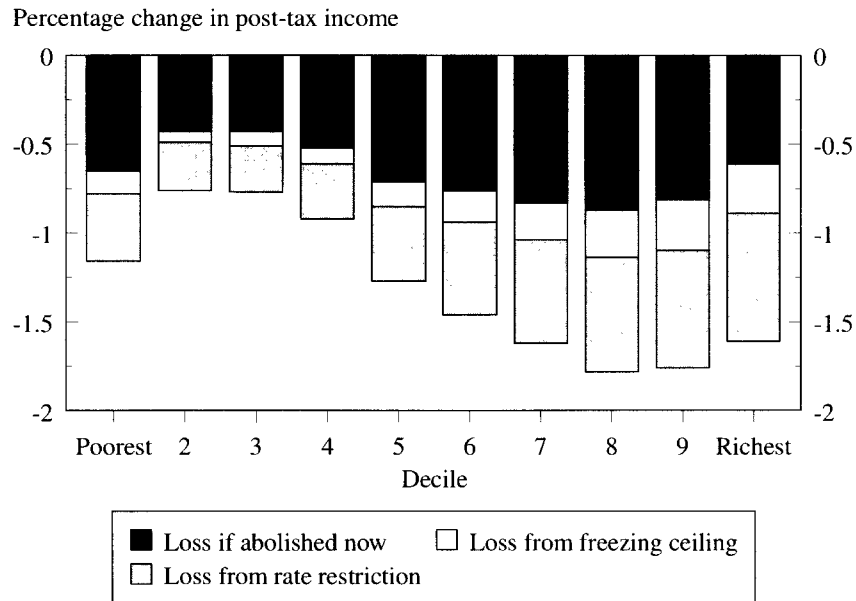
Figures 9.4 and 9.5 show the losses from abolishing mortgage interest tax relief and the restrictions imposed since 1990. From Figure 9.4, it is evident that the abolition of mortgage interest tax relief would result in greater losses at the bottom end of the income distribution than one might first expect, as illustrated by the darkest section of the bars. As with the MCA, this is largely due to the fact that the richest homeowners will already have lost significantly from the gradual erosion of the value of mortgage interest tax relief, so that the relief is distributed more evenly today. The figure also shows how much better off, on average, households in each decile would be if these restrictions had not been imposed. It is those at the top end of the income distribution who have been most severely affected, particularly by the rate restrictions.

However, those at the very bottom of the income distribution also experienced large losses as a result of the restrictions, and Figure 9.4 suggests that they would also lose out disproportionately if mortgage interest tax relief were abolished today. What seem to be driving these results are the very low incomes of those mortgagors who are amongst the poorest households (such as unemployed homeowners), so that the proportionate losses are very large.

Analysis by age band highlights the fact that it is younger homeowners, with the larger mortgages, who would experience the biggest losses from the abolition of mortgage interest tax relief. Figure 9.5 shows that households where the head is aged between 25 and 34 would witness an increase in their mortgage bill of almost £6 a week, with this effect becoming smaller and smaller for older households.

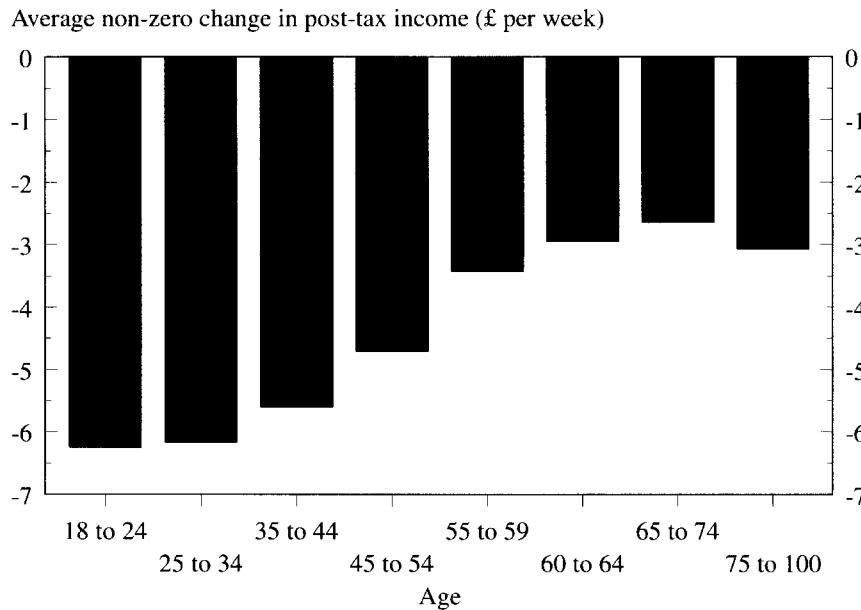
Mortgage interest tax relief is a good example of a feature of the British tax system that probably should never have been introduced, but the removal of which would generate some hardship. Further cuts will probably have to wait until some future Chancellor is desperate for funds.

**Figure 9.4: Distributional effects of abolishing mortgage interest tax relief and restrictions imposed since 1990**



Note: Base is *unrestricted* system, i.e. mortgage interest tax relief ceiling increased in line with inflation (taking 1990 as base year) and rate not restricted to 15 per cent.

**Figure 9.5: Distributional effects of abolishing mortgage interest tax relief, by age band**



### 9.3 Higher-Rate Taxpayers

There has been much recent speculation about increasing taxation for those with the highest incomes. We consider here three options for reform that all involve imposing a 50 per cent rate of tax on the rich, but at different levels of taxable income: £25,500 (the current basic-rate limit), £50,000 and £100,000.

The sample of the 'richest' households in our data (defined as the richest 200,000) is not representative of the population at large, either in terms of their income levels or in terms of their numbers. In order to rectify these differences, we have used information from the Survey of Personal Incomes to make adjustments in this respect.

We estimate the tax revenue increases from each of these reforms at approximately £5.5 billion, £2.5 billion and £1 billion, respectively. There are a number of arguments against imposing higher rates of tax on richer earners. We consider two of these here — the effect on work incentives and the increase in the incentive to engage in tax avoidance.

As a matter of economic theory, higher tax rates have an ambiguous effect on work incentives. On one hand, they reduce the net gain to working harder which would be expected to reduce work incentives (the substitution effect). On the other hand, they reduce a person's net income which may cause them to work harder to make up for this loss (the income effect). Empirical evidence on this point is inconclusive but suggests that there is little effect one way or the other at the income levels and tax rates we consider here.

A more pressing concern is the increased incentive to engage in tax avoidance produced by higher tax rates. At higher income levels, the scope for tax avoidance becomes greater, both because of increased access to specialist advice and because the definition of income becomes more diverse. This second point is illustrated in Table 9.1, which provides a breakdown, reporting the percentage of total income within various ranges coming from different sources.

**Table 9.1: Percentage of income coming from different sources**

<i>Total gross annual income:</i>	<i>Profits and professional earnings</i>	<i>Earnings</i>	<i>Pensions</i>	<i>Investments</i>	<i>Total income</i>
Under £30,000	19%	67%	4%	11%	100%
Over £30,000	24%	62%	3%	11%	100%
Over £50,000	23%	60%	3%	15%	100%
Over £100,000	22%	57%	2%	19%	100%

Source: *Inland Revenue Statistics* (1996), Tables 3.5 and 3.6.

The general pattern to emerge from Table 9.1 is that, as total income rises, the percentage coming from earnings falls (from 66 per cent for all those with income below £30,000 p.a. to 51 per cent of the incomes of those with more than £100,000) and the percentages coming from self-employment profits and investments increase (from 19 per cent to 27 per cent and from 12 per cent to 20 per cent, respectively). These latter groups of income are generally more mobile than earnings, and provide greater scope for tax avoidance measures.

## 9.4 Reforming National Insurance Contributions

### *Employer NICs*

Employer National Insurance contributions (NICs) are a regularly quoted target for reform. In the last two Budgets, the rates of employer NICs have been cut. However, as we shall see, it is not the *rate* but the *structure* of employer contributions which creates the greatest problems.

#### **Box 9.2: The structure of employer NICs, 1996/97**

<i>Weekly earnings</i>	<i>Weekly contributions</i>
0 – £60.99	Zero
£61.00 – £109.99	3%
£110.00 – £154.99	5%
£155.00 – £209.99	7%
£210.00 – £454.99	10.2%
£455.00 and above	10.2%

There are four different rates of employer contributions, and each rate is payable on *all* earnings. This creates four steps in the earnings schedule where an extra 1p of income results in employer NICs increasing by several pounds. For example, if an employee's weekly income is increased from £154.99 to £155, the employer NIC liability increases from £7.75 (5 per cent of £154.99) to £10.85 (7 per cent of £155). As such, the employer faces a marginal tax rate of over 100 per cent.

Employers will inevitably be discouraged from awarding higher wages where this would lead to a substantial jump in their NIC liability. In particular, there is a noticeable clustering in the distribution of earnings just below the first step at £61, which creates rigidities in the labour market, especially for those on low incomes.

A welcome reform, given this undesirable feature, might be to change the system of employer NICs in favour of one more akin to that in operation for employee contributions. Employee NICs were completely overhauled in 1989, with the step structure almost totally removed, so that there now exists a uniform rate on earnings between the lower earnings limit (LEL) and the upper earnings limit (UEL).<sup>5</sup> However, implementation of a similar scheme for employer NICs would be very costly indeed, although these costs could be partially offset by increasing the 'standard' rate of employer contributions (currently 10.2 per cent).

<sup>5</sup>There is also an 'entry fee' of 2 per cent payable as earnings rise above the LEL.

**Self-Employed NICs**

The self-employed receive rather generous treatment as far as National Insurance contributions are concerned. However, their entitlement to National Insurance benefits is also lower. For example, they are not entitled to unemployment benefit (to be replaced by the jobseeker's allowance) or the State Earnings-Related Pension Scheme (SERPS).

The self-employed pay two different classes of NICs — class 2 and class 4. Those whose net profits exceed the 'small earnings exception' (currently £3,430 per annum) pay class 2 contributions at a flat rate of £6.05 per week. Class 4 NICs are paid at 6 per cent on all profits above the 'lower profits limit' (£6,860 in 1996/97) and below the 'upper profits limit' (£23,660 a year). This 6 per cent is the 'equivalent' of employee NICs (but is lower than the employee 10 per cent rate); the self-employed do not pay the equivalent of *employer* contributions. Consequently, the labour costs of a self-employed person will be lower than if they were doing the same job, earning the same amount, but working for someone else.

Because of the potentially substantial NIC advantages of self-employment, the reform of self-employed NICs might be a long-term aim of any government. One option would be to remove the ceiling on class 4 contributions, to bring them more in line with employer NICs for employed earners. This would bring in additional tax revenues of just under £1 billion and would inevitably hit richer self-employed individuals the most. Table 9.2 reports the average loss for self-employed individuals in each income quintile of the total population. It also shows where the self-employed are in the overall income distribution, with the greatest representation in the top quintile (almost 30 per cent of all self-employed individuals are found here).

**Table 9.2: Impact of removing ceiling on class 4 NICs**

	<i>Average fall in disposable income (per week)</i>	<i>Percentage of all self-employed</i>
Quintile 1 (poorest)	£0.00	16%
Quintile 2	£0.15	13%
Quintile 3	£0.06	20%
Quintile 4	£0.75	22%
Quintile 5 (richest)	£15.81	29%
All	£4.72	100%

A more comprehensive reform of self-employed NICs would be to abolish class 2 and class 4 contributions, and replace them with two NI systems for the self-employed which are equivalent to those imposed on employees. To ensure consistency with the treatment of employed earners, 'employer' contributions are ignored for the purpose of assessing income tax liability. Equalising the NI treatment of the self-employed and employees would also require increased benefit entitlement for the self-employed, which would partly offset any revenue gains to the government from higher NICs.

The Treasury estimates that reforming self-employed NICs would save around £2 billion (*Tax Ready Reckoner*, August 1996). This figure takes account of the increased benefit entitlement that the self-employed would enjoy as a result of higher contributions. We have only modelled here the impact of higher NI payments; we do not attempt to estimate the effect of greater NI benefits to the self-employed as a consequence of our reform.

Inevitably, the result of this equalising reform would be substantial reductions in the post-tax income of most self-employed people. More than half of those who lose from this reform would lose more than £25 per week and one-tenth would lose more than £50. Table 9.3 reports average weekly losses for the self-employed in each income quintile of the total population. The biggest losses are experienced by those at the top end of the overall income distribution, e.g. self-employed individuals in the richest fifth of the population lose an average of £41.30 per week, whilst those in the lowest quintile lose only £1.89.

**Table 9.3: Impact of reform of self-employed NICs**

	<i>Average fall in disposable income (per week)</i>	<i>Percentage of all self-employed</i>
Quintile 1 (poorest)	£1.89	16%
Quintile 2	£7.71	13%
Quintile 3	£13.74	20%
Quintile 4	£18.94	22%
Quintile 5 (richest)	£41.30	29%
All	£20.02	100%

Note: Figures relate to *individuals*, not households.

### ***Integrating Income Tax and National Insurance Contributions***

Researchers at IFS have long highlighted the inconsistencies that exist between the two taxes on earned income in the UK, and the benefits that could result from a more integrated structure.<sup>6</sup>

The potential benefits from greater integration of income tax and NICs are numerous. For example, the fact that the NI upper earnings limit (UEL) is lower than the point at which higher-rate income tax becomes payable creates a curious dip in the earnings schedule. This is because, as gross income rises above the UEL, marginal tax rates fall (from 34 per cent to 24 per cent) until the basic-rate limit (£25,500 of taxable income) is reached. The inequity that this generates might be reason enough to consider a more integrated system. A further anomaly in the current system is the discrepancy that exists between the tax base for NICs and that for income tax, which provides an incentive for both employees and employers to adjust their financial arrangements in order to minimise their overall tax liability.

<sup>6</sup>See, for example, Davis, E. (ed.) (1992), *Tax Reform for the Fourth Term*, IFS Commentary no. 32.



Whilst there would inevitably be significant practical difficulties in the implementation of such a system, any government wishing to create a more integrated structure could find plenty of reasons to justify this course of action.

# 10 Issues in Indirect and Environmental Taxation

In this chapter, we discuss several issues in the area of indirect taxation:

- possible reforms to the VAT system, including ending the zero-rating of books and newspapers, and the effect of Labour's pledge to reduce VAT on domestic fuel;
- the effects of ending duty-free shopping within the EU;
- the regressivity of raising money through the National Lottery;
- the design of environmental taxes, including the possibility of a double dividend.

## 10.1 Value Added Tax

The current VAT system consists of a standard rate of 17.5 per cent, a reduced rate of 8 per cent on domestic fuel, and a zero rate on certain goods and services. We review briefly some arguments for and against using differential VAT rates.

Any tax system must be designed with an eye to minimising the scope for avoidance and evasion. Zero-rating necessitates a description of the goods and services to which it can be applied. The difficulty of devising precise descriptions provides scope for companies legally to avoid VAT payments by placing their goods and services in the VAT-free bracket. VAT revenues for 1995/96 are some £5 billion less than was forecast in the 1994 Financial Statement and Budget Report, and avoidance of the kind described has frequently been cited as a prime reason for this shortfall. One obvious way of limiting the scope for such avoidance would be to extend the range of goods to which VAT is applied. It is unlikely, though, that the Chancellor would consider any major reforms to the VAT system in his last Budget before an election, although we might expect to see a tightening of anti-avoidance legislation.

**Table 10.1: Estimated revenues forgone: zero-rating (£ million)**

	1995/96	1996/97
Food	7,400	7,500
Construction of new dwellings	2,150	2,200
Domestic passenger transport	1,350	1,450
International passenger transport	1,150	1,200
Books, newspapers and magazines	1,150	1,200
Children's clothing	750	800
Water and sewerage services	900	900
Drugs and prescription medicines	700	750

Source: HM Treasury's *Tax Ready Reckoner*, August 1996.

Many of the goods and services that are zero-rated are treated in this way on distributional grounds. Items such as food form a higher proportion of the spending of the poor than of the rich, and taxing them would be regressive. The problem with using indirect taxation to redistribute is that it distorts relative prices for rich and poor alike, and a progressive income tax plus transfers could probably achieve the same results more efficiently. Current estimated revenue forgone as a result of zero-rating is shown in Table 10.1.

A further reason for using differential commodity taxation is to correct for the external costs or benefits imposed on others which are associated with the consumption of certain goods. As an example of this, when VAT was introduced in 1972, books, newspapers and periodicals were zero-rated 'on the general principle of avoiding a tax on knowledge'. The externality here could be, for example, public benefits to having a literate population who can understand public notices and fill in forms, which individuals do not take into account in deciding how much to read.

However, it is unlikely that zero-rating is the best way to deal with such externalities — it applies equally to all books, newspapers and periodicals, regardless of their supposed educational content. Other commodities, for example videos and computers, which could equally be thought of as having educational value are not zero-rated. Local authority schools, large purchasers of books for educational purposes, and libraries are able to reclaim VAT on all items bought, which would include books if VAT were applied to them. Some of the VAT raised from general sales of books and newspapers, estimated to be some £1,200 million this financial year, could be given to public libraries, for example, where any educational externality is likely to be larger, per book, than from private purchases.

One standard economic principle is that, in the absence of production externalities, there should be no taxes on intermediate goods.<sup>1</sup> Although the general design of VAT is in keeping with this prescription — producers can claim back the VAT they have paid on inputs — there is a category of goods that are VAT-exempt, for which this principle is not upheld. VAT-exempt goods differ from zero-rated goods in that, whilst in both cases no VAT is charged on the final product, producers of zero-rated goods can claim back VAT paid on inputs, whilst producers of exempt goods cannot. Producers of exempt goods thus face higher input prices than other firms, which is inefficient. They will try to pass some of these higher costs on in the price of the final product, which will therefore contain an implicit tax component somewhere between zero and the standard VAT rate. The only justification for such a set-up is that it is problematic to charge VAT on the final product because the 'value added' is hard to define, for example in the financial service industry. Exemption is a way to claw back some of the tax in a roundabout way. If the intention was to charge a lower VAT rate on the good for some reason, then this should be done explicitly. Estimates of the revenues forgone from VAT-exemption are given in Table 10.2.

Whatever changes the present, or any future, Chancellor considers making to the VAT system, he will have to consider EU laws regarding VAT harmonisation between member states. These are summarised in Box 10.1. The implication of these restrictions is that the current and future Chancellors have a fairly limited scope for

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<sup>1</sup>Diamond, P. A. and Mirrlees, J. A. (1971), 'Optimal taxation and public production II: tax rules', *American Economic Review*, vol. 61, pp. 261–78.

altering VAT, particularly as regards any substantial reductions or extending the range of goods to which a reduced rate applies.

**Table 10.2 Estimated revenues forgone: VAT exemption (£ million)**

	1995/96	1996/97
Rent on domestic dwellings	2,850	3,000
Rent on commercial properties	1,300	1,300
Private education	1,000	1,050
Health services	400	450
Postal services	400	450
Burial and cremation	100	100
Finance and insurance <sup>a</sup>	50	50
Betting and gaming and lottery	650	700
Small traders	100	100

<sup>a</sup> Includes an estimate of indirect charges that financial institutions make to customers through charging higher interest rates to borrowers than they pay to lenders, which, in practice, would be extremely difficult to identify.

Source: HM Treasury's *Tax Ready Reckoner*, August 1996.

**Box 10.1: EU VAT harmonisation**

Member states must apply a normal VAT-rate of not less than 15 per cent

One or two reduced rates (not lower than 5 per cent) may be applied to a range of goods and services, including:

- Food
- Water supplies
- Pharmaceuticals and medical supplies
- Passenger transport
- Books, newspapers and periodicals
- Cultural and sporting events
- Services supplied by writers, composers and performing artists
- Supply of housing as part of social policy
- Accommodation supplied by hotels etc.
- Supplies to charities
- Services supplied by undertakers and cremation services
- Provision of health care
- Provision of street cleaning and refuse collection

Transitional measures:<sup>a</sup>

States applying reduced rates lower than 5 per cent before 1 January 1991 may continue to do so on these goods and services

States applying a reduced rate to restaurants, children's clothing and housing on 1 January 1991 may continue to do so

States that, on 1 January 1991, applied a reduced rate to goods and services not listed above may continue, subject to a 'parking rate' of not less than 12 per cent

<sup>a</sup>These continue until a unanimous decision is reached on the design of a definitive VAT system.

## 10.2 Duty Free

Duty-free shopping within the EU is due to be abolished from June 1999. In the context of a genuine single market, this would make perfect economic sense. However, in the area of excise duties, the EU is currently a long way from operating as a genuine single market, given that wide duty differentials still persist. In theory, the pressure of cross-border trade should provide an impetus towards equalisation of duties across member countries, but in practice, progress towards harmonisation has been slow.

