ECONOMIC RESEARCH COUNCIL

INVESTING IN BRITAIN'S FUTURE

THE BALANCE BETWEEN CAPITAL AND CURRENT EXPENDITURE IN THE PUBLIC SECTOR

by

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Foreword

by Lord Ezra
President Economic Research Council

I am very pleased to commend this paper by Andrew Street to all who are interested in the question of public expenditure.

The specific issue to which Mr. Street addresses himself is the worsening balance between capital and current expenditure. This is a consequence of the Government's commitment to reduce public expenditure in general and its inability to contain current expenditure in particular. This has put an undue strain on capital expenditure with the result that much of what is described as the built infrastructure is suffering from lack of renovation and repair.

Mr. Street spells all this out very clearly and has identified what is one of the most serious internal problems facing this country. Those who consider, with Mr. Street, that an urgent reversal of policy is called for, contend that more capital expenditure in the public sector would provide much needed work for the construction and engineering enterprises in the private sector, would make a noticeable inroad into unemployment, and would contribute to the greater efficiency of British industry as a whole. If handled correctly there would be no adverse impact on the balance of payments or on inflation.

Mr. Street has performed a valuable service in analysing this problem in such a logical and well researched manner.

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(The source for all data is the 1985 Blue Book, unless otherwise stated.)

This paper was written by Andrew Street for the Economic Research Council

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Introduction.

The Economic Research Council commissioned this report because of its concern at the growing imbalance between capital and current expenditure in the public sector. Between 1973 and 1983 the share of capital expenditure fell from 13.3% to 7.9% of total public expenditure. Central and local government reduced its capital expenditure by 55% in real terms during this period. The whole of the decline was due to less construction expenditure. There is increasing alarm about this trend and an emerging debate about the resulting inadequacy of the nation's infrastructure.

This report argues that the Government's central economic objectives, such as low inflation and a properous private sector, will actually be assisted by an increase in public sector capital expenditure. Therefore it is the balance between current expenditure and receipts in the public sector which should be the focus of control. About half the financial deficit of central government is due to the "current account" while the much maligned local authorities have been persistently running a current surplus. The Government's attempts to reduce the Public Sector Borrowing Requirement by cutting capital expenditure, especially that by local authorities, is therefore not tackling the true problem.

We suggest that the Government should recast that part of its Medium Term Financial Strategy dealing with public expenditure and borrowing. It should attempt to balance current receipts and expenditure over the medium term but to continue to borrow to finance capital expenditure. The borrowed funds should not support an increase in the money supply, so divorcing public investment from the system of monetary control.

The amount which ought to be borrowed over the next few years in order to meet capital expenditure needs is considerable. Until a coherent public sector investment appraisal is instituted, a complete picture cannot be painted, but even the incomplete and cursory examination attempted in this report identifies £12,600 million of new investment and £14,700 million of repair and maintenance. In other words, new investment expenditure must rise by 12% each year and repair and maintenance expenditure by 25% – both in real terms – just to meet these identified needs.

Such is the scale of the task, that the new approach to public expenditure control which we recommend must be implemented without delay. The result will be a Britain which is both more efficient and a better place in which to live and work.

SECTION 1

Capital and Current Expenditure by the Public Sector: An Overview.

1.1 Capital expenditure is usually thought of as expenditure on assets which provide a benefit or return to the people who use or own them. To a firm which spends money on plant or machinery the benefit comes in the form of the profit which may be earned on the sales of the resultant output. Within the public sector things may not be so simple. Much capital expenditure within the public sector is devoted to assets which are not used by that sector