Unless uniform rates operate throughout the EU by the time duty-free concessions are abolished — which seems unlikely — and unless ferries and aeroplanes stop selling excisable products — which also seems unlikely, given the revenue potential of such a captive audience — the question will be ‘at whose duty rates will sales of alcohol and tobacco be taxed?’. At present, the European Commission is undecided, but there seem to be two main options, neither of which is entirely satisfactory. The first is to levy the duty rates of the country from which the journey starts. This will mean no one buying anything on the ferry from Dover to Calais, but on the way back it will bring lower French duties just that bit closer to British shores. The second is to levy duty at the rate of the country from which the retailer bought the product. This would allow ferries to charge at French duty rates in either direction, but would imply that UK producers would have to export goods to France first so that UK ferry companies could purchase at the lower duty rates.

## 10.3 Gambling Taxes and the National Lottery

The National Lottery was introduced in November 1994. In its first 13 months of operation, total sales were £5.1 billion (three-quarters from the sale of weekly Lottery tickets). For the government, this meant £530 million in tax revenue in the first year — more than was collected from either general betting duty (£509 million in 1994/95) or pools betting duty (£342 million), and a further £1.4 billion for good causes.<sup>2</sup>

Before the introduction of the National Lottery, there was some concern expressed that the Lottery would cause a redistribution of money from poor to rich. In November 1994, the *Economist* commented that the Lottery would ‘gather money from the poor to spend on amusements for the wealthy’. To see how the burden of this tax revenue from the National Lottery was distributed across the population, we look at household-level evidence on the first six months of the Lottery’s operation.<sup>3</sup> On average, more than two-thirds of households played the Lottery at least once every two weeks, but these rates vary significantly by income, as Figure 10.1 shows. The income figures are adjusted to take account of household size. Poorer

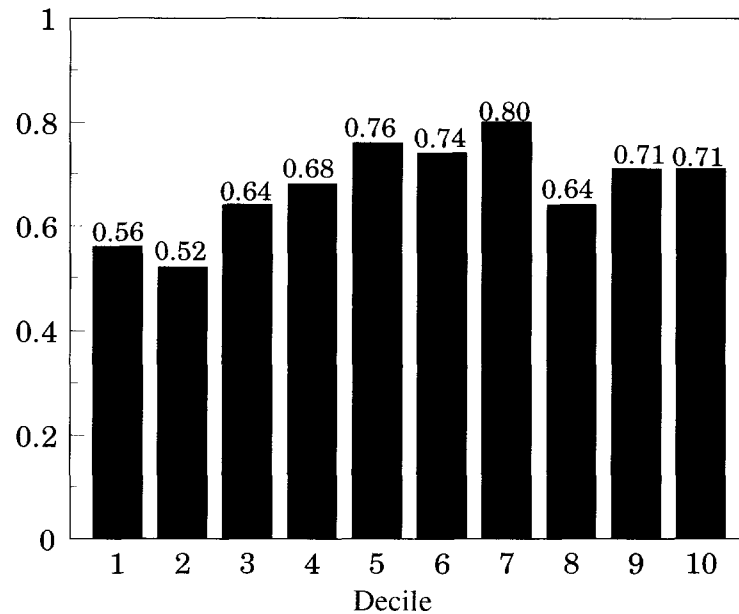
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<sup>2</sup>See FitzHerbert, L. (1995), *Winners and Losers — The Impact of the National Lottery*, report for the Joseph Rowntree Foundation.

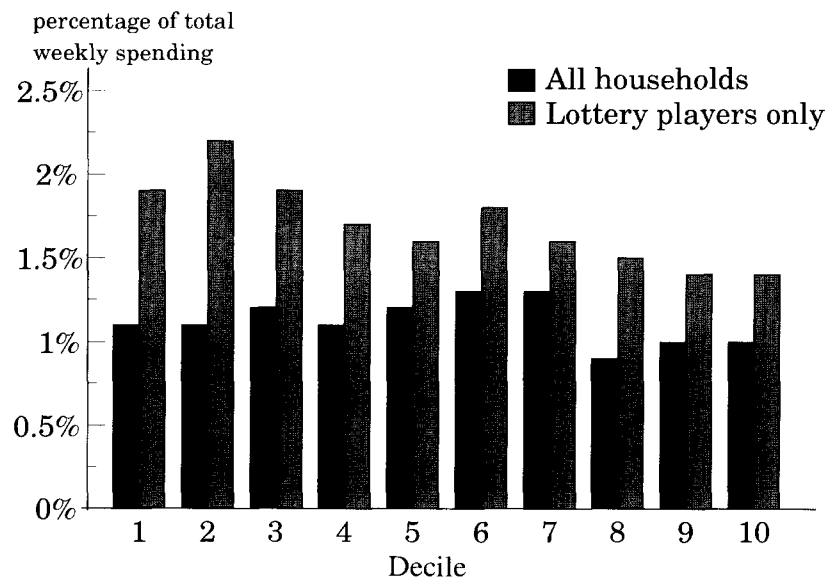
<sup>3</sup>This information comes from the Family Expenditure Survey. There is some evidence that the FES fails to capture all spending on the National Lottery. However, as long as the under-recording does not vary systematically with income, our results are unaffected.

households in the bottom 20 per cent of the income distribution are less likely to play the Lottery than households with average (median) incomes. Much of this difference has to do with the fact that pensioners constitute a large part of the bottom income group and those aged 65 and over have lower participation rates than younger households — just over half compared with nearly three-quarters of households younger than 65.

**Figure 10.1: Proportion of households playing the National Lottery, by income decile**



**Figure 10.2: Average expenditure share on National Lottery, by income decile**



To assess whether the National Lottery is a regressive or progressive way to raise money, we look in Figure 10.2 at the share of households' total weekly expenditure that goes on the Lottery. In fact, if we look at the average share of total weekly spending on the Lottery across all households in each income group, the burden of the Lottery appears to be distributed fairly equally between income groups. The poorest 20 per cent of households do spend slightly more of their total spending on the National Lottery than the richest 20 per cent, but no more than the mean share across all households. However, if we look only at the households that play the Lottery, it looks far more regressive. Those in the bottom 20 per cent of the income distribution who play the Lottery spend a higher proportion of their total expenditure on the Lottery than those in any other income group — just over 2 per cent compared with a mean share of 1.7 per cent.

At present, therefore, there is little real cause for concern that money from the National Lottery is being raised disproportionately from poorer households. The burden of the Lottery is borne fairly uniformly across all income groups, although this conclusion must be qualified by the fact that poorer households who do play the Lottery spend a larger share of their total expenditure on the Lottery. However, the overall redistributive effect will depend not only on where the money comes from, but also who benefits from the money handed out by the five grant-giving bodies, and here great care must be taken to ensure distributional issues are addressed.

### ***Spread Betting***

Another area of gambling that is growing rapidly is spread betting. The principle behind spread betting is quite different from fixed-odds betting. The bookmakers quote a spread reflecting the likely outcome of a particular contest or competition, such as the number of goals scored in a football match. You bet against their prediction by betting a specified amount (the stake) for every 'tick' (in this case, number of goals) above the upper bound of the spread or below the lower bound of the spread. Spread bets can be placed on virtually any commodity, the most common being movements in financial markets and outcomes of sporting events.

#### **Box 10.2: An example of a spread bet**

A simple example of a spread bet on the future movement of the FTSE 100 will help illustrate the principles involved.

It is October and the FTSE 100 index is currently standing at 3900. You think that by the end of the year it is going to rise and want to place a spread bet. Assume that the current quoted spread for the FTSE 100 index at the end of December is 4050–4060. If you believe that by the end of the year the FTSE index is going to rise above the higher figure quoted (4060) you open an Up Bet. You decide how much you want to stake — say £10 for every 10 points above 4060 — and wait and see.

But you may not need to wait until the end of December to make any money. Unlike a regular fixed-odds bet, a spread bet is a tradable commodity which can be sold back to the spread-betting company at any point in time, at the lower price quoted in the spread. Assume that the FTSE index rises rapidly in October and by the beginning of November the spread-betting company has revised its quoted spread upwards to 4160–4170. You could wait until the end of December in the expectation of further rises or you could sell now and make a guaranteed profit of £100.

Under the Betting and Gaming Duties Act, betting duty is currently payable by the bookmaker on the amount of money staked. In the case of a fixed-odds bet, the stake is clearly defined since money changes hands when the bet is placed. With spread betting, however, no money changes hands when the bet is opened and this makes the tax base more difficult to assess. In a spread bet, the stake is defined as the amount bet per 'tick' either side of the spread (£10 in the FTSE example in Box 10.2) and it is this that betting duty is levied on. However, the stake in a spread bet is purely a notional one and could, in theory, be defined in a number of different ways without affecting the underlying bet. The simple, tax-avoiding course of action is to reduce the size of the stake by changing the size of the units you bet in. In the example above, this would mean betting £1 for every point instead of £10 for every 10 points. It would not affect the size of your winnings, but the tax liability would clearly be reduced.

So how might spread betting be taxed more effectively? One possibility is to take away the option of paying duty on the stake and tax the winnings at the normal rate of betting duty. But what about going one stage further and subjecting the winnings from spread betting to capital gains tax (CGT)? It is not clear that a fixed-odds bet is the closest substitute to a spread bet. Financial and commodities future contracts appear to be fundamentally much more similar in operation, and indeed spread-betting companies are currently regulated by the Securities and Futures Authority. A financial spread bet is certainly marketed not as an alternative to betting on a horse race but as a capital-gains- tax- and income-tax-free way of speculating on market movements.

The CGT liability would be fairly simple to assess. A spread bet has an implicit price at the beginning (its expected value is zero)<sup>4</sup> and by the end there is a realised capital gain or loss — £100 in our example above. Comparing the effect of CGT with a betting duty on the winnings, small-time gamblers would gain. CGT is only levied on gains above the annual exemption limits — currently £6,300 for individuals — and, of course, any losses arising from spread bets could be used to offset tax liability. On the other hand, for those whose winnings did exceed the annual exemption limits, CGT is charged at the individual's marginal income tax rate.

## **10.4 Environmental Taxes**

Environmental taxes are a tool for correcting certain consumption and production externalities. When producers and consumers engage in activities that result in environmental pollution, they may ignore the costs this imposes on society (global warming, poor air quality and so on). Ideally, pollution should be reduced to the point where the cost of a further unit reduction is equal to the environmental benefit gained. Naturally, assessing where this point occurs is a difficult task for any government, particularly in estimating the benefits of pollution reduction — for example, the potential costs of global warming are highly uncertain. Whereas, in general, taxing intermediate goods is undesirable, the existence of production externalities provides a justification for doing so.

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<sup>4</sup>Although it could be argued that, since the spread-betting company makes a profit, the expected value is actually less than zero.



In theory, a super-knowledgeable government could achieve a given amount of pollution reduction either by setting an appropriate tax or by regulatory means, for example emissions standards. Since this happy state of affairs is unlikely, taxes may have several features to recommend them over emissions standards. Taxes can achieve a given amount of pollution reduction more cost-effectively than can uniform standards, since they encourage more abatement where the costs of abatement are lowest. Also, since every unit of pollution is charged for, taxes provide an incentive to invest in research into lower-cost methods of pollution reduction, thus resulting in further abatement, whereas standards merely encourage minimum compliance. However, one of the most interesting advantages that environmental taxation can deliver, it has been suggested, is that of a *double dividend*, which we discuss in more detail below.

### ***Environmental Taxation and the Possibility of a Double Dividend***

Environmental taxes are a corrective tax — far from trying to devise a revenue-collecting system that causes least distortion to consumer and producer decisions, they actually try to correct for market inefficiencies, to alter relative prices and induce changes in behaviour. People derive utility from consuming goods and leisure, and from the quality of the environment. The first dividend from environmental taxation is that taxing ‘dirty’ goods improves overall welfare because the benefits from the revenue collected and the improved state of the environment outweigh the loss to consumers from price increases.

This assumes that the revenue is redistributed in lump-sum form, and therefore has entirely neutral efficiency impacts. The possibility of a second dividend arises from using the environmental tax revenue to enable an existing distortionary tax to be lowered. It is not disputed that using the revenue from environmental taxation to lower an existing distortionary tax leads to an improvement in welfare over redistributing it in lump-sum form. The much stronger claim for a double dividend is that swapping the environmental tax for an existing distortionary tax results in a more efficient tax system, and so the non-environmental aspect of welfare is improved *as well as* there being an improvement in the environment.<sup>5</sup>

In theory, there should be limited scope for the strong form of double dividend — as far as the non-environmental aspect of welfare is concerned, there is no reason to expect that replacing one distortionary tax with an environmental tax, which will also distort consumer or producer choices,<sup>6</sup> would lead to a more efficient tax system. One suggestion is that, by shifting taxes from ‘labour’ to ‘pollution’, we can achieve an employment double dividend. It may be that in economies where unemployment is high because real wages are ‘too high’ in some sense, one way of cutting employer labour costs is to shift from ‘taxing labour’ to ‘taxing consumption’ and hoping that real wages do not adjust quickly. But any lasting gain would depend on maintaining lower real wages, which relies on a changed labour market.

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<sup>5</sup>For a technical discussion, see Goulder, L. H. (1995), ‘Environmental taxation and the double dividend: a reader’s guide’, *International Tax and Public Finance*, vol. 2, pp. 157–83.

<sup>6</sup>Although the aim of an environmental tax is to alter behaviour, when environmental gains are ignored, such taxation is distortionary.

In any case, if the efficiency of the tax system could be improved by shifting from more to less distorting taxes, policymakers should have made this change regardless of the introduction of new environmental taxation. But in reality, existing tax structures are unlikely to be perfect, so environmental taxation might be a politically acceptable way of implementing reforms. Shifts in the burden of taxation away from labour and towards environmental taxes are part of policy in the Nordic countries, as summarised in Table 10.3.

**Table 10.3: 'Eco-taxes' and the Nordic countries**

<i>Country</i>	<i>Environmental taxes</i>	<i>Tax reductions</i>
Denmark	Carbon tax, sulphur tax and landfill tax	Income tax and employer social security contributions
Sweden	Carbon tax, sulphur tax and nitrogen oxide emissions tax	Income tax
Norway	Carbon tax and sulphur tax	Income tax and company taxation

Britain has been much slower to introduce environmental taxes, despite the government's commitment in its 1990 White Paper, *This Common Inheritance*, to using fiscal tools to pursue environmental objectives. The first genuine environmental tax to be used in the UK — the landfill tax<sup>7</sup> — was not introduced until October of this year. Revenue collected is being used to allow a decrease in employer National Insurance contributions.

Even if the scope for a double dividend is limited, this does not, of course, mean that environmental taxes should not be used, since they still yield the 'single' dividend of an overall welfare gain.

### ***Energy Taxation***

Energy use is associated with a number of pollutants — carbon dioxide and other gases that cause global warming, acid rain from sulphur dioxide and nitrogen oxides, and particulate emissions contributing to poor air quality. Ideal, or 'Pigouvian', taxes would be charged on the damage caused by measured emissions, which could well vary according to time, location and existing concentrations of pollutants. As emission measurement technology is often expensive or not available, and a varying tax costly in design and administration, a tax on fuel itself is often seen as the next-best solution. In fact, a fuel tax is only a good proxy when the amount of pollutant emitted is closely linked with the quantity of fuel used. For example, sulphur dioxide or nitrogen oxides can be removed from combustion emissions via end-of-pipe technologies. Therefore, a fuel tax, which would be paid whether or not the firm invested in pollution abatement technology, is inappropriate and simply discourages fuel use, which is not the most efficient way of reducing these particular emissions.

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<sup>7</sup>The initial rates are £7 per tonne on active waste and £2 per tonne on inert wastes. Although this is low compared with, say, Denmark's rate of the equivalent of £33 per tonne on all waste, there is unlikely to be any revision to the charges in this year's Budget, as the tax will only just have come into force.

One pollutant where damage *is* closely linked to fuel use is carbon dioxide. No effective technology currently exists for removing carbon dioxide from combustion emissions, and the impact on global warming of a given amount of carbon dioxide is the same wherever it is emitted. An ideal environmental tax would, then, seem to be the much debated carbon tax — since carbon dioxide emissions are directly related to the carbon content of a given fuel, a tax could be imposed that varies across fuels according to their carbon content.

### **A Carbon Tax**

The European Commission first proposed the introduction of a Community-wide carbon/energy tax as far back as September 1991. This government has always been opposed to adopting such a measure on the principle of fiscal subsidiarity. The two energy-related taxes it has employed instead, with a view to reducing carbon dioxide emissions, are VAT on domestic fuel (currently at a rate of 8 per cent) and a commitment to increase real duties on motor fuel. These measures offer no attempt to make industry, which is responsible for over a quarter of carbon dioxide emissions,<sup>8</sup> face the social cost of using carbon-intensive energy.

Applying a VAT rate of 8 per cent to all domestic fuel fails to distinguish between the differing carbon dioxide emissions per energy unit associated with oil, gas, coal and electricity. For electricity, this measure depends on the primary fuel used in its generation, and it will always be more efficient to apply a carbon-related tax to the inputs to electricity generation, since an end tax based on average carbon emissions gives no incentive to individual power-stations to switch to less carbon-intensive methods of generation. Table 10.4 shows the tax on carbon dioxide implied by the 8 per cent VAT charge on domestic fuel when it was introduced on 1 April 1994. The third column shows the VAT component of the unit price for each fuel. The carbon content of the fuel can be used to calculate the carbon dioxide emissions arising per unit of fuel used,<sup>9</sup> which is given in the fourth column. Dividing the per unit VAT charge by the emissions per unit gives the implied tax on carbon dioxide emissions, shown in the final column.

**Table 10.4: The varying CO<sub>2</sub> tax implied by VAT on domestic fuels**

<i>Fuel</i>	<i>Unit</i>	<i>VAT component at 8% (£ per unit)</i>	<i>CO<sub>2</sub> emissions (tonnes per unit)</i>	<i>Implied CO<sub>2</sub> tax (£ per tonne)</i>
Oil	1,000 l	10.04	2.69	3.73
Electricity	10 <sup>3</sup> KW h	6.04	0.65	9.29
Gas	10 <sup>7</sup> Kcal GCV	15.86	2.26	7.02
Coal	tonne	9.19	2.42	3.80

Source: EUROSTAT *Yearly Energy Statistics* and IEA *Energy Prices and Taxes*.

<sup>8</sup>Current figures show that power-stations are responsible for 31 per cent of carbon dioxide emissions, and that, by end user, 28 per cent of emissions come from the domestic sector, 28 per cent from industry and 22 per cent from road transport.

<sup>9</sup>For electricity, this measure is based on the proportion of primary fuel types used in generation in the UK.

Whilst it is true that the UK is one of few countries that look set to meet the Rio commitment to reduce carbon dioxide emissions to 1990 levels by the year 2000, this may largely be through changes other than policy measures adopted. The recession in the early 1990s curbed the rate of growth of energy demand, and there was a 'dash for gas' in electricity generation as a result of privatisation and the lifting of an EU directive prohibiting the use of gas in electricity generation. Gas generation is technically more efficient than coal-fired generation, and gas produces less carbon dioxide per energy unit than coal. If, as John Gummer suggested at a climate conference in Geneva in July this year, the UK would like to see greenhouse gases reduced even further, any government is likely to have to adopt further measures regarding energy use, particularly as the planned introduction of competition into energy markets may result in a fall in prices.

The idea of a carbon tax is not popular with industry, the main concern being the effect it would have on international competitiveness. The adoption of a Community-wide policy would go some way to limit this effect, and, in the long run, average effects on competitiveness would be reversed through changes in the exchange rate, or domestic wages or prices, since infinite disequilibrium in the balance of payments would not be sustainable. However, it is true that a carbon tax would disadvantage energy-intensive industries compared with sectors that are less energy-intensive. A carbon tax would raise substantial amounts of revenue, and the possibility of using this to ease the tax burden on industry elsewhere is frequently discussed, for example lowering employer National Insurance contributions or corporate taxation. Again, depending on the measure adopted, this would affect different sectors in different ways according to whether they are relatively labour- or capital-intensive.

The Commission's proposals actually included various measures to limit the effect of a carbon tax on industry, including exemptions for energy-intensive industries with a large involvement in international trade. Countries that have unilaterally introduced a carbon tax also tend to use such measures — for example, Sweden requires manufacturing industry to pay only a quarter of the carbon tax levied on other users. Whilst this might make such an instrument more palatable in the short term, it does rather defeat the purpose of the tax. Any serious attempt to reduce carbon dioxide emissions requires a reduction in the use of carbon-based energy by industry.

The second negative feature of a carbon tax is its regressive nature, which is mainly due to its effect on the price of domestic energy. Spending on domestic energy accounts for a considerable share of spending by poorer households and rises little with increasing income. However, this can hardly be an objection of the present government since it was prepared to adopt the measure of introducing VAT on domestic fuel. Of course, it would be possible to redistribute some of the revenue raised by a carbon tax in order to counter its regressive effects — the imposition of VAT on domestic fuel was accompanied by various compensatory measures including an increase in the basic pension. Despite the scope for compensation, the regressive nature of a tax on domestic fuel lies behind Labour's objection to VAT on domestic fuel, and its commitment to reduce it to 5 per cent, the distributional impacts of which are reviewed in Table 10.5.

**Table 10.5: Reducing the VAT rate on fuel from 8 per cent to 5 per cent: who would gain?**

	<i>Average size of gain (per week)</i>	<i>Average size of gain as a share of total expenditure</i>
Income decile 1 — £61 per week	£0.25	0.44%
Income decile 2 — £97 per week	£0.29	0.38%
Income decile 3 — £136 per week	£0.31	0.31%
Income decile 4 — £181 per week	£0.32	0.24%
Income decile 5 — £230 per week	£0.35	0.22%
Income decile 6 — £281 per week	£0.36	0.20%
Income decile 7 — £342 per week	£0.38	0.18%
Income decile 8 — £411 per week	£0.41	0.18%
Income decile 9 — £515 per week	£0.41	0.14%
Income decile 10 — £827 per week	£0.52	0.13%
Age 20–34	£0.32	0.21%
Age 35–49	£0.41	0.20%
Age 50–64	£0.40	0.22%
Age 65+	£0.31	0.33%
Average	£0.36	0.24%

Note: This shows first-round effects only; losses if benefits were indexed are not included.  
Source: Family Expenditure Survey, 1994/95.

As can be seen, the overall effect is progressive, with the highest gain as a share of expenditure accruing to those over 65, a group of particular concern.

In the past, the Labour Party has claimed that not only is such a tax inequitable but, since the demand response to price changes is estimated to be low, it is also ineffective in reducing carbon dioxide emissions. In itself, this is not a watertight argument, since the tax should be set at the level that elicits the desired amount of emissions reductions. The demand curve represents the marginal cost to society of reducing carbon dioxide emissions in terms of the increased energy costs. An inelastic demand curve simply means that this cost increases more sharply than for a more elastic demand, and so the desired level of emissions reductions is lower than for elastic demand. What could be true, though, is that industrial demand is more price elastic, and so a given tax would elicit a greater response from industry than from domestic users. In addition, lack of awareness of the possibilities, or capital constraints, may prevent homeowners from undertaking cost-effective energy-efficiency improvements (such as roof insulation and fitting double glazing), resulting in a lower-than-optimal response to increased energy prices.

# 11 A National Minimum Wage

Since the 1980s, there has been increased interest among unions and the Labour Party about the possibility of introducing a national minimum wage. The central argument for a minimum wage is a social justice one, that a minimum wage is necessary to prevent some employers paying staff less than the value of what they produce. It is also claimed that this would stem the growth in the gap between rich and poor and the rise in the numbers of the working poor, and protect individual rights in the workplace. Some labour economists have also claimed that the recent growth in earnings inequality has not been entirely driven by falls in the relative productivity of low-paid workers. Instead, the balance of power in some of the new sectors of employment is such that there may have been an increase in the numbers of workers who are paid less than the value of the goods and services they produce. This problem might be especially acute for workers covered by social security in-work benefits, whose employers may reduce their wages in response to the increased generosity of these benefits.<sup>1</sup>

The traditional economist's case against any wage floor is that at best it can have no effect on wages and at worst it will be counterproductive. While the workers who remain in employment will be better off than before, the fall in incomes of those who lose their jobs will leave the group of workers affected much worse off. Underlying this argument is the assumption that labour markets are structured so that all workers are paid the value of what they produce. Employers that pay less than the going rate will lose all their employees. Similarly, any industry that persists in paying workers less than the value of what they produce will face competition from new firms wishing to gain a share of these extra profits. It is these competitive pressures that force wages up to what economists term the 'market clearing level', the level at which all workers are paid the value of what they produce. Any enforced increase in wages can thus only result in firms attempting to increase productivity by reducing their work-force. Moreover, the increased cost of production may also raise prices and result in a fall in the level of real consumer demand.

But if the competitive pressures described above are weak, it may be the case that wages will be lower than the value of goods and services produced by workers. For example, women with children may find their need to work near a child-minder or school a large barrier to moving to a better job. Their employers will then be able to get the sorts of workers they need at very low wages — wages that are in fact lower than their marginal product. Similarly, workers in industries with many small firms may not know the wages offered by other similar firms and are exploited by this lack of knowledge. This argument strengthens the case for a minimum wage by explaining why wages may be 'too low'. It also implies that a wage floor may be able to raise wages *without* affecting employment, so long as it is set so that wages are still no

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<sup>1</sup>This fear that subsidies to low-wage workers benefit their employers rather than the workers themselves is not new. Critics of the 'Speenhamland System' of a subsidy directly tied to the difference between the price of bread and the wages of agricultural workers in the early nineteenth century made exactly this point, arguing that the system allowed farmers to reduce wages and left the workers no better off than before.

more than the value of goods and services produced. Box 11.1 shows this point diagrammatically. Recent research in the UK lends support to this argument.<sup>2</sup> It suggests the wages set by the wages councils 'bit' in the sense that they forced some firms to pay higher wages than they otherwise would. But after the abolition of the wages councils, wages fell in the industries covered without a corresponding rise in employment. This implies that a minimum wage set at the right level might not adversely affect employment.<sup>3</sup>

**Box 11.1: Minimum wages and the labour market**

The employers in market 1 face an *upward-sloping supply curve*. This means that if they reduce wages, they will still retain some of their work-force. Similarly, in order to expand and attract extra workers, they have to increase the wage offered to all their employees. The marginal cost of increasing the work-force is therefore greater than the wage. In order to maximise profits, they will employ workers up to the point where the marginal cost of increasing the work-force is equal to the extra revenue generated from employing an additional worker. This point is given by the point at which the demand curve meets the marginal cost curve. So in market 1, employers would be prepared to pay  $W_{MAX}$  and hire  $N$  workers. But, because of the structure of the labour market, they can get  $N$  workers for  $W_{MIN}$ . A minimum wage set between  $W_{MIN}$  and  $W_{MAX}$  would therefore raise wages and not reduce employment.

On the other hand, employers in Market 2 face a *horizontal supply curve*. Here any increase in wages will result in all the workers in the market queuing outside their door, and any decrease in wages will result in mass quitting. They can also hire as many workers as they want at the market wage. The marginal cost of an extra worker is given by the wage, and as they will hire workers up to the point at which the demand curve meets the marginal cost curve, employment will be  $N_2$ . In this market, the imposition of a minimum wage above the market wage will always reduce employment as the employer is prepared to pay no more than they are already paying for the work-force.

<sup>2</sup>See, for example, Dickens, R. and Manning, A. (1995), 'After wages councils', *New Economy*, vol. 2, no. 4. Similar findings have been obtained from US research — see Card, D. and Krueger, A. (1995), *Myth and Measurement: The New Economics of the Minimum Wage*, Princeton University Press.

<sup>3</sup>It may also be the case that wages councils, consisting of employer, worker and independent representatives, operating separately in each industry will be more likely to be able to find the range of wages for which a wage floor will have the desired effect than a centrally-imposed minimum.

## 11.1 The Level of a Minimum Wage

*Half median earnings* is the preferred formula among some trade unions and the Low Pay Unit for determining the level of a minimum wage. Table 11.1, however, shows that, depending on the sample used, this formula can give very many different wages. The lowest wage shown is £3.02 an hour, which is half overall median hourly wages of all adult workers from the Family Expenditure Survey. Constructing the same measure using the New Earnings Survey (which undersamples part-time and lower-paid workers) gives a figure of £3.54. Similarly, half male median earnings gives a figure of £3.67 from the FES and £3.80 from the NES. The headline figure of £4.26 is constructed by taking half male median full-time weekly earnings (including overtime) and dividing by average hours excluding overtime. Half male average (mean) earnings would give a figure of £4.55 an hour. As no party has committed itself to a precise level of a minimum wage, and the preferred formula can be used to justify any minimum between £3 and £4.50 an hour, the following analysis will concentrate on four wages between these ranges.

**Table 11.1: Alternative methods of calculating a minimum wage related to average earnings**

<i>Wage</i>	<i>Formula</i>	<i>Sampling</i>	<i>Data source</i>
£3.02	Half median hourly wage	All workers between 18 and 60 exclusive	Family Expenditure Survey (January 1996 prices)
£3.54	Half median hourly wage	All full-time workers on adult rates	New Earnings Survey (April 1995 prices)
£3.67	Half male median hourly wage	All male workers between 18 and 60 exclusive	Family Expenditure Survey (January 1996 prices)
£3.80	Half male median hourly wage	All full-time males on adult rates	New Earnings Survey (April 1995 prices)
£4.26 =(£323/38)/2	Half male median weekly earnings including overtime divided by average basic hours excluding overtime	All full-time males on adult rates	New Earnings Survey (April 1995 prices)
£4.55	Half male average (mean) hourly earnings	All full-time males on adult rates	New Earnings Survey (April 1995 prices)

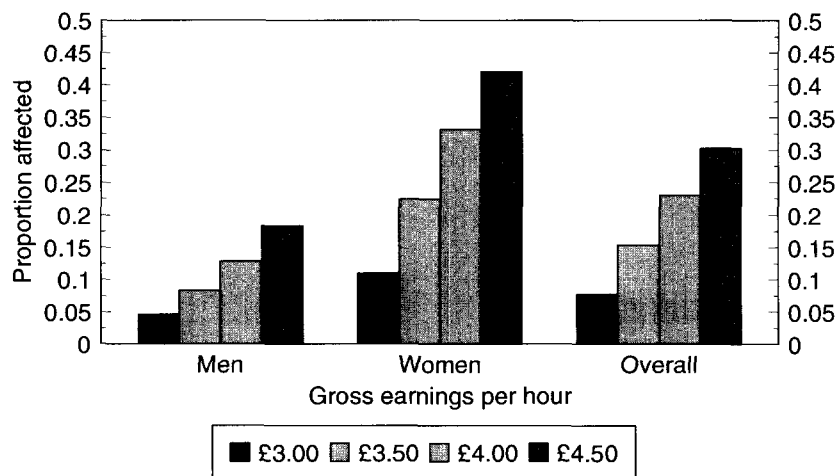
Source: New Earnings Survey published tables, and authors' own calculation from the Family Expenditure Survey.



## 11.2 How Many People Would Be Affected by a Minimum Wage?

Figure 11.1 uses data from the 1994/95 Family Expenditure Survey to estimate the proportion of workers who would gain from the introduction of a minimum wage at four possible levels — £3, £3.50, £4 and £4.50. As could be expected, many more women than men would be covered by these wages, so much so that over 40 per cent of women would be affected by a minimum wage of £4.50, compared with 20 per cent of men. Even a minimum wage set at £3 would affect nearly 8 per cent of the female work-force.

Figure 11.1: Numbers of low-paid in the UK



Source: Family Expenditure Survey 1994/95 with wages uprated to January 1996 prices.

The data from the FES show the proportion of workers covered at any one time, but if people move into and out of low-paid jobs, either from higher-paid jobs or from unemployment, the numbers affected will be much larger. Data from successive waves of the British Household Panel Survey can be used to demonstrate this point. In the following stages of the analysis, the numbers receiving less than half male median earnings (about £3.65 an hour) have been used.<sup>4</sup>

Figure 11.2 shows the proportion of the BHPS sample between the ages of 22 and 59 who have wages below half the male median. The right-hand columns show the proportion of workers affected, and is consistent with the FES results shown in Figure 11.1. The left-hand columns show the proportion of all 22- to 59-year-olds affected by a minimum wage at any point, whether in work or not.

Figure 11.3 uses the BHPS to calculate the proportion of all 22- to 59-year-olds who would have been affected by a minimum wage at some point between 1991 and 1994.

<sup>4</sup>As many people between the ages of 18 and 22 are in full-time education, the sample has been reduced to cover only those who were between 22 and 59 (inclusive) between 1991 and 1994 (the years covered by the BHPS).

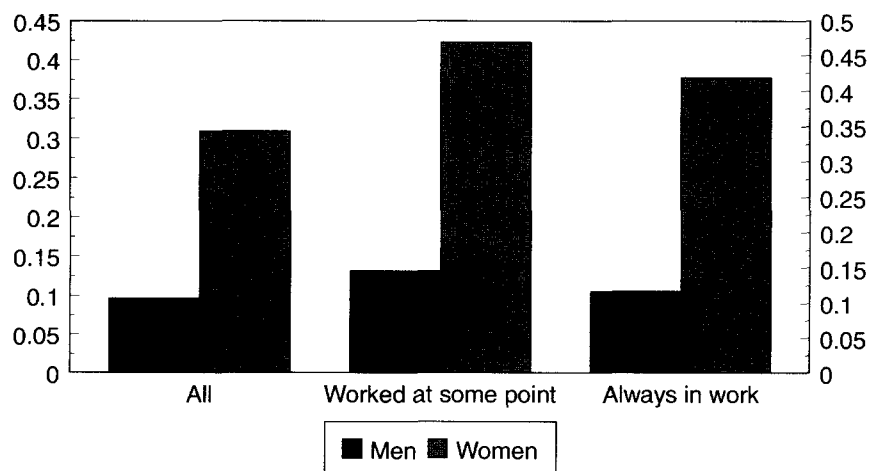
This can be compared with the left-hand columns of Figure 11.2. Taking the working-age population as a whole first, it emerges that the total number of people affected by a minimum wage over the period 1991–94 is almost twice the number affected at any one point. If the sample is further split into those who worked at some point over the period and those who were in continuous employment, we see fewer people who were always in work affected by the minimum wage. This suggests that there are movements between low-paid jobs and unemployment as well as moves up the earnings ladder from low pay into high-paid jobs. This churning between low pay and unemployment suggests that the effect of a minimum wage may be more redistributive in terms of lifetime income than in terms of income at any point in time.

**Figure 11.2: Proportion paid less than half current male median earnings**



Source: Pooled British Household Panel Survey, 1991–94.

**Figure 11.3: Proportion of 22- to 59-year-olds who ever worked in a job paying less than half current male median earnings between 1991 and 1994**



Source: Pooled British Household Panel Survey, 1991–94.

An important issue surrounding the minimum wage is how changes in the level should be made. As average wages grow, a minimum wage set in real terms will

cover fewer and fewer people over time if all wages grow with the average, and imply that those on minimum wages will not share in increases in overall living standards. On the other hand, a minimum wage tied to median or average earnings will affect more and more people if the underlying distribution of wages is getting wider. As we do not know what is going to happen to the level and distribution of wages in the future, the possible importance of this cannot be quantified. However, Figures 11.4 and 11.5 show what would have happened to the coverage of two hypothetical minimum wages set in 1975 over the 1970s, 1980s and 1990s. The first is an index-linked minimum of £3 an hour in 1996 prices and the second an earnings-related minimum of half male median wages.

Considering men first, in Figure 11.4, we can see that a minimum wage tied to prices (the solid line) would have affected about 2 per cent of male workers in 1975; this figure rose to about 4 per cent during the 1975–77 period (when most wages fell in real terms due to the Social Contract) and remained at this level over the rest of the period. This is because male wages at the bottom of the distribution have not risen in real terms since 1978. A minimum wage tied to median earnings, on the other hand, would have affected only 2 per cent of working men in 1975 but 8 per cent in 1994.

**Figure 11.4.: Proportion of male workers affected by minimum wages on different bases**

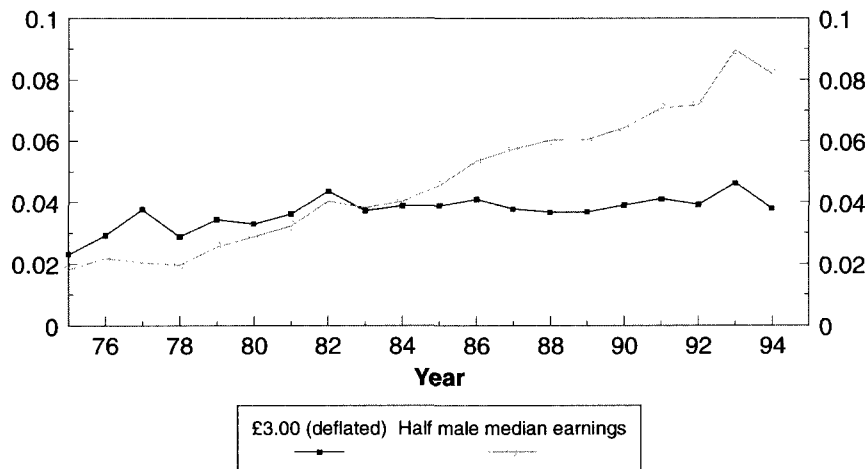
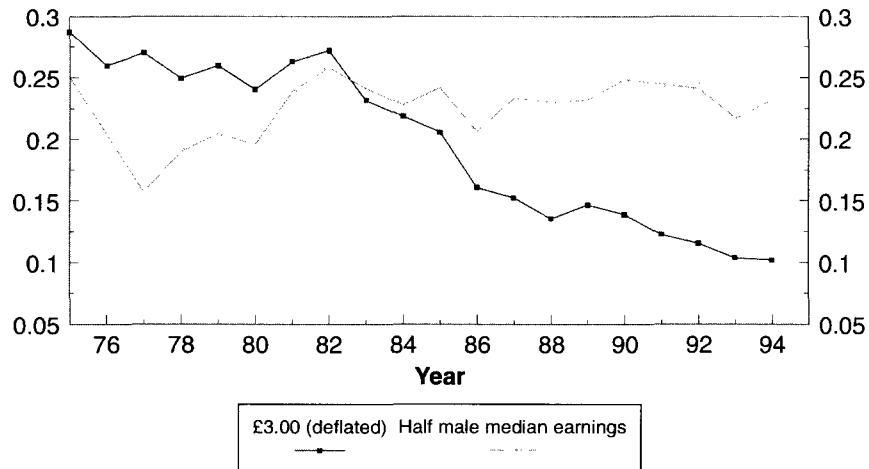


Figure 11.5: Proportion of female workers affected by minimum wages on different bases

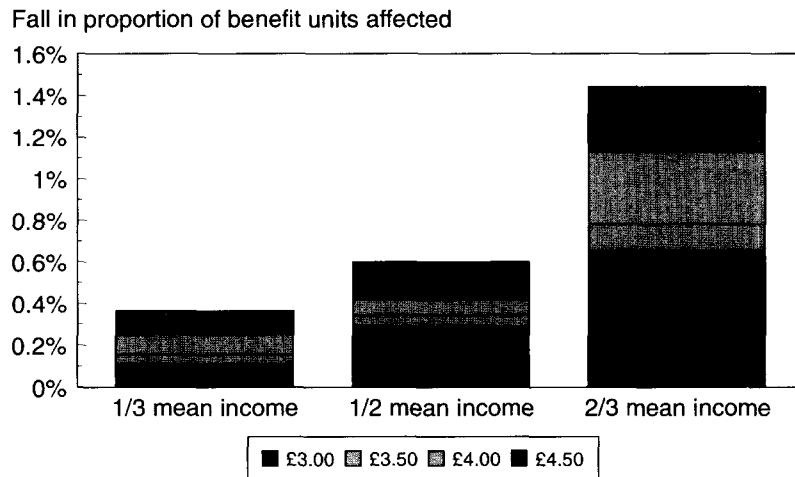


The picture for women shown in Figure 11.5 is slightly different, as female relative wages have been rising fast over the 1970s and 1980s. A minimum wage tied to male median earnings would have covered about a quarter of women workers in 1975; this decreases slightly over the Social Contract period as this covered the period soon after the introduction of the Equal Pay Act. The number affected would have risen in the late 1970s but remained at about 25 per cent of the female work-force over the 1980s. This is because female wages at the bottom of the distribution have risen as fast as male median earnings. The numbers affected by a minimum wage tied to prices would have fallen sharply over the whole of the 1980s.

### 11.3 Would a Minimum Wage Reduce Income Inequality?

Although any complete understanding of the effect of minimum wages on the distribution of income needs to incorporate the possible effects on prices and unemployment, it is still informative to look at the direct effects of a minimum wage. This will indicate the degree to which those on very low wages are in the poorest sections of society. In order to incorporate any effect of changes in tax liability and benefit entitlement, the IFS tax and benefit model TAXBEN has been used to simulate the effect of a minimum wage on net disposable incomes.

Figure 11.6: The possible effect of minimum wages on poverty



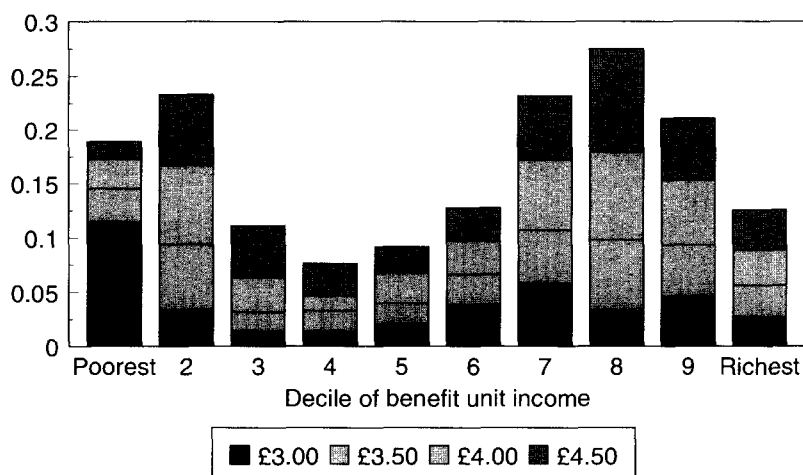
Source: Family Expenditure Survey 1994/95.

Figure 11.6 shows by how much the numbers of benefit units<sup>5</sup> with less than a third, a half and two-thirds mean income would fall after the introduction of a minimum wage. As can be seen, a minimum wage set at these levels would have very little effect on overall poverty levels. Even a minimum wage of £4.50 an hour, which would affect 30 per cent of the work-force, would only reduce the proportion of benefit units with less than two-thirds mean income by 1.4 percentage points. This suggests that the low-paid were only a very small proportion of the poor in the UK in 1994.

Figure 11.7 considers the proportion of benefit units in each income decile that would potentially gain from the introduction of a minimum wage. It shows that a very low minimum wage of £3 an hour will predominantly benefit poorer benefit units the most. However, *increases* in the minimum above £3 an hour would help benefit units further up the income distribution more than poor benefit units.

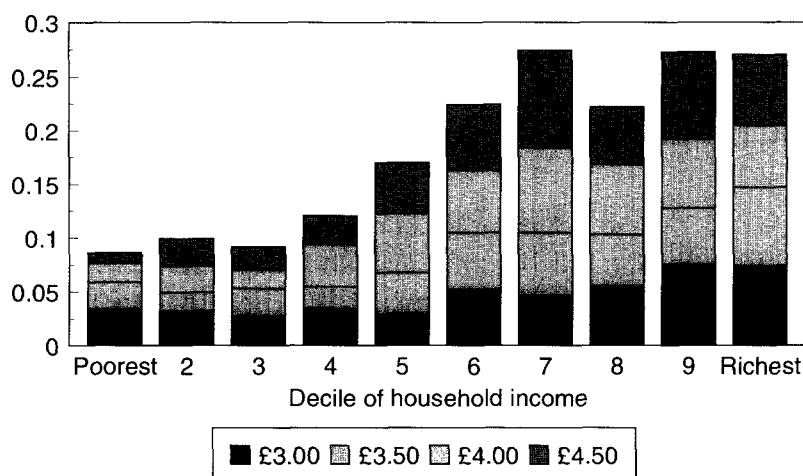
<sup>5</sup>We use the term benefit units here to denote couples or single individuals and any dependent children (i.e. children under 16 and those between 16 and 18 in full-time education).

**Figure 11.7: Proportion of benefit units with increased incomes after the introduction of a minimum wage**



Source: Family Expenditure Survey 1994/95.

**Figure 11.8: Proportion of households with increased incomes after the introduction of a minimum wage**



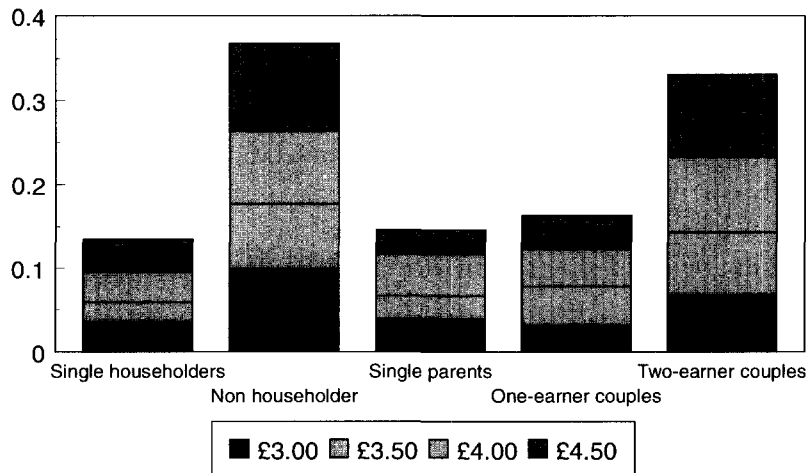
Source: Family Expenditure Survey 1994/95.

Many households are made up of two or more benefit units living together — grown-up children living with their parents or couples looking after elderly relatives — and it may be the case that these sorts of households share their resources. Figure 11.8 looks next at the distributive effects of a minimum wage on household income, which allows for such sharing across households. It shows that a minimum wage of even £3 an hour benefits those households in the top of the distribution more than those at the bottom.

Figure 11.9 suggests why this might be the case. The FES sample here has been split up not by decile of income but by type of family. This suggests that the people who are most likely to be on low wages are single non-householders. These are predominantly non-dependent children still living with their parents. Of this group, it is those in poor households (with less than median income) who are on low wages, which explains the small numbers who gain in the bottom half of the distribution of

household income. In terms of numbers, however, the most important gainers are two-earner couples. In most cases, only the secondary earner in the couple has wages below minimum wage levels and the family is relatively rich in comparison with those couples where both people are unemployed, or even with single-earner couples. This explains most of the gainers towards the top of the income distribution (on both benefit unit and household bases).

Figure 11.9: Proportions gaining by family type



Source: Family Expenditure Survey 1994/95.

A minimum wage therefore is likely to do little to reduce the growing gap between rich and poor. Social justice arguments for a minimum wage should rather centre on ensuring that individuals are paid wages that reflect their worth.

## 11.4 A Minimum Wage and Government Finance

A minimum wage would affect the government's finances on both the expenditure and the revenue sides. There would be direct effects on the pay bill, indirect effects on the price of services bought by government, and changes to the levels of benefit expenditure and tax receipt. All of these effects are extremely difficult to measure and depend on the responses of employers to the introduction of a minimum wage.

### *Pay Bill*

The direct effect on the public sector pay bill of the introduction of a £4 minimum wage would be positive but relatively small, because there are few workers directly employed by the public sector who are paid below this.<sup>6</sup> Evidence from the New Earnings Survey suggests that the number of workers directly benefiting from the introduction of a minimum wage of £4 an hour in 1996/97 would be less than 50,000. But the indirect effects may be more substantial if differentials are restored between minimum wage workers and others just above minimum wage levels, or through

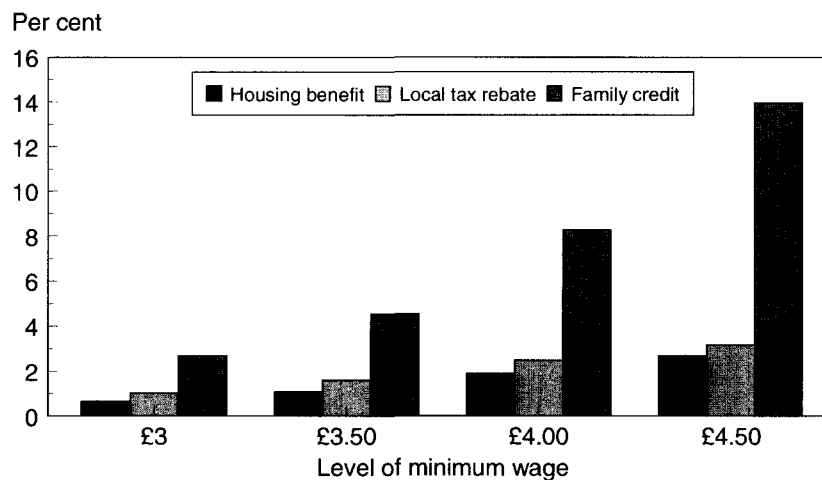
<sup>6</sup>See Trinder, C. (1995), 'What about the public sector?', *New Economy*, pp. 228–32.

increased costs of contracted-out services where staff are paid wages lower than the minimum. The size of these indirect effects is unfortunately extremely difficult to measure.

### Benefits

In terms of social security benefits, it is possible to calculate the first-round effects of a change, assuming no employment effects. Figure 11.10 shows the percentage falls in expenditure on benefits received in work after the introduction a minimum wage at the four different levels, while Figure 11.11 looks at the percentage fall in numbers claiming. As many pensioners receive housing benefits and council tax rebates, we have concentrated on non-pensioners. As can be seen, there is a fall in both expenditures and numbers claiming each of the benefits, and the largest falls are for family credit. But the falls in expenditure and numbers affected are not large, as many families will be entitled to these benefits at wages much higher than any suggested for a national minimum wage. In addition, as we have shown earlier, many of the individuals with wages below minimum wage levels are not in poor benefit units and therefore would not be entitled to any in-work means-tested benefits.

Figure 11.10: Percentage fall in government expenditure on means-tested benefits



Source: Family Expenditure Survey and TAXBEN.



**Figure 11.11: Percentage fall in number of non-pensioners claiming means-tested benefits**



Source: Family Expenditure Survey and TAXBEN.

### *Taxes*

Finally, we would expect a minimum wage to affect the distribution and level of tax payments. Income tax and employee and employer NICs would be expected to raise additional revenue as real incomes for those benefiting from a minimum wage increase. But this would be substantially offset by reduced corporation tax and other capital taxes as profits fall. To the extent that the marginal rate of tax on labour income is greater than that on profits, we might expect the net effect to be positive, but small.

# 12 Education and Training Policy

Increasing investment in education and training is seen by many commentators as vital to the future performance of the UK economy. There is also evidence that the dramatic increase in wage inequality over the 1980s was in part due to the fact that the wages of more-highly-skilled individuals rose substantially faster than those of low-skilled workers.<sup>1</sup> Increasing the provision of work-related training for these low-skilled individuals has been suggested as a possible way of stemming this rise in wage inequality.

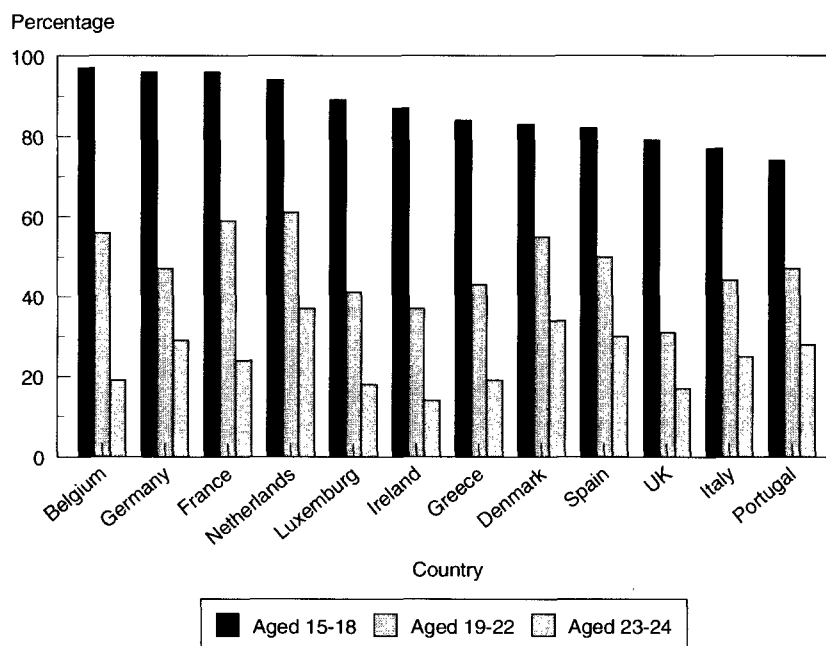
Policies to increase the level of education and training in Britain are high on the political agenda. This is clear from recent statements from the two main political parties:

‘Our aim is to make this country the unrivalled Enterprise Centre of Europe ... one which provides the education and training we need for the world of today and tomorrow’, *Creating the Enterprise Centre of Europe*, Competitiveness White Paper, Foreword.

‘Labour is determined to reverse the falling level of skills within our workforce ... by widening access to retraining for those in work’, *Winning for Britain*, Labour Party.

The UK, however, lags behind other European countries both in terms of the percentage of young people in full-time education (Figure 12.1) and in terms of the percentage of the active population<sup>2</sup> aged over 25 involved in post-compulsory

**Figure 12.1: Percentage in full-time education, EU countries, 1994**



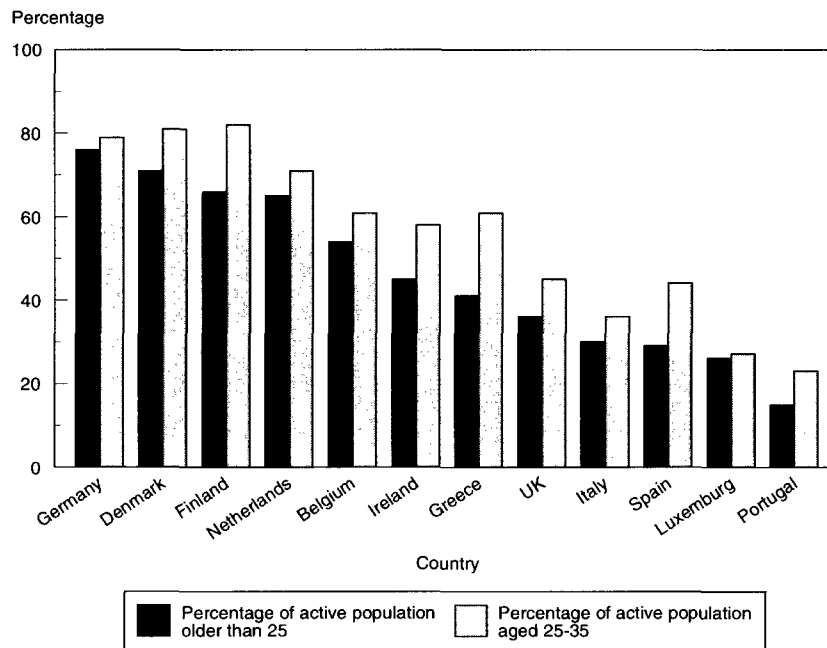
Source: European Commission (1996), *Tableau de Bord 1995*, Brussels.

<sup>1</sup>See, for example, Gosling, A., Machin, S. and Meghir, C. (1994), ‘What has happened to men’s wages since the mid-1960s?’, *Fiscal Studies*, vol. 15, no. 4, pp. 63–87.

<sup>2</sup>Defined as those individuals in work or actively seeking work.

education and training (Figure 12.2). These comparisons, however, are somewhat misleading as undergraduate degree courses in the UK tend to be shorter and are considered by some to be of higher quality than those in other European countries. What are the current policy settings with regard to education and training and what other policy options should be considered?

**Figure 12.2: Percentage in post-compulsory education and training, EU countries, 1994**



Source: European Commission (1996), *Tableau de Bord 1995*, Brussels.

## 12.1 Increasing Investment in Training

Training in all its various forms has become more common in the UK over the last 15 years. Figure 12.3 gives an aggregate picture of what has happened to training incidence in the UK between 1984 and 1995 (based on the UK Labour Force Survey). Whereas in 1984 only 9.2 per cent of employees reported having received training in the last four-week period, by the early 1990s this figure had risen to almost 15 per cent and since that time has remained relatively stable.<sup>3</sup>

<sup>3</sup>From Summer 1994, respondents were asked a new question about training received in the 13 weeks prior to interview before they were asked the question about training received in the previous four weeks. This seems to have altered the way respondents answer the four-week question and caused a discontinuity in the data.

**Figure 12.3: UK training incidence**



Source: Office for National Statistics, *Labour Force Survey*, various issues.

**Box 12.1: National Vocational Qualification (NVQ) levels**

NVQ level 5:	Higher degree
NVQ level 4:	First degree or degree-level qualifications; HNC or HND; BTEC Higher; teaching and nursing qualifications; diploma in higher education; RSA Higher Diploma or Advanced Certificate.
NVQ level 3:	Two GCE A levels; RSA Advanced Diploma; BTEC National; ONC or OND; City and Guilds Advanced Craft.
NVQ level 2:	One GCE A level; 5 GCE O levels, CSEs grade 1 or GCSEs grades A–C; RSA Diploma; City and Guilds Craft; BTEC First or General Diploma.
NVQ level 1:	1–4 GCE O levels, CSEs grade 1 or GCSEs grades A–C; RSA Certificate; City and Guilds Part 1; BTEC First or General Certificate.

Work-related training in Britain has undergone a number of changes over the last 15 years, moving towards a nationally-recognised system of vocational qualifications called National Vocational Qualifications (NVQs) (see Box 12.1). These national targets are drawn up by the National Advisory Council for Education and Training Targets (NACETT) and implemented through locally-based Training and Enterprise Councils (TECs).<sup>4</sup>

In the UK, most work-related training is provided by employers. This training generally involves a mixture of both recognised vocational qualification training and the more common non-qualification firm-specific training. A number of individuals also undertake work-related training that is not provided or funded by their employer at the time (particularly women). At present, research shows that more-highly-educated people have a far greater probability of undertaking employer-provided and

<sup>4</sup>TECs operate in England and Wales and Local Enterprise Councils (LECs) in Scotland.

other qualification training and this training has significant returns to individual workers, adding some 5 per cent to their real earnings.

There are presently a number of government initiatives directed towards increasing investment in training. Since April 1992, a person who undertakes a qualification training course below NVQ Level 5 is entitled to a deduction from their income for tax purposes of the amount paid for course fees. The 'Investors in People' initiative promotes the integration of training into company plans and objectives. Also, the government, under its small firms training loans scheme, makes available loans that are not repayable and that do not accrue interest, for up to 12 months. These are available to businesses with up to 50 employees to cover training costs or consultancy advice on training matters.

There are also a number of government training programmes available to unemployed people, people with disabilities, people from ethnic minorities, people in large-scale redundancies and people returning to the labour market. The main government training programme for unemployed adults is the 'Training for Work' programme which is targeted at individuals who have been unemployed for more than six months and involves occupational skills training or vocational qualification training tailored to an individual's needs. The main government training programme for the young (those aged 16 to 17) is the Youth Training (YT) scheme which is a two-year training programme leading to a national vocational qualification. All government training programmes are approved and monitored by TECs.

There have been a number of studies that have looked at the determinants and effects of training. What these studies tend to show is that it is better-educated individuals, and in particular those who stay in school longer, who are more likely to receive training throughout their life. What the studies also show is that for those individuals who do manage to obtain non-government work-related training, the rewards are large in terms of both the likelihood of remaining in employment and the wages received in work. Studies looking at the impact of government training schemes have in general found the schemes to have little or no impact on a person's future labour market success.<sup>5</sup> The findings from these studies suggest that the focus of government policy should be on increasing both the access to and effectiveness of training for relatively unskilled individuals and in particular the unemployed.

What policy changes should be considered? There are basically three types of policies that the government should consider.

The first, and perhaps most important, are policies directed at improving individuals' education outcomes when they are young. It is clear that the individuals who currently miss out on training, in particular employer-provided training once in work, are those with low levels of basic education. Policies that might be considered in this regard are discussed in more detail below.

A second option that the government should consider is to make further changes to the tax treatment of work-related education and training costs. At present, a person can obtain tax relief for qualification training course fees, but this can only be claimed *after the expense has been incurred*. This may disadvantage individuals from

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<sup>5</sup>See Blundell, R., Dearden, L. and Meghir, C. (1996), *The Determinants and Effects of Work-Related Training*, Institute for Fiscal Studies, London.

relatively poor backgrounds who have serious credit constraints. Incentives to invest in training might be improved if the tax exemption were granted at an earlier stage — for example, treated in a similar way to pension contributions. One way of implementing such a scheme is via a tax-exempt learning account into which the individual (and perhaps even the employer) could contribute. The money from this account could then be used to purchase approved work-related education and training in the future when sufficient funds have been accumulated. This tax exemption could be extended to other costs associated with education and training courses such as textbooks and travel costs.

Finally, it is also clear that the success of current UK government training policies targeting the unemployed is questionable. As Sir Ron Dearing reported earlier this year in his *Review of Qualifications for 16-19 Year Olds*, ‘The association of Youth Training with unemployment has unfortunately affected attitudes towards it, its status and the qualifications associated with it’ (p. 37, 5.9). His comments regarding the Youth Training scheme can be extended to most other government training schemes.<sup>6</sup> The problem with most of these programmes, as Dearing hints, is that the individual does not receive training related to a specific job. Evidence from countries such as Germany, Australia and the US suggests that the most successful policies with respect to the unemployed, and particularly the long-term unemployed, involve providing employers with either wage subsidies or tax reliefs for taking on long-term unemployed persons, and coupling this work with on-the-job training.<sup>7</sup>

In Germany, for example, the federal government operates a wage subsidy programme for the long-term unemployed that lasts one year. The employer receives a wage subsidy of between 60 and 80 per cent of the wage for the first six months and between 40 and 60 per cent of the wage in the following six months, depending on the length of unemployment of the person recruited.<sup>8</sup> Most of the empirical evidence looking at the effects of training on individuals’ labour market outcomes suggests that, once in a job, on-the-job training brings significant improvements in productivity even in low-wage jobs. However, while these programmes have proved to be successful in getting long-term unemployed individuals back to work, it is less clear to what extent these programmes are creating additional jobs or simply reshuffling the unemployment queue. The cost of implementing such a scheme also depends crucially on the target group (how long they have to have been unemployed to be eligible), as well as the level and duration of the wage subsidy. What is clear at the moment is that there is substantial expenditure on government training programmes, but the success of these programmes is highly questionable.

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<sup>6</sup>One notable exception is the move towards the work-based ‘Modern Apprenticeships’.

<sup>7</sup>See, for example, OECD (1994), *The OECD Jobs Study, Evidence and Explanations, Part II*, Chapter 6, Organisation for Economic Co-operation and Development, Paris, and Katz, L. F. (1996), ‘Wage subsidies for the disadvantaged’, National Bureau of Economic Research, Working Paper no. 5697, July.

<sup>8</sup>A similar Australian scheme is the National Training Wage Subsidy Programme, a programme that places the long-term unemployed and school-leavers in employment that offers training approved by the appropriate state training authority. The amount of subsidy paid to the employer depends on the length of time a trainee has been unemployed and the level of traineeship undertaken by the individual.

## 12.2 Measures to Increase Participation in Full-Time Education

The number of school students staying on past the minimum school-leaving age of 16 in the UK and the number of young persons undertaking full-time education are low by international standards (see Figure 12.1 above). Young people (aged 16 to 18) can continue their full-time schooling after the minimum leaving age by pursuing academic qualifications in school or undertaking Advanced General National Vocational Qualifications at a college which provide a more vocationally-oriented alternative to GCE A levels for full-time students.

Despite considerable improvements over the early 1990s, it is still the case that children from relatively poor backgrounds have a significantly lower probability of continuing in full-time school or college-based education past the legal minimum leaving age.<sup>9</sup> Schooling has been shown, in a number of studies from various countries, to be the most crucial ingredient in determining a person's future labour market success in terms of the probability of finding work, the wages received in work and access to work-related training.<sup>10</sup> Policy initiatives are urgently needed to address the problem of low full-time education participation rates among children from relatively disadvantaged backgrounds. Clearly, for such a policy to be successful, there need to be some desire and purpose for those who are to be encouraged to stay on at school.

One way of increasing the incentives for these children to stay in full-time education is to provide direct income support *to the child* from the age of 16 until they complete their full-time studies. Currently, it is only 16- and 17-year-olds undertaking YT who directly receive income support from the state. Introducing a full-time education allowance payable directly to children in full-time education would help reduce the incentives for young people from poor families to leave full-time education at 16.

The Australian AUSTUDY scheme introduced in 1987 has provided quite generous income support to around one-third of children from relatively poor backgrounds aged 16 or over at school (as well as those in other approved full-time education), and this has proved effective in significantly increasing school participation rates among such children (by around four percentage points).<sup>11</sup> The way in which the

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<sup>9</sup>See, for example, Johnson, P. and Reed, H. (1996), 'Intergenerational mobility among the rich and the poor: results from the National Child Development Survey', *Oxford Review of Economic Policy*, vol. 12, no. 1, pp. 127-42, and Payne, J. (1995), *Options at 16 and Outcomes at 24: A Comparison of Academic and Vocational Education and Training Routes*, Department for Education and Employment, Research Series, Youth Cohort Report no. 35.

<sup>10</sup>See, for example, Dearden, L. (1995), 'Education, training and earnings in Australia and Britain', unpublished Ph.D. thesis, University of London, for a review of this large volume of work, and Blundell, R., Dearden, L. and Meghir, C. (1996), *The Determinants and Effects of Work-Related Training*, Institute for Fiscal Studies, London, on how important school qualifications are in ensuring access to work-related training over an individual's working life.

<sup>11</sup>See Dearden, L. and Heath, A. (1996), 'Income support and staying in school: what can we learn from Australia's AUSTUDY experiment?', forthcoming, *Fiscal Studies*.

AUSTUDY programme currently operates for children in school is shown in Box 12.2.

**Box 12.2: 1996 AUSTUDY eligibility rules for secondary students living at home**

The amount of AUSTUDY payable in 1996 depends on the student's **adjusted family income (AFI)** for the previous financial year (1994–95). To calculate the AFI:

**ADD:**

1. Taxable income of parents/guardians
2. Fringe benefits over £500
3. Overseas taxable income
4. Maintenance payments received by parents

**DEDUCT:**

1. £600 for the first dependent child in the family who is under 16
2. £1,250 for each other dependent child in the family who is under 16
3. £1,850 for each other dependent child who is a full-time student aged 16–21
4. Any maintenance paid by the parents

**RATES OF BENEFIT:**

	<i>16- to 17-year-olds</i>	<i>18 years +</i>
Maximum weekly payment	£35.15	£42.28
Maximum payable when AFI less than:	£11,325 p.a.	£11,325 p.a.
reduced by	£2.50 p.a. for each additional	£10 p.a.
AUSTUDY payable until AFI reaches	£16,677 p.a.	£18,167 p.a.
AUSTUDY payable if household assets less than:	£196,875 (excluding private home)	
Maximum payable when student income less than:	£3,000 p.a.	
reduced by	£1 p.a. for every additional £2 p.a.	

Note: The above figures assume that one British pound is equal to two Australian dollars.

Can the UK introduce an affordable education allowance for secondary-school students (and other young people in full-time education) and what would the distributional consequences of such a scheme be? One of the fundamental ideas on which AUSTUDY is based is the idea that incentives to stay in school are greater if income support is paid directly to the child rather than to their parents. One relatively cheap policy option in the UK would be to abolish child benefit for all dependent children aged 16 to 18 and to introduce an education allowance of £10.80 per week<sup>12</sup> paid directly to all 16- to 18-year-olds in full-time education. The reform will also result in £2 more income for families with additional dependent children under the age of 16. This gain arises because the child being paid the education allowance will receive £10.80 and the mother will now receive £10.80 rather than £8.80 for the next eldest child. This reform will not make parents on income support, housing benefit or council tax benefit any worse off, as the reduction in income due to the loss of child benefit would be entirely made up by a one-for-one increase in income support. This would not be true for parents receiving family credit, but for only a modest additional cost (£50 million) they could have their benefit maintained at current levels. All other additional support that is currently paid to parents in respect of the child could remain

<sup>12</sup>This is the amount of child benefit currently paid for the eldest child.



in place. The introduction of such a scheme would cost around £170 million and affect around 935,000 families and just under 1 million children aged 16 to 18. The distributional consequences of the reform for families with children aged 16 to 18 are shown in Table 12.1.

**Table 12.1: Distributional consequences of reform to child benefit for families with 16- to 18-year-olds**

	<i>Household net income before reform</i>	<i>Gain from introduction of education allowance</i>	
Quintile 1 (poorest)	£183.11	£8.48	4.6%
Quintile 2	£275.65	£4.76	1.7%
Quintile 3	£375.51	£1.95	0.5%
Quintile 4	£479.61	£1.19	0.2%
Quintile 5 (richest)	£951.78	£1.12	0.1%
All	£453.13	£3.50	0.8%

In following years, we would expect an increase in full-time education participation as a direct result of the introduction of these child support reforms. This would only hit government coffers to the extent that the introduction of such a scheme draws teenagers away from work, rather than more expensive schemes such as the YT programme. Obviously, more generous income support schemes could be devised that targeted relatively poor families (along the lines of the Australian AUSTUDY programme), but these would come at additional cost. Given the importance of early educational outcomes on a person's future labour market success, more generous schemes targeted at relatively poor families should be given serious consideration by policymakers.

## 12.3 Conclusions

The OECD's *Jobs Study* published in 1994 asked '... what reforms and policy initiatives are required in education and training systems in order to permit lifelong learning and thereby to respond to perpetually changing labour and skill demands?'. It concluded: 'The following policies are identified as crucial for achieving this objective: preventing early school-leaving; improving the school-to-work transition; and upgrading the skills and competences of the adult workforce, especially those with low skills'.

These conclusions should be heeded by policymakers in the UK and new initiatives developed, first to increase full-time education participation by young people, second to increase participation in post-compulsory education and training especially among the low-skilled, and finally to improve the future employment prospects of the long-term unemployed through more effective government training programmes. Introducing policies to tackle these problems effectively will not be cheap in the short term.

# 13 Central and Local Government Relations

## 13.1 The Options for Change

Sub-central tiers of government account for a large share of total government expenditure in the UK. Aggregate local authority expenditure in 1995/96 accounts for 29 per cent of the planned control total<sup>1</sup> and there is also a substantial amount of public money spent by other decentralised agencies of government, such as health authorities and integrated regional offices.

Significant reform of the local finance system in this November's Budget seems highly unlikely but the main political parties differ sufficiently in their policies towards local and regional tiers of government that the outcome of the next general election may make a significant difference to the future structure of governance within the UK. In this year's Green Budget, we therefore highlight three areas where clear differences have emerged in the policies of the two main political parties. These are:

- the establishment of a Scottish Parliament, a Welsh Assembly and a regional tier of government within England;
- the abolition of universal capping of local authority expenditure;
- the return of non-domestic rates to local control.

For each of these areas of policy, we discuss the context of reform, its merits and its dangers, and assess the consequences, if any, for levels of taxation and public spending.

## 13.2 Devolution and Regional Government

Devolution and regional government are once again at the centre of policy debate in Britain. The Conservative Party is committed to retaining the present constitutional arrangements, whilst the Labour Party has a substantial reform agenda. It is committed to legislate for devolution in Scotland and Wales in its first year of government and has more limited plans for introducing a more accountable regional tier of government in England.

### *Current Structure of Regional Government in the UK*

As well as elected national and local tiers of government, there already exists a decentralised tier of government in the UK. The extent of the responsibilities exercised by this regional tier vary between Scotland, England, Wales and Northern Ireland.<sup>2</sup>

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<sup>1</sup> *Financial Statement and Budget Report 1996/97*, HMSO, November 1995.

<sup>2</sup> We do not discuss Northern Ireland.

Within Scotland and Wales, the Scottish and Welsh Offices respectively are responsible for many of the activities normally associated with central government such as health, industrial policy and overseeing local government responsibilities such as education, police and social services.

Within England, a network of 10 'government offices for the regions' was established in April 1994. These are responsible for the work previously carried out by the regional offices of the Departments of the Environment, Transport, Employment,<sup>3</sup> and Trade and Industry. In addition, many central government responsibilities are carried out on its behalf by decentralised single-service agencies. Some of these have a regional dimension, most notably the regional health authorities.

### ***What the Labour Party Proposes***

The Labour Party proposes to transfer the responsibilities presently exercised by the Scottish Office to a new Scottish Parliament which would be elected by proportional representation and exercise both legislative and executive powers.<sup>4</sup> The responsibilities currently exercised by the Welsh Office would be transferred to a directly elected Welsh Assembly. The Welsh Assembly would exercise executive powers but would not have any legislative or tax-raising functions.

The Labour Party also plans to make the integrated regional offices (IROs) accountable to regional chambers whose members would be drawn from the ranks of elected councillors in the region. This may counter criticisms from the Local Authority Associations that the IROs currently represent 'government to the regions and not regions to the government'.<sup>5</sup> In addition, there are plans to introduce at a later date legislation that would enable regional referendums to approve the creation of directly elected regional authorities.

It has been proposed that, subject to the result of a referendum, the Scottish Parliament may be able to vary the basic rate of income tax applying to Scotland by up to three pence in the pound either side of the rate applying in the rest of the UK. There were 2.1 million income tax-payers in Scotland in 1993/94 who contributed 8.7 per cent of total UK income tax receipts.<sup>6</sup> The Treasury forecasts that, abstracting from any effects of tax changes on economic behaviour, one penny on the basic rate of income tax raises £2 billion of revenue in the UK as a whole, which implies that three pence on the basic rate of income tax in Scotland would raise just over £500 million of revenue for a Scottish Parliament, or around £100 per capita. Since the Scottish Office plans to spend £2,700 per capita in 1996/97, a Scottish Parliament's discretion over revenue-raising would be limited to only 3.6 per cent of the Scottish Office's budget for 1996/97,<sup>7</sup> a somewhat limited degree of autonomy.

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<sup>3</sup>The responsibilities of this department are now split between the DTI and the Department for Education and Employment.

<sup>4</sup>The Labour Party, *New Labour, New Life for Britain*, 1996.

<sup>5</sup>Evidence to the House of Lords Select Committee on relations between central and local government.

<sup>6</sup>Source: *Inland Revenue Statistics*, 1995, Table 2.2.

<sup>7</sup>Source: *Financial Statement and Budget Report 1996/97*, HMSO, November 1995.

### *Longer-Run Implications of a System of Regional Government*

An extensive series of fiscal transfers currently exists between the regions that make up the UK. These occur because of regional differences in the pattern of expenditure and tax revenues.

Tax revenues vary according to the distribution of each of the tax bases such as income, expenditure, profits and property values. London and the South East, for example, with per capita incomes 15 per cent above the average for Great Britain, contributes 19 per cent higher tax receipts per capita than the Great Britain average, as shown in Table 13.1.

**Table 13.1: Comparison of per capita tax receipts and spending by region, 1993/94**

<i>Region</i>	<i>GDP per capita</i>	<i>Per capita tax receipts</i>	<i>Spending per capita.</i>
North	89	89	103
Yorkshire & Humberside	91	91	96
East Midlands	95	96	90
East Anglia	101	97	88
London and South East	115	119	100
South West	96	100	90
West Midlands	93	83	94
North West	90	89	103
Wales	84	82	114
Scotland	98	95	120
Great Britain	100	100	100

Source: Blow, L., Hall, J. and Smith, S. (1996), *Financing Regional Government in Britain*, IFS Commentary no. 54, second edition.

Similarly, the pattern of expenditure varies across regions, for a number of reasons. First, applying uniform policies across the UK automatically results in higher spending in some regions; social security payments are higher in poorer regions. Second, certain policies, such as regional policies, are specifically targeted at areas with certain characteristics. Third, the Scottish and Welsh Offices have considerable freedom to vary expenditure between budgetary heads as compared with England. Fourth, subject to the capping arrangements, local authorities may adjust their spending and council tax levels to reflect local needs and preferences.

It is interesting to compare the pattern of spending and tax receipts across the regions of Great Britain as they exist at present. Table 13.1 shows the allocation of per capita tax receipts and per capita spending (by both central and local government) in each of the eight standard regions within England and in Scotland and Wales. This is shown alongside the variation in income per capita. We can see, for example, that Wales is the poorest 'region' of Great Britain, and thus contributes the lowest amount per capita in terms of tax revenue, but spends more per head than any other area except

Scotland. Scotland, by contrast, receives the highest level of government spending per capita despite being the third most prosperous region in terms of GDP per head.

There is no reason, in principle, why the fiscal transfers that currently exist between regions should not continue to occur in the presence of devolved regional government. After all, the local government finance system is characterised by a very extensive system of equalisation of both needs and resources. On the other hand, a move to a more decentralised system of government is likely to make the size of the fiscal transfers more apparent. In the longer run, the size of these fiscal transfers could become a subject of substantial political debate.

### ***Policy Implications***

The democratisation of the existing regional tier of government in England could conceivably produce limited benefits by restricting the freedom regional bureaucrats enjoy in the implementation of national policies, although the effectiveness of the electoral mechanism might be reduced when the preferences of the regional electorate do not closely match those of central government.

More extensive models of decentralisation, such as those proposed for Scotland and Wales, could potentially generate significant benefits for social welfare if this led to a closer correspondence between the pattern of spending in Scotland and Wales and the needs and preferences of Scottish and Welsh residents. However, the exercise of choice is likely to be limited by the rather limited tax-raising powers proposed for a Scottish Parliament and the absence of any form of revenue-raising power for the proposed Welsh Assembly.

## **13.3 Capping Local Authority Expenditure**

In last year's Green Budget, we argued that the abolition of universal 'capping' of local authority budgets was desirable, but the transition process to a more relaxed local finance regime might be problematic. Last November, there was a limited relaxation of the capping criteria on authorities responsible for the provision of education, police and fire services, but the Conservative government largely resisted pressure from its local activists for more dramatic reform. By contrast, the Labour Party remains pledged to the abolition of universal capping, although the precise meaning of its proposed residual capping powers is unclear. In this year's Green Budget, we provide evidence on the extent to which local budgetary decision-making has been replaced by central dictat in 1996/97, and assess the merits and difficulties associated with a move towards a more relaxed local finance system after the next general election.

During 1996/97, central government has continued to exercise a high level of control over the expenditure decisions of local authorities. Very few local authorities are formally capped — only six local authorities set budgets that exceeded the provisional caps announced by the Secretary of State for the Environment last November.<sup>8</sup> However, a majority of authorities effectively 'cap themselves' by setting

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<sup>8</sup>Only two of these (Oxfordshire and Cambridgeshire) were required to reduce their budgets to the original cap.

their budgets equal to the centrally-determined cap. In the present financial year, 77 per cent of all authorities have set their budgets at the centrally-determined cap, compared with 69 per cent in 1995/96. This increase is largely a result of a growing number of shire district authorities that set their budgets at the centrally-determined cap.

The influence of the capping arrangements on the local budgetary process is greater than would be suggested by a simple count of the number of authorities setting their budgets at the centrally-determined cap. Overall, aggregate local authority expenditure in England is a mere 0.3 per cent below the level permitted by the capping system, as shown in Table 13.2, representing less than £10 in council tax on a Band D property.<sup>9</sup> Within England, of those local authorities responsible for the provision of the main strategic services such as education and social services (London boroughs, metropolitan districts, shire counties and the new unitary authorities), only 17 out of 118 authorities set budgets that differed significantly from the central government cap, and these authorities were mostly concentrated in Inner London.

**Table 13.2: The impact of the capping arrangements on local authority budgets, 1996/97**

<i>Class of authority</i>	<i>Number of authorities</i>	<i>Percentage of authorities setting budgets at cap</i>	<i>Variation in spending from aggregate cap<sup>a</sup></i>
London authorities	35	57%	-1.2%
Metropolitan districts	36	89%	0%
English shire counties	35	100%	0%
English district authorities	274	68%	-2%
English unitary authorities	14	100%	0.0%
Metropolitan police and fire authorities	12	92%	0.0%
Non-metropolitan police and fire authorities	47	87%	0%
All English authorities	453	77%	-0.3%
Welsh unitary authorities	22	65%	-0.1%

<sup>a</sup>Budgets are compared with final caps rather than provisional expenditure limits.

Source: *Finance and General Statistics*, 1996/97, CIPFA.

### ***What Problems Might Capping Cause?***

In last year's Green Budget, we advanced four sets of arguments against the extensive use of centralised determination of local authority budgets through the present capping arrangements. First, capping damages the process of competition between parties at the local level due to the inability of rival parties credibly to promise to deliver higher spending or lower taxes. Second, the replacement of local choice by central dictat risks generating a mismatch between the local services for

<sup>9</sup>Source: *Finance and General Statistics*, 1996/97, CIPFA.

which the local electorate vote and are willing to pay, and those that local authorities are able to provide. Third, the capping arrangements are based on maximum increases in expenditure, not maximum absolute levels of expenditure, so higher spending in this financial year generally leads to a higher capping limit next year. This may encourage some low-spending authorities to 'spend up to cap'. Fourth, the replacement of freely-chosen local spending levels by centrally-determined budgets may undermine the integrity of the methods currently used to determine local authority grant levels through the calculation of standard spending assessments (SSAs).

Together, these four factors provide a powerful case for advocating the abolition of universal capping of local authority expenditure. Such a reform would pose two sets of dangers for central government. First, would central government be able to keep a grip on general government expenditure (GGE) which includes local authority spending in the absence of a generalised capping power? Second, would the transition period from the present system of universal capping to a more relaxed regime that involved only residual capping powers present any particular problems?

- **Local expenditure control in the long run.** Central government has a major interest in monitoring local government expenditure, including that that is self-financed through the council tax. This is principally because local authority expenditure is included within the control total, which is the basis for the annual Public Expenditure Survey. In addition, central government has set a target of reducing a broader measure of spending, GGE(X), below 40 per cent of GDP. In order to meet its own targets for public spending, central government needs to influence the spending choices of local authorities. One major advantage of the present capping arrangements for central government is that local authority expenditure is rendered highly predictable for the purposes of planning public expenditure.

Under a more relaxed local finance system, a major constraint on local authority expenditure would be exercised through the ballot box. If the local finance system were both stable and transparent, this 'accountability' constraint should be sufficient to ensure that local authorities do not choose inefficiently high levels of spending.

In order for this accountability constraint to operate effectively, a number of conditions would have to be met. First, the incidence of local taxes should be clearly perceived, as is the case with the council tax. Second, local tax bills should be more responsive to local spending decisions than to changes in the formula that distributes grant to local authorities. The present extremely narrow local tax may not be conducive to this. Third, the local finance system should not involve excessive equalisation arrangements due to the local tax base being very unevenly distributed between local authority areas. The 'nationalisation' of non-domestic rates in 1990 allows this criterion to be met.

Under the present local finance system, local authorities would therefore face substantial incentives to moderate any proposed spending increases because of the very high gearing ratios, which mean, on average, that a 1 per cent increase in spending by a local authority raises local tax bills by almost 5 per cent, with gearing ratios being even higher in those authorities with high measured needs or low resource bases.

The impact of any future enlargement of the local tax base on these restraints would be mixed. A larger local tax base would reduce the responsiveness of local tax bills to changes in the grant distribution formula, and sharpen the link between local taxes and local spending decisions. On the other hand, a larger tax base would reduce gearing ratios, which might render the transition to a more relaxed local finance system more problematic.

- **Local expenditure control in the transition period.** The major difficulties that the abolition of universal capping would pose for control of local authority expenditure seem more likely to appear during the transition period to a more relaxed local finance system than once that system has become established. There are three potential problems that might confront a government that wanted to escape from the present restrictive arrangements. First, since the vast majority of local authorities now set their budgets at the centrally-determined cap, it is very difficult for central government to determine either how tight the cap actually is or what the distribution of local spending decisions might be if local authorities were free to set their own budgets. Second, if those local authorities that have had their spending restricted by centrally-determined caps for a number of years try to 'catch up' in one leap, council tax bills could increase significantly year-on-year, leading to political repercussions that central government might not be able to avoid completely. Third, if a 'bonfire of caps' led to an excessive rise in aggregate local spending, central government might feel the need to reimpose some form of restriction. Anticipating this, local authorities might be tempted to increase spending in the first year after restrictions were lifted by more than the amount strictly necessary to redress the imbalance between actual spending and desired spending. This additional increase to local spending would make the reimposition of capping more likely.

One should not exaggerate the size of these problems because the high gearing ratios of the present local finance system should, in themselves, generate significant pressure on local authorities to moderate any expenditure increases. It is noteworthy that in 1996/97, the number of authorities in Inner London that budgeted below cap actually increased from three in 1995/96 to 10. A major influence on the local budgetary process in Inner London this year was a 4.2 per cent cut in revenue support grant in nominal terms. This is consistent with a view that high gearing ratios pressurised some authorities into restraining expenditure within a more generous cap.

#### ***The Impact of the Abolition of Capping on Council Tax Bills and Public Expenditure***

We have argued above that it would be extremely difficult for central government to predict the changes in council tax bills that would be likely to result from a relaxation of the present capping arrangements. Nevertheless, as an illustrative example, we have estimated council tax bill changes for two alternative scenarios.

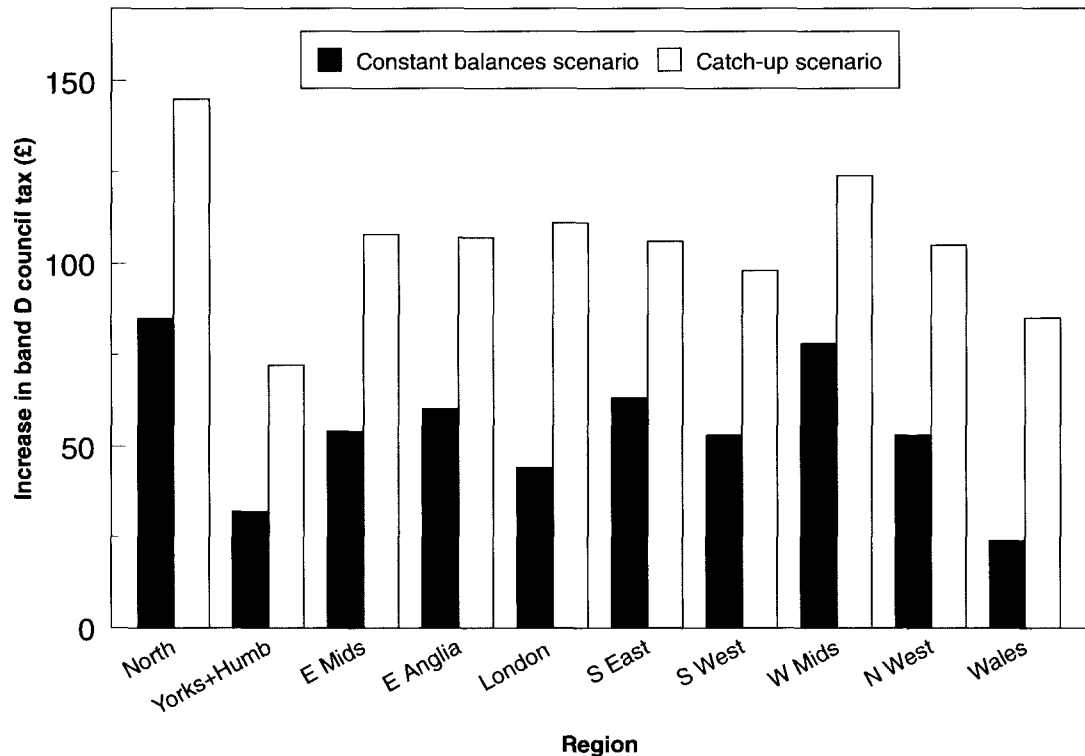
##### **Constant balances scenario**

*Local authorities keep expenditure constant but raise council taxes to prevent any further erosion of reserves.*



Over the last few financial years, local authorities have budgeted to make significant reductions in their reserves (since spending from reserves does not count against the expenditure cap). Thus, for example, during 1996/97, local authorities in England and Wales are planning to finance £993 million of their current expenditure by drawing on reserves. If this were spread equally across all authorities, this amount of revenue would be equivalent to £58 of council tax on a Band D property, an increase

Figure 13.1: Regional changes in Band D council tax bills



Source: *Finance and General Statistics, 1996/97, CIPFA.*

of 9.1 per cent on the average Band D council tax of £637.<sup>10</sup> However, some authorities are choosing to spend from their reserves by more than others, so in Figure 13.1, we show the average change in tax bill for all local authorities within a region.

An alternative scenario would be if local authorities maintained their reserves at current levels and increased expenditure by 2 per cent in real terms to make up for the cumulative impact of capping arrangements on local authority budgets. Figure 13.1 also illustrates the average change in tax bill by region under this 'catch-up' scenario. Such a uniform increase in expenditure between authorities is, of course, highly unlikely since it implies that all local authorities have had their spending curbed by the capping arrangements to exactly the same extent, but it serves as an illustrative example.

<sup>10</sup>Source: *Finance and General Statistics, 1996/97, CIPFA.*

**Catch-up scenario**

*Local authorities maintain reserves at present levels and increase spending by 2 per cent in real terms.*

In terms of the public finances, the 'constant balances' scenario would not affect the control total and GGE since the financing of existing expenditure would merely be switched from reserves to the council tax. Alternatively, the 'catch-up' scenario would raise the control total and GGE by £954 million. This would increase GGE(X) by 0.3 per cent.

## 13.4 Non-Domestic Rates

A third aspect of central/local relations in which the policies of the main political parties differ substantially is over which tier of government should have control over non-domestic rates. This tax, which is paid by the occupiers of business property, raised some £13.4 billion<sup>11</sup> of revenue in 1995/96, compared with £23.6 billion raised by corporation tax and £9.7 billion raised by council tax. Six years after a system of locally-varying rates was replaced by a national tax with revenues hypothecated to local government, the return of non-domestic rates to local authority control remains on the political agenda of the Labour Party.

Until April 1990, local authorities determined tax rates, known as rate poundages, which applied to the occupiers of both domestic and non-domestic properties in their areas.<sup>12</sup> In 1990, as part of a package of reforms to the local finance system which included the replacement of domestic rates by the ill-fated community charge (poll tax), non-domestic rates were effectively *nationalised* and tax revenues distributed to local authorities.

A single tax rate, known as the uniform business rate (UBR), is set for England and Scotland, with a different UBR being set for Wales. These tax rates have been frozen in real terms since 1990. The tax bill for an individual enterprise under this national non-domestic rate (NNDR) is calculated by multiplying the UBR by the rateable value of the property,<sup>13</sup> subject to any transitional relief.<sup>14</sup> Non-domestic rates are collected by local authorities, submitted to a central pool and then redistributed back to local authorities on a simple amount per capita basis.

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<sup>11</sup>HM Treasury's Summer Economic Forecast 1996.

<sup>12</sup>Domestic rate relief ensured that tax rates paid on domestic property were 18.5 pence less than those applying to non-domestic properties, with a higher differential in certain Inner London authorities.

<sup>13</sup>Roughly speaking, rateable value is the rent the property could earn if it were let on the open market at the valuation date (currently 1 April 1993).

<sup>14</sup>A scheme of transitional relief smooths the impact of introducing the 1995 Valuation List on the tax bills of individual businesses.

We examine the arguments for and against such a reform and consider the possible consequences for local tax bills.

### ***The Case for Reform***

A number of reasons have been suggested for returning business rates to local control.

- **To enhance local choice.** The proportion of discretionary local spending financed through local taxes has fallen from roughly half during the 1980s to around 23 per cent today.<sup>15</sup> If ‘he who pays the piper calls the tune’, central finance may lead to ever more detailed regulation of how that money is spent, reducing local autonomy and choice.
- **To reduce gearing ratios.** At present, local taxes contribute roughly 23 per cent of local spending on average but 100 per cent of local spending at the margin. This means that, on average, a 1 per cent increase in local spending relative to SSA leads to an almost 5 per cent increase in local tax bills, with much larger percentage increases in some areas with high needs and low resources. Such high ‘gearing ratios’ damage accountability by rendering local tax bills more sensitive to changes in central grant than to local spending decisions. In addition, the ability of voters to evaluate their own council’s performance by comparing its packages of service provision and local tax bills with those of other authorities may be rendered far more complex.
- **To encourage partnership between local authorities and local business.** It is often mistakenly alleged that the 1990 reforms removed the incentives for local authorities to attract business to their areas. In practice, there has been no direct link between local revenues and the size of the local non-domestic rate base either before or after the 1990 reforms. The grant system of the 1980s served effectively to equalise the tax base of each local authority so authorities effectively lost a pound in grant for every pound in revenue they gained from growth in the tax base.<sup>16</sup> Some form of equalisation would occur in any conceivable system of locally-varying business rates.
- **‘Fair shares’.** At present, local authorities provide different standards of service to their local business communities and yet this is not reflected in the tax rates that they pay. This may well be an anomaly, but a full-blown return to locally-varying business rates appears to be a somewhat disproportionate response since the bulk of local spending, on services such as education and social services, provides services to households, not directly to business.
- **Administrative simplicity.** Compared with alternative candidates for an additional local tax, non-domestic rates have a number of administrative advantages. It is fairly

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<sup>15</sup>Local authorities also spend considerable resources on administration of such services as council tax benefit, housing benefit and mandatory student awards, which they carry out on behalf of central government.

<sup>16</sup>This was not true for a small but increasing number of authorities that were ‘grant-exhausted’ during the 1980s.

straightforward to allocate the tax base between local authority areas, it is cheap to collect and the tax base is relatively immobile.

In summary, the arguments that have been advanced for a return of non-domestic rates to local control seem far from convincing. The most pressing argument for an expansion of the local tax base is clearly a reduction in gearing ratios to increase local accountability, but this argument applies to any additional local tax base, not specifically to non-domestic rates. The explanation for a choice of non-domestic rates as a candidate for an additional local tax may have more to do with the simplicity than the desirability of the reform.

### *The Case against Reform*

As well as the case for the return of non-domestic rates to local control being far from convincing in its own right, there are a number of significant drawbacks to such a reform. These are discussed at length in the 1986 Green Paper *Paying for Local Government*, which advanced two principal arguments against the operation of non-domestic rates as a local tax.

- **Locally-varying business rates damage local accountability.** Local business rates place some of the burden of local spending on firms which do not have a vote, breaking the link between taxation and representation. In addition, the uneven distribution of the tax base necessitates complicated equalisation arrangements which blur the link between local spending decisions and household tax bills. Thus local voters may misperceive the true cost of higher local spending and make inefficient spending decisions.
- **Locally-varying business rates are bad for business.** Local authorities differ quite markedly in their spending choices. Under a system of locally-varying business rates, this would be reflected in variations in tax rates. In 1989/90, rate poundages varied from 122 pence in the pound in Kensington and Chelsea to 400 pence in the pound in Sheffield. In principle, this may lead to fiscally-induced migration of businesses from high-tax areas to lower-tax areas, which generates a dead-weight loss for the economy as a whole. In practice, the empirical evidence on the effect of locally-varying business property taxes on economic activity is rather mixed.<sup>17</sup> In addition, the system of full resource equalisation that operated during the 1980s made transfers of resources between local authorities, and therefore local tax bills, heavily dependent on the spending decisions of a small number of high-resource authorities.

### *Impact of Local Business Rates on Council Tax Bills*

A reform such as the return of non-domestic rates to local control would, if taken in isolation, simply represent a rebalancing of the local tax system. Since the majority of local authorities now set their budgets at a centrally-determined cap, a larger local tax base combined with a retention of the present capping arrangements would simply

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<sup>17</sup>See Denny, K., Hall, J. and Smith, S. (1995), *Options for Business Rate Reform*, Institute for Fiscal Studies, for a survey.

redistribute some of the burden of paying for local services from the council tax to non-domestic rates. Thus council tax bills would typically fall in the 79 per cent of authorities that spend above SSA (since the tax burden of supporting the 'additional' expenditure would now fall across two tax bases) and rise in low-spending authorities (where the 'benefits' of lower spending would now have to be shared with business rate payers). Changes in total local tax bills (council tax and business rates combined) would depend heavily on which system of equalising the resources available to individual local authorities was used.

### ***Overall View***

In isolation, it is very difficult to see many significant advantages from returning non-domestic rates to local control since this would simply redistribute the burden of local taxation between council tax payers and the business sector, with overall levels of expenditure still determined by the central government cap. One possible attraction would be the reduction of gearing ratios that would result from an enhanced local tax base, but the gains in accountability that would result from this would have to be balanced against the losses in accountability generated by a locally-varying non-domestic rate.

A more convincing case for an enhanced local tax would be as part of a package of reforms that included the abolition of the generalised capping of local authority expenditure. However, non-domestic rates are not an ideal local tax, and advocates of their return to local control appear to be driven more by nostalgia and administrative simplicity than by being convinced of the case for the reform in its own right.

## **13.5 Central/Local Relations**

The two main parties apparently do differ significantly in their view of the future structure of central/local relations within the UK. Whilst there are clearly elements of complementarity between some of the reforms in the long run, since both a larger local tax base and an abolition of generalised capping of local spending would return more decision-making powers to local authorities, timing issues may be important since these reforms would make less suitable bedfellows in the shorter run. The present restricted local tax base and associated high gearing ratios are likely to ease any transition from the present capping arrangements to a more relaxed local finance system. At a later date, this more relaxed local finance system would provide the conditions under which an enhanced local tax base would allow greater local autonomy.

In terms of the impact of these reforms on taxation and public expenditure, the return of non-domestic rates to local control would, by itself, have no significant implications for overall levels of taxation, but could represent a redistribution of the tax burden of financing local expenditure from households to the non-domestic sector. The abolition of generalised capping, in contrast, could potentially have a significant impact on general government expenditure, but not on the PSBR since local authorities are not allowed to borrow to finance current expenditure. On the other hand, the high rate of gearing between local expenditure increases and local tax

bills is likely to serve as a significant brake on any substantial impact on the government finances.

The proposals for devolution would only have implications for taxation and public expenditure within Scotland since it is only there that the proposed regional tier of government would have any revenue-raising powers of its own. Even in this case, however, the proposed tax-raising powers of a Scottish Parliament are relatively modest.

# Appendix A. Forecasting the PSBR

This appendix outlines the methods we have used to forecast the state of the public finances during 1996/97 and beyond. We begin by comparing the forecasts for taxation and public expenditure included in last year's Green Budget with the out-turn figures for 1995/96 published in the Treasury's 1996 Summer Economic Forecast. We outline our two principal methods for forecasting tax revenues, one based on the pattern of tax receipts collected so far in 1996/97, the other based on our forecast of developments in the macroeconomy over the coming year. We then present our forecast for the likely state of the public finances in 1996/97.

Looking ahead into the medium term, we present our central forecast of the likely path of the public finances up to and including the year 2000/01. We consider the impact of three alternative scenarios for the stance of fiscal policy. These scenarios involve higher-than-planned real increases in public expenditure, faster growth in the economy, and a 'neutral' Budget which balances cuts in taxation with a reduction in planned public expenditure.

## A.1 An Assessment of PSBR Forecasts in Last Year's Green Budget

In last year's Green Budget, we underestimated the size of the 1995/96 public sector borrowing requirement (PSBR) by £5.6 billion, compared to the £3.2 billion forecast error in last year's Financial Statement and Budget Report (FSBR), which is published two months later in the fiscal year. The forecast error was roughly evenly split between taxation receipts and public expenditure, as is shown in Table A.1. On the taxation side, we were overly optimistic, failing to forecast the slowdown in the economy towards the end of the financial year. On the expenditure side, we forecast that lower inflation than had been assumed when spending plans were first drawn up would allow the Chancellor to reduce public expenditure in cash terms and still deliver his real spending plans. In practice, the control total for 1995/96 was not reduced between the 1995 Summer Economic Forecast (SEF) and the November 1995 Budget, and the out-turn spending figure, at £255.6 billion, was very close to the Budget forecast.

**Table A.1: Comparison of forecast and out-turn public finances, 1995/96**

(£ billion)	<i>IFS Green Budget</i>	<i>FSBR, November 1995</i>	<i>Summer Economic Forecast 1996</i>
General government receipts	272.3	271.9	268.9
General government expenditure	299.8	302.1	302.7
PSBR	26.6	29.0	32.2

Table A.2 shows the forecast errors for tax receipts, taken in aggregate and for three of the main sources of tax revenues, as compared to the 1995 out-turn figures

published in the 1996 SEF. Almost all of the errors are positive — slower growth during the latter half of 1995/96 led to lower year-on-year growth in receipts than we had forecast in last year's Green Budget.

**Table A.2: Forecast errors for general government receipts, 1995/96**

(£ billion)	<i>Summer Economic Forecast 1995</i>	<i>IFS current receipts</i>	<i>IFS modelled receipts</i>	<i>Green Budget forecast</i>	<i>Treasury FSBR</i>	<i>Summer Economic Forecast 1996 (out- turn)</i>
Income tax	0.8	1.3	-0.2	0.2	0.8	68.1
Corporation tax	2.5	0.6	0.9	1.4	1.1	23.6
VAT	2.3	1.8	1.2	1.8	0.9	43.1
Total Inland Revenue	3.4	2.0	0.4	1.4	1.8	97.0
Total Customs and Excise	2.9	1.0	3.6	1.9	0.9	76.5
General government receipts	7.5	3.1	3.6	3.4	3.0	268.9

The current receipts approach led to over-optimistic forecasts of all of the major taxes, largely attributable to a slowdown in the growth rate of the economy towards the end of the financial year. The growth slowdown meant that a larger proportion of 1995/96 tax receipts had been collected by August 1995 than is normally the case, leading us to overestimate the year-on-year growth in tax receipts. The change in the timing of receipts was largest in the case of VAT, with a rise from 41 per cent in 1994/95 to 43 per cent in 1995/96.

The modelled receipts approach also led to over-optimistic forecasts of tax receipts for 1995/96, due to the economy growing more slowly than assumed in our central macroeconomic forecast last year.

## A.2 Methods for Forecasting Tax Receipts

In this section, we describe the two main methods that we have used to forecast tax revenues in the current financial year: a *current receipts* method, which uses information on the rate of growth of tax receipts available by mid-September 1996 to make revenue predictions for the whole of 1996/97, and a *modelled receipts* method, which multiplies forecast changes in various tax bases during 1996/97 by the estimated elasticities of tax revenues to changes in the tax base. These two methods are discussed in some detail below.

### *Current Receipts Forecasts*

The current receipts method uses the following formula to estimate revenues for the fiscal year 1996/97 based on the data available for tax receipts so far:



$$1996/97 \text{ forecast} = \frac{\text{April} - \text{August 1996 out-turn}}{\text{April} - \text{August 1995 out-turn}} \times 1995/96 \text{ out-turn.}$$

The current receipts methods is a useful way of predicting tax revenues when the pattern of tax receipts is relatively stable over the years and a large proportion of tax receipts are collected in the first few months of the financial year. However, although expected seasonal patterns are accounted for, the estimates are sensitive to one-off fluctuations in GDP growth. The current receipts approach is particularly sensitive to changes in the timing of tax payments. This is of most concern for those taxes that are collected in lumps at certain times of the year and for which only a small proportion of total annual receipts are likely to have been collected at the time of our forecast.

For income tax, corporation tax, value added tax and National Insurance contributions, we use data to August 1996. Around 40 per cent of the annual yield of these taxes is usually collected by this time of year, except for corporation tax, where receipts tend to arrive in 'lumps' in April, July, October and January. We only have receipts information for two of these months and these are not the two months in which receipts tend to be largest.

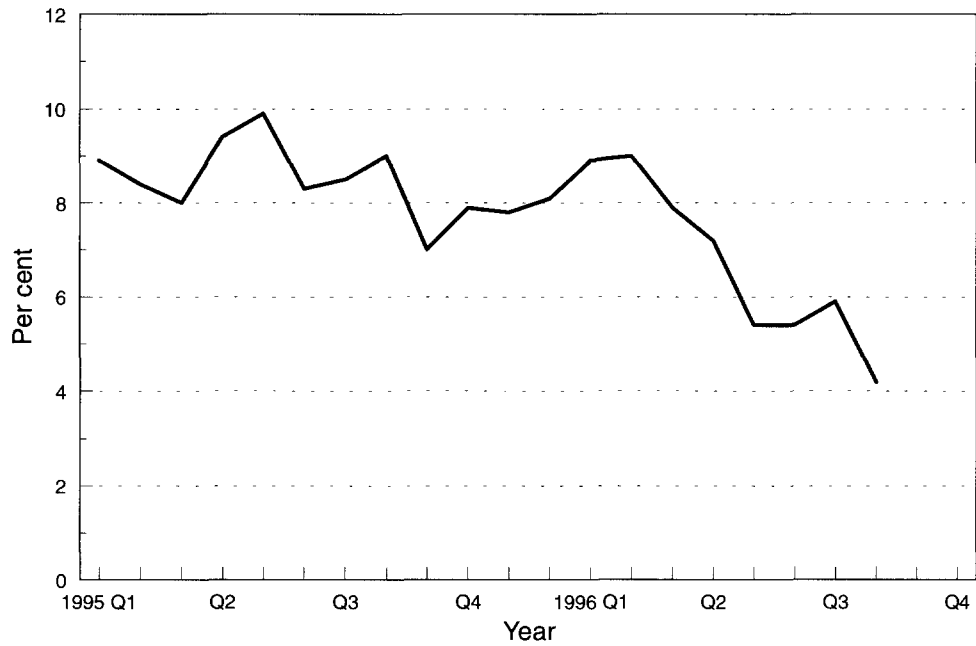
For other tax receipts, we use data up to July, meaning that the proportions of annual taxes collected are smaller (around 30 per cent) except for capital gains tax, where receipts are concentrated in the months from November to January. These factors must be taken into account when considering the accuracy of the tax receipts forecasts we make using this current receipts approach.

Table A.3 shows the percentage of annual tax receipts for which information has been made publicly available by late September for each of the last five years. Whereas the percentage of annual income tax receipts collected by October has only fluctuated between 40 and 42 per cent over the last five years, the equivalent range for corporation tax is 23–31 per cent. This method is not really suited to predicting corporation tax revenues — not only have a lower proportion of annual revenues been collected at this stage of the year than for the other major taxes, but this percentage is also highly variable.

**Table A.3: Percentage of annual receipts for which information is available by end September**

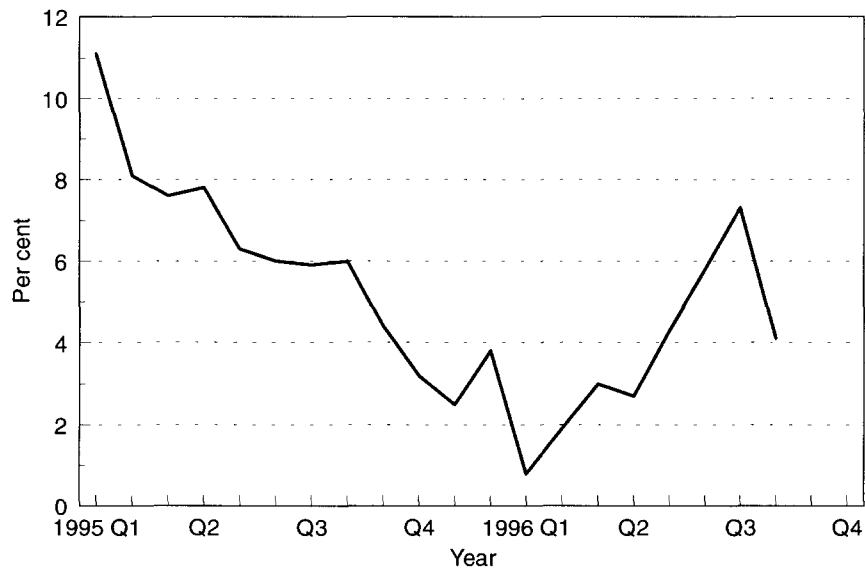
	1991/92	1992/93	1993/94	1994/95	1995/96
Income tax	40%	42%	40%	40%	40%
Corporation tax	31%	28%	29%	23%	24%
Capital gains tax	19%	19%	10%	5%	9%
Inheritance tax	35%	35%	23%	25%	32%
Stamp duties	38%	27%	24%	25%	31%
VAT	41%	41%	39%	41%	43%
Alcohol duties	31%	31%	30%	32%	32%
Tobacco duties	28%	29%	32%	30%	26%

**Figure A.1: Twelve-month moving average of growth in income tax receipts**



Source: *Financial Statistics*, HMSO.

**Figure A.2: Twelve-month moving average of growth in VAT receipts**



Source: *Financial Statistics*, HMSO.

The current receipts method is sensitive to changes in the timing of tax receipts. This has been a cause of concern this year because the pattern of tax receipts for some of the major taxes has been rather volatile. After a number of months of slow growth in receipts earlier on in the year, there was a surge in income tax receipts in July 1996 followed by a disappointing yield the following month. Figure A.1 shows a 12-month moving average for the growth of income tax receipts, indicating that the current

receipts method would have predicted a far higher level of annual receipts using information to July 1996 than with the information available by the following month.

The pattern of VAT receipts this year has also been rather volatile, as shown in Figure A.2. After several months of accelerating receipts, growth at the start of the year, the annualised growth rate fell off in August.

### *Modelled Receipts Method*

Our modelled receipts approach models changes in tax revenues by multiplying forecast changes in the tax base by estimates of the elasticity of tax revenues to changes in the tax base.

Our basic approach is given by the following formula:

$$1996/97 \text{ tax revenues} = 1995/96 \text{ tax revenues} \times \frac{1996/97 \text{ tax base}}{1995/96 \text{ tax base}} \times \text{Elasticity}$$

In last year's Green Budget, we revised our estimates of the elasticity of tax revenues to the relevant tax bases downwards in response to some evidence that the equilibrium level of many tax elasticities had changed. In other words, tax revenues seemed less responsive to changes in the tax base than had previously been the case. This had led to over-optimistic forecasts of tax receipts in the Green Budget two years ago, despite broadly correct macroeconomic forecasts. In this year's Green Budget, we retain the micro-elasticity estimates that we used last year. These are

**Table A.4: Tax bases and elasticities for model forecasts<sup>a</sup>**

<i>Tax</i>	<i>Tax base</i>	<i>Elasticity of tax changes to change in tax base</i>
Income tax	Nominal wages	1.56
	Lagged employment	1.18
	Proportion of part-time employees	-0.26
	Lagged-error correction model <sup>b</sup>	-0.22
Corporation tax	Nominal gross profits	1.2
VAT	Nominal consumers' expenditure	1.1
National Insurance	Nominal wage bill	1.05
Petrol	Real consumers' expenditure	1
Tobacco	Real consumers' expenditure	0.25
Beer	Real consumers' expenditure	0.85
Wines	Real consumers' expenditure	1.5
Spirits	Real consumers' expenditure	0.95

<sup>a</sup>The derivation of these tax base elasticities is discussed in more detail in last year's Green Budget.

<sup>b</sup>The model used to estimate income tax receipts is described in more detail in last year's Green Budget.

shown in Table A.4. As can be seen, income tax receipts are more responsive to nominal wage growth than to employment growth (the result of a progressive tax structure) and relate negatively to the proportion of part-time employees (again due to progressivity). For the excise duties, we find that goods such as wine with a relatively high income elasticity of demand are far more responsive to growth in overall consumers' expenditure than goods such as beer and tobacco where demand is less income-elastic.

Table A.5 gives our working assumptions about the out-turn for the macroeconomic indicators that form the tax bases outlined above. We also provide some evidence on how sensitive our forecast of the PSBR in 1996/97 is to alternative values of these key indicators. Thus, if wage growth actually turned out to be 4.9 per cent rather than our central forecast of 3.9 per cent, this would alter our PSBR forecast by £1.6 billion.

**Table A.5: Macroeconomic assumptions and sensitivity analysis**

<i>Macroeconomic indicator</i>	<i>1996/97 forecast (% growth)</i>	<i>1996/97 alternative (% growth)</i>	<i>PSBR sensitivity</i>
GDP <sup>a</sup>	2.4%	***	N/A
Wages	3.9%	4.9%	£1.6 billion
Retail prices	2.1%	3.1%	£0.9 billion
Consumers' expenditure	3.2%	4.2%	£0.7 billion
Employment (lagged)	0.4%	1.4%	£0.8 billion

<sup>a</sup>The sensitivity of revenue predictions to a one percentage point change in GDP forecasts varies according to which component part has led to the change in GDP.

One significant change in our approach in this year's Green Budget has been in the modelling of corporation tax receipts. Given the close relationship between taxable aggregate profits and corporation tax receipts shown in Figure 8.1 in the main text, this measure of aggregate profits has been used as the basis for the 1996/97 forecasts of corporation tax receipts. Taxable aggregate profits are estimated as gross trading profits for companies and financial institutions plus rent and income from abroad, net of interest and depreciation. The quarterly data are adjusted to a fiscal-year basis, and the year-on-year growth rates calculated. The growth in taxable profits between 1994/95 and 1995/96 suggests that, given an approximate lag of one year for corporate tax receipts, nominal growth in corporation tax between 1995/96 and 1996/97 will be approximately 6 per cent.<sup>1</sup> Alternative sources of information on corporation tax that have not shown such a close relationship with corporation tax receipts over the past eight years, such as current receipts and company-level profits data, suggest that growth might be significantly higher than 6 per cent. Our judgemental forecast is slightly higher than that predicted by taxable profits to take account of this.

<sup>1</sup>Due to a change in the data available in the National Accounts, the figures for rent and other income and interest payments for the first quarter of 1996 were estimated by applying the year-on-year growth rate for the final quarter of 1995 to those figures.

## A.3 Revenue Forecasts for Fiscal 1996/97

Table A.6 presents tax receipts forecasts for 1996/97 using a number of methods. The first column shows the Treasury forecasts published in the Summer Economic Forecast 1996. The second column is based on the current receipts method discussed above. This forecasts general government receipts to be £1.1 billion lower than the SEF. The third column shows revenue forecasts derived from our modelled receipts method. This method forecasts revenue receipts exactly £1 billion higher than the SEF. The final column presents our judgemental forecast, which combines all of the information available to date.

**Income tax** receipts came in slightly below forecast last year and this undershoot is likely to carry over into 1996/97. Between last year's FSBR and this year's SEF, the forecast for income tax receipts in 1996/97 fell from £70.2 billion to £68.9 billion. This is exactly the level forecast by the current receipts method using information up to August 1996. However, had we used information up to July, our forecast would have been much higher, as shown in Figure A.1. Thus our judgemental forecast is for 1996/97 income tax receipts to be £69.5 billion.

**Corporation tax** receipts for 1995/96 undershot the Budget forecast last November by £1.1 billion. Thus the Treasury forecast for 1996/97 receipts fell from £26.6 billion in last November's Budget to £25.7 billion in the SEF. Our judgemental forecast this year is £25.6 billion, based on our revised modelled receipts approach.

Overall, we predict the yield of **Inland Revenue** taxes in 1996/97 to be £101 billion, £0.3 billion higher than the SEF. This is slightly more pessimistic than the pattern of tax receipts so far this year would suggest, but slightly more optimistic than our modelled approach predicts.

The out-turn for **VAT** receipts in 1995/96 was far lower than generally expected. The Treasury reduced its forecast from £45.4 billion in the 1995 SEF to £44.0 billion in last November's Budget, and yet receipts still undershot by £0.9 billion, despite actual growth in consumers' expenditure being broadly in line with the November 1995 Budget forecast. This suggests that the relationship between consumers' expenditure and VAT receipts has changed over the last few years.

There are two basic explanations for why this might have occurred.

- **Change in the tax base.** The ratio of expenditure on VATable goods to expenditure on non-VATable goods may have changed. Historically, the proportion of expenditure on VATable goods tends to vary cyclically, growing during recoveries since the income elasticities of VATable goods such as consumer durables are higher than those of non-VATable goods such as food. Whilst this ratio is likely to be affected by such factors as consumer confidence, it is not obvious why this might have been lower.
- **Change in the effective tax rate.** The level of VAT receipts for a given level of VATable expenditure may have fallen. This might occur, for example, if there was an increase in fraud or if there was a tendency for businesses with turnovers that exceeded the VAT registration threshold to split up into a number of smaller businesses, with the individual turnovers of each business below the VAT threshold.

Table A.6: The public finances, 1996/97

(£ billion)	<i>Summer Economic Forecast</i>	<i>IFS current receipts</i>	<i>IFS modelled receipts</i>	<i>IFS forecast</i>
Income tax	68.9	68.9	68.3	69.5
Corporation tax	25.7	27.2	25.6	25.6
Petroleum revenue tax	1.2	1.2	0.9	1.2
Capital gains tax	0.9	0.9	0.8	0.9
Inheritance tax	1.5	1.8	1.5	1.5
Stamp duties	2.3	2.4	2.1	2.3
<b>Total Inland Revenue</b>	<b>100.7</b>	<b>102.4</b>	<b>99.2</b>	<b>101.0</b>
VAT	46.7	44.8	45.9	47.0
Petrol	17.5	17.0	18.1	17.2
Tobacco	7.8	7.9	8.1	7.9
Alcohol	5.8	5.8	6.0	5.8
Betting and gaming	1.7	1.5	1.6	1.5
Customs duties	2.2	2.2	2.4	2.2
Agricultural levies	0.2	0.2	0.1	0.2
Air passenger duty	0.4	0.4	0.3	0.4
Insurance premium tax	0.6	0.6	0.7	0.6
Landfill tax	0.1	0.0	0.1	0.1
<b>Total Customs and Excise</b>	<b>83.0</b>	<b>80.2</b>	<b>83.4</b>	<b>82.8</b>
Vehicle excise duties	4.2	4.2	4.3	4.2
Oil royalties	0.6	0.0	0.6	0.6
Business rates	14.3	14.7	14.0	14.3
National Insurance contributions	46.6	47.2	46.4	47.2
Council tax	9.8	9.9	10.2	9.8
Other taxes and royalties	5.9	5.7	6.3	5.9
<b>Total taxes and social security contributions</b>	<b>265.2</b>	<b>264.2</b>	<b>264.3</b>	<b>265.8</b>
Interest and dividends	5.0	5.0	5.6	5.0
Gross trading surplus and rent	5.2	5.2	5.0	5.2
Other receipts	4.9	4.9	6.9	4.9
<b>General government receipts</b>	<b>280.4</b>	<b>279.3</b>	<b>281.8</b>	<b>280.9</b>
Control total	260.2	260.2	260.2	260.2
Cyclical social security	14.3	14.3	14.3	14.3
Central government debt interest	22.2	22.2	22.2	22.2
Accounting adjustments	10.0	10.0	10.0	10.0
<b>GGE(X)</b>	<b>306.8</b>	<b>306.7</b>	<b>306.7</b>	<b>306.7</b>
Privatisation proceeds	-4.5	-4.5	-4.5	-4.5
Other adjustments	5.8	5.8	5.8	5.8
<b>General government expenditure</b>	<b>308.1</b>	<b>308.1</b>	<b>308.1</b>	<b>308.1</b>
General government borrowing requirement	27.8	28.8	26.3	27.2
Public corporations' market and overseas borrowing	-0.9	-0.9	-0.9	-0.9
<b>PSBR</b>	<b>26.9</b>	<b>27.8</b>	<b>25.3</b>	<b>26.2</b>

As a result of the failure of the expected cyclical recovery in VAT revenues to materialise, the Treasury's 1996 Summer Economic Forecast assumed a relatively modest response of VAT receipts to forecast consumers' expenditure growth. However, the VAT receipts collected already in 1996/97 suggest the yield will be £1.9 billion below even the SEF forecast of £46.7 billion. However, this has much to do with the relatively small collection of VAT receipts in August. On the basis of the tax yield up to July 1996, the current receipts approach would have suggested considerably higher tax revenues, as shown in Figure A.2. Our judgemental forecast for VAT receipts in 1996/97 is therefore £47 billion.

For most other Customs and Excise taxes, we take our forecasts from the current receipts forecast. With roughly 30 per cent of annual tax receipts collected by July, and a reasonable level of stability in this percentage over the last five years, this approach typically forecasts Excise taxes reasonably well.

Overall, we forecast receipts from Customs and Excise taxes to be £82.8 billion, £0.2 billion less than the SEF. This is above what would be forecast by our current receipts approach, with the discrepancy largely explained by our judgemental forecast of VAT receipts.

For all other taxes, we take the forecasts from the SEF, with the exception of National Insurance contributions, for which receipts have been relatively buoyant so far this year.

Overall, we forecast **general government receipts** for 1996/97 as £280.9 billion, £0.5 billion higher than the SEF.

Our forecast for **general government expenditure** for 1996/97 is identical to that in the SEF. Over the last couple of years, we have tended to forecast a lower level of expenditure than that in the SEF, for two reasons. First, on each occasion, inflation has been lower than forecast at the time the spending plans were made, allowing a given level of real expenditure to occur for a smaller cash amount. Second, we have forecast that the Chancellor would be able to cut expenditure further by not allocating the contingency reserve. This year, neither of these conditions appears likely to occur. The outlook for inflation seems broadly in line with that forecast by the Treasury in last November's Budget. In addition, pressures on the contingency reserve, such as those resulting from the BSE crisis, suggest most of the reserve will have to be allocated to expenditure this year. Moreover, the recent acceleration of net departmental outlays, compared with this stage of previous financial years, whilst having little real significance in itself, does suggest that the presence of spending pressures may reduce the Chancellor's scope for trimming the control total for 1996/97 further in his November Budget.

Our PSBR forecast for 1996/97 is £26.2 billion. This is £0.7 billion less than the 1996 Summer Economic Forecast and £10.1 billion higher than we forecast in last year's Green Budget. At 3.5 per cent of GDP, this fails to meet the Maastricht convergence criteria this year, and with government spending, as measured by GGE(X), at 41.3 per cent of GDP, the Chancellor has not yet met his 40 per cent of GDP target for public expenditure.

## A.4 The Public Finances in the Medium Term

Over the medium term, the PSBR will principally be affected by two sets of factors — developments in the macroeconomy and discretionary government policy decisions. In this section, we present our central forecast for the public finances over the medium term, using the macroeconomic assumptions outlined in Table A.7. These differ from those contained in the 1996 Summer Economic Forecast, with Goldman Sachs being rather more pessimistic than the Treasury for 1996/97, predicting both a lower level of growth in GDP and a poorer inflation performance for the economy.

**Table A.7: Main macroeconomic assumptions**

(% growth)	1996/97	1997/98	1998/99	1999/2000	2000/01
GDP	2.4%	3.5%	2.8%	2.8%	2.8%
Consumers' expenditure	3.2%	3.5%	3.2%	2.8%	2.3%
Corporate profits (lagged)	5.0%	5.0%	8.0%	8.0%	6.0%
Employment (lagged)	0.4%	0.4%	0.8%	0.8%	0.7%
Wages	3.9%	4.5%	4.8%	5.0%	5.0%
GDP deflator	2.5%	2.3%	2.5%	2.8%	3.0%

Under our central forecast, after a spurt of growth in 1997/98, fuelled by higher consumers' expenditure, the economy settles down to a period of above-trend growth in output stretching into the medium term, with only a very limited pick-up of inflation. This is consistent with our view that there is still an output gap of 1–3 per cent in the economy. Clearly, the further we project into the future, the larger the margin of error that needs to be attached to our forecasts.

### **Central public finances forecast**

*Central macroeconomic forecast.*

*Government sticks to the path of real expenditure implicit in the pre-announced nominal expenditure plans.*

*No discretionary tax changes.*

In our central forecast, we assume that there are no discretionary changes in the stance of fiscal policy. We assume there are no discretionary changes to taxation, so tax rates stay the same and tax allowances and specific taxes are indexed to the rate of inflation. Given these assumptions, we use the tax elasticities shown in Table A.4 and the central macroeconomic forecast shown in Table A.7 to forecast tax revenues into the medium term. Income tax receipts, which are highly sensitive to economic growth, are forecast to rise by 39 per cent between 1996/97 and 2000/01, whilst VAT revenues are forecast to rise by 24 per cent over the same period.



We assume that the control total in real terms follows the path implied by the cash spending plans set out in the November 1995 Budget. If inflation turns out lower or higher than forecast when those plans were drawn up, then we adjust government spending in cash terms accordingly. Expenditure on cyclical social security depends on forecast levels of unemployment, and payments of central government debt interest are adjusted according to the forecast path of the PSBR over time.

In our central forecast, shown in Table A.8, the PSBR falls below 3 per cent of GDP in 1997/98. Whilst the definition of government borrowing specified in the Maastricht convergence criteria is somewhat stricter than this, the UK public sector will be broadly in line with the 'excessive deficits' procedure from 1997/98 onwards, as we suggested in last year's Green Budget.

**Table A.8: Public finances in the medium term — central macroeconomic forecast**

(£ billion)	1996/97	1997/98	1998/99	1999/2000	2000/01
Income tax	69.5	74.7	81.7	88.8	96.4
Corporation tax	25.6	27.0	29.5	32.4	34.7
Value added tax	47.0	49.5	52.5	55.5	58.4
Excise duties	30.8	33.9	37.2	40.8	44.3
Other taxes and royalties	45.7	47.4	49.7	51.7	53.9
National Insurance contributions	47.2	49.1	52.0	55.1	58.4
Other receipts	15.1	17.5	18.0	18.0	18.0
<b>General government receipts</b>	<b>280.9</b>	<b>299.0</b>	<b>320.6</b>	<b>342.3</b>	<b>364.2</b>
Control total	260.2	267.5	275.6	285.4	296.2
Cyclical social security	14.3	14.1	14.6	14.4	15.1
Central government debt interest	22.2	25.1	26.6	27.3	27.3
Accounting adjustments	10.0	9.3	10.0	10.0	11.0
<b>GGE(X)</b>	<b>306.7</b>	<b>316.0</b>	<b>326.8</b>	<b>337.1</b>	<b>349.6</b>
Privatisation proceeds	-4.5	-2.0	-1.5	-1.0	-1.0
Other adjustments	5.8	6.5	6.0	6.0	6.0
<b>General government expenditure</b>	<b>308.1</b>	<b>320.5</b>	<b>331.3</b>	<b>342.1</b>	<b>354.6</b>
General government borrowing	27.2	21.5	10.7	-0.2	-9.6
Public corporation borrowing	-0.9	-0.3	0.0	0.0	0.0
<b>PSBR</b>	<b>26.2</b>	<b>21.2</b>	<b>10.7</b>	<b>-0.2</b>	<b>-9.6</b>
GGE(X) as a percentage of GDP	41.3%	40.4%	39.5%	38.6%	37.9%
PSBR as a percentage of GDP	3.5%	2.7%	1.3%	-0.0%	-1.0%

In the November 1994 Budget, the Chancellor announced that, as a target of policy, he wished to reduce the ratio of a new measure of public expenditure, GGE(X), to

below 40 per cent of GDP. This is likely to be achieved in 1998/99, one year later than seemed likely at the time of last year's Green Budget.

At the time of the Budget this November, a great deal of attention is likely to focus on forecasts of the PSBR for 1997/98, since this is the year to which any discretionary changes in taxation policy are likely to apply.

Whilst our central forecast is for a relatively modest decline in the PSBR from £26.2 billion in 1996/97 to £21.2 billion in 1997/98, the PSBR in any given year should be largely irrelevant to assessments of the overall stance of fiscal policy. The various 'rules of thumb' that are used to assess how appropriate the stance of fiscal policy is apply to the size of the government deficit when the economy is working at normal capacity. Thus, if the PSBR falls because of faster economic growth, this simply means that the period in which the economy will be working at full capacity has been brought forward — it does not allow scope for changes in the overall fiscal stance.

## **A.5 Medium-Term Projections for the Public Finances under Alternative Scenarios**

Our central forecast for the public finances depends on both our central macroeconomic forecasts, as shown in Table A.7, and the absence of any discretionary changes in the stance of fiscal policy. We argued in the main text that the overall stance of fiscal policy was broadly correct. Below, we present three alternative scenarios for the public finances: one has higher-than-planned real increases in public expenditure, one has a consumers'-expenditure- fuelled boom in the economy over the next two years, and the third has a package of discretionary cuts in taxation and public expenditure. For each of these scenarios, we examine the implications for the public finances.

### ***Medium-Term Scenario: Higher-than-Planned Public Expenditure***

Over the last few years, very tight control has been exercised over public expenditure. Under plans published in the 1995 Budget, expenditure control is set to remain very tight, with public expenditure rising less quickly than GDP. Under an alternative scenario, the Chancellor might allow some slippage in public expenditure, allowing the control total to rise by 2.25 per cent per annum from 1998/99 onwards, broadly in line with the trend rate of growth of the British economy. We assume no change in taxation policy and that developments in the macroeconomy are as in our central forecast.

#### **Higher spending scenario**

*Baseline macroeconomic forecast.*

*2.25 per cent real growth in control total from 1998/99 onwards.*

*No discretionary tax changes.*

Under this scenario, the ratio of GGE(X) to GDP falls less quickly than under our central forecast, as can be seen by comparing Tables A.8 and A.9. The ratio still continues to decline over time because our central macroeconomic forecast is for above-trend growth throughout this period.

The impact of higher expenditure is to increase the ratio of GGE(X) to GDP in the year 2000/01 from 37.9 per cent in the central forecast to 39.5 per cent, as shown in Table A.9. The government's target of GGE(X) falling below 40 per cent of GDP would not be met until 1999/2000, one year later than in the central forecast. In addition, the PSBR has still not returned to balance by 2000/01, with government borrowing £15.1 billion higher than under our central forecast.

**Table A.9: Public finances in the medium term — higher spending scenario**

(£ billion)	1996/97	1997/98	1998/99	1999/2000	2000/01
General government receipts	280.9	299.0	320.6	342.3	364.2
Control total	260.2	267.5	280.4	294.7	310.4
GGE(X)	306.7	316.0	331.6	346.7	364.7
General government expenditure	308.0	320.5	336.1	351.7	369.7
PSBR	26.2	21.2	15.5	9.4	5.5
GGE(X) as a percentage of GDP	41.3%	40.4%	40.1%	39.7%	39.5%
PSBR as a percentage of GDP	3.5%	2.7%	1.9%	1.1%	0.6%

### ***Medium-Term Scenario: A Consumer Boom***

Our second scenario for the public finances over the medium term involves a consumers'-expenditure-fuelled boom in the years 1997/98 and 1998/99. Both growth and inflation pick up during these years, presenting the government with an apparent bonanza of tax revenues compared with the central scenario.

#### **Consumer boom scenario**

*Growth faster than in the central macroeconomic forecast.*

*Government sticks to the path of real expenditure implicit in the pre-announced nominal expenditure plans.*

*No discretionary tax changes.*

Table A.10 shows the path of developments in the macroeconomy under this alternative scenario. The figures shown in bold are those that differ from our central macroeconomic forecast that was used in the other scenarios.

**Table A.10: Macroeconomic assumptions underlying the consumer boom scenario<sup>a</sup>**

(% growth)	1996/97	1997/98	1998/99
GDP	2.4%	<b>4.0%</b>	<b>4.0%</b>
Consumers' expenditure	3.2%	<b>5.0%</b>	<b>5.0%</b>
Corporate profits (lagged)	5.0%	<b>6.0%</b>	<b>10.0%</b>
Employment (lagged)	0.4%	<b>0.8%</b>	<b>0.8%</b>
Wages	3.9%	<b>4.8%</b>	<b>6.0%</b>
GDP deflator	2.5%	<b>2.7%</b>	<b>4.0%</b>

<sup>a</sup>Figures in bold differ from our central macroeconomic forecast.

**Table A.11: Public finances in the medium term — consumer boom scenario**

(£ billion)	1996/97	1997/98	1998/99
Income tax	69.5	75.5	84.0
Corporation tax	25.6	27.3	30.5
Value added tax	47.0	50.2	54.8
Excise duties	30.8	34.3	38.6
Other taxes and royalties	45.7	47.6	50.9
National Insurance contributions	47.2	49.2	52.8
Other receipts	15.1	17.6	18.0
<b>General government receipts</b>	<b>280.9</b>	<b>301.6</b>	<b>329.6</b>
Control total	260.2	268.6	280.7
Cyclical social security	14.3	13.6	14.3
Central government debt interest	22.2	25.1	26.4
Accounting adjustments	10.0	9.3	10.0
<b>GGE(X)</b>	<b>306.7</b>	<b>316.6</b>	<b>331.4</b>
Privatisation proceeds	-4.5	-2.0	-1.5
Other adjustments	5.8	6.5	6.0
<b>General government expenditure</b>	<b>308.0</b>	<b>321.1</b>	<b>335.9</b>
General government borrowing	27.1	19.5	6.3
Public corporation borrowing	-0.9	-0.3	0
<b>PSBR</b>	<b>26.2</b>	<b>19.2</b>	<b>6.3</b>
GGE(X) as a percentage of GDP	41.3%	40.4%	40.1%
PSBR as a percentage of GDP	3.5%	2.5%	0.8%

Under this scenario, shown in Table A.11, general government revenues in 1998/99 are £329.6 billion, some 2.8 per cent higher than under our central forecast, as a

result of both higher levels of economic activity and higher inflation. By contrast, general government expenditure rises by only £0.1 billion, since the impact of higher inflation is roughly balanced by lower payments of cyclical social security and debt interest. The PSBR falls more quickly than under the central scenario, with borrowing being £4.4 billion less.

The consumer boom scenario involves a rapidly declining PSBR but does not represent any change in fiscal stance. A PSBR of £6.3 billion in 1998/99 compared with £10.7 billion in our central forecast does not represent any increased scope for tax cuts. Faster growth of the economy simply means that the output gap is closing more quickly than expected, bringing forward the date at which the various 'rules-of-thumb' measures of fiscal stance, such as the golden rule, should be applied. Larger year-on-year reductions in the PSBR, which result from cyclical growth in the economy, do not imply that tax rates can be cut or that spending controls can be relaxed, if the medium-term stance of fiscal policy is broadly correct.

#### *Medium-Term Scenario: A 'Neutral' Budget in November?*

In this November's Budget, the Chancellor is likely to face considerable pressure to cut taxes in the run-up to the general election. To avoid accusations that tax cuts are being paid for by higher borrowing, the Chancellor is also likely to face considerable pressure to balance tax cuts with cuts in planned public expenditure.

Table A.12 shows how the Treasury revised its forecasts for the PSBR in 1997/98 between last November's Budget and the Summer Economic Forecast. Whilst the control total has remained relatively constant, there has been a downwards revision in revenue forecasts by over £5 billion, caused by a combination of slower economic growth and lower inflation. Our central forecast is for slightly higher revenues than forecast in the SEF, as a result of faster growth, and for control total spending to be £0.5 billion less than planned in last November's Budget because of lower inflation. Our central forecast for the PSBR in 1997/98 is £21.2 billion. Whilst this is £6.2 billion higher than forecast in last year's Budget, it does not represent any radical shift in fiscal stance but rather the impact of slower-than-anticipated economic growth.

**Table A.12: The outlook for 1997/98 — 'neutral' tax and spending cuts scenario**

(£ billion)	<i>FSBR, November 1995</i>	<i>Summer Economic Forecast 1996</i>	<i>Green Budget 1996: central forecast</i>	<i>Green Budget 1996: 'neutral' Budget scenario</i>
Control total	268	268.2	267.5	265.0
General government receipts	304	298.2	299.0	296.0
PSBR	15	23.1	21.2	21.7

Source: *Financial Statement and Budget Report 1996/97*, HMSO; Summer Economic Forecast 1996, HMSO.

Our final scenario for the public finances has the Chancellor announcing a 'neutral' Budget this November, in which tax cuts of £3 billion for 1997/98 are balanced by an equivalent reduction in expenditure. For this to occur, the Chancellor would need to

make £2.5 billion of discretionary expenditure cuts in addition to the £0.5 billion reduction in cash spending he can achieve whilst maintaining real expenditure plans intact as a result of lower inflation.

**'Neutral' tax and spending cuts scenario**

*Baseline macroeconomic forecast.*

*Discretionary cut in real expenditure of £2.5 billion in 1997/98.*

*£3 billion of tax cuts for 1997/98.*

Under this 'neutral' Budget, the PSBR would be £0.5 billion higher than our central forecast in 1997/98, rising to £1.2 billion by 2000/01, as economic growth increases the impact of cuts in income tax rates on income tax yields. This does not imply any significant change in fiscal stance.

# Appendix B. Tax Revenues Ready Reckoner

**Table B.1: Direct effects of illustrative changes in taxation, 1996/97**

(£ million)	Cost/yield (non-indexed base)	
	1997/98	1998/99
<b>Income tax</b>		
<b>Rates</b>		
Change standard rate by 1p	1,300	1,900
Change lower rate by 1p <sup>a</sup>	1,200	1,000
Change higher rate by 1p	260	600
<b>Allowances</b>		
Change personal allowance by £100	430	630
Change married couple's allowance by £100	110	160
<b>Lower-rate band</b>		
Increase lower-rate band width by 10%	230	310
<b>Basic-rate limit</b>		
Change basic-rate limit by 1%	55	110
Change basic-rate limit by 10%		
increase (cost)	490	960
decrease (yield)	630	1,200
<b>Allowances, bands and limits</b>		
Change all main allowances, lower-rate band and basic-rate limit:		
increase/decrease by 1%	290	450
increase by 10% (cost)	2,750	4,250
decrease by 10% (yield)	3,050	4,750
<b>National Insurance contributions</b>		
<b>Rates</b>		
Change main employee rate by 1p	2,000	2,350
Change highest employer rate by 1p	2,525	3,025
Change Class 2 rate by £1	85	120
Change Class 4 rate by 1p	0	220
		(continues)

<sup>a</sup>Revenue changes in the full year are lower because corporation tax changes are included in this value. Advance corporation tax changes in the first year would be offset by opposite changes to mainstream corporation tax in subsequent years.

Note: The revenue effect is computed for changes to the 1997/98 tax system and relates to the first-year (1997/98) and the full-year (1998/99) effects.

**Table B.1. Direct effects of illustrative changes in taxation, 1996/97 (continued)**

(£ million)	Cost/yield (non-indexed base)	
	1996/97	1997/98
<b>Corporation tax</b>		
Change full rate by 1%	650	850
Change smaller companies' rate by 1%	85	120
<b>Capital gains tax</b>		
Increase annual exempt amount by £500 for individuals and £250 for trusts	—	5
<b>Inheritance tax</b>		
Change inheritance tax rate by 1%	19	35
Increase inheritance tax threshold by £5,000	15	28
<b>VAT</b>		
Change VAT rate by 1%	2,655	2,785
<b>Excise duties</b>		
Beer up 1p a pint	120	125
Wine up 5p a bottle	35	40
Spirits up 25p a bottle	25	25
Cigarettes up 5p a packet	175	185
Petrol up 1p a litre	280	310
Derv up 1p a litre	140	155
VED up £5	130	130
<b>VAT</b>	<i>1996/97</i>	
Extend VAT to:	<i>effect</i>	
Food		
Passenger transport	7,550	
Construction of new homes	2,650	
Books, newspapers, etc.	2,200	
Water and sewerage services	1,200	
Children's clothing	900	
Prescriptions	800	
	750	

Note: The revenue effect is computed for changes to the 1997/98 tax system and relates to the first-year (1997/98) and the full-year (1998/99) effects.

Source: *Tax Ready Reckoner and Tax Reliefs*, HM Treasury, July 1996.



# Appendix C. Calculating Hypothetical Windfall Levy Shares

The calculations given in Section 8.5 cover two different types of tax base — pre-tax profits and excess profits — which are cumulated over two different time periods — the whole period from privatisation to the end of financial year 1994/95 and the three years 1992/93 to 1994/95 — and for two different sets of companies — a narrow group of electricity and water companies and a broader group including British Telecom and British Gas. This results in eight alternative total tax bases, and the proportions given in Table 8.3 show the share of that tax base accounted for by each sector.

## C.1 The Profits Measures

Two measures of profits based on company accounts data are used in the calculations: pre-tax profits and excess profits. Accounts data are obtained from Datastream International, and the item codes listed below refer to the specific Datastream variables used. The pre-tax profits figure is based directly on a figure reported in company accounts, i.e.

$$\text{Pre-tax profits}_{it} = DS154_{it}$$

where the subscripts  $it$  refer to profits earned by company  $i$  in time period  $t$ .

The excess profits measure allows an estimate of normal profits to be deducted from the tax base, in place of an allowance for interest payments. Normal profits are estimated by allowing a constant 10 per cent nominal return to be earned on the net book value of the firm's total assets at the end of the previous accounting period.<sup>1</sup> Hence the calculation of excess profits is given as

$$\begin{aligned} \text{Excess profits} &= \text{Pre-tax profits} + \text{Interest payments} \\ &\quad - (\text{Rate of return} \times \text{Opening net book value}) \end{aligned}$$

$$\text{Excess profits}_{it} = DS154_{it} + DS153_{it} - (0.1 \times DS391_{i,t-1})$$

This is modified slightly for the first year of each company, when normal profits are estimated using the net book value of assets at the end of the current period, rather than the previous period, due to lack of information on the opening value of the company's assets.

## C.2 The Calculations

The tax base for company  $i$  is given by:

$$\text{base}_i = \sum_{t=1}^T \text{profits}_{it}$$

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<sup>1</sup>The one exception is the nine-month accounting period reported by British Gas, covering March 1991 to December 1991. During this period, we allow a 7.5 per cent return to be earned.

where  $profits_{it}$  is one of these two alternative measures of profits. The time period covered by  $t=1,2,\dots,T$  varies according to whether all years of the company's private sector activities are included or the common period from 1992/93 to 1994/95 is used.<sup>2</sup> The total tax base across companies is then given by:

$$BASE = \sum_{i=1}^I base_i$$

where the companies included in  $i=1,2,\dots,I$  vary according to whether the narrow group or the broad group is to be included for the tax. To recap, the narrow group includes the 10 water and sewerage companies, the 12 regional electricity companies, and the electricity generators. The broad group adds British Gas and British Telecom to those companies.

The share of the tax paid by each sector is then given by summing the base across companies within each sector, and dividing by the total tax base.

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<sup>2</sup>The one exception is Northern Ireland Electricity, for which the first accounting period available is 1993/94, and the three-year period 1993/94 to 1995/96 is used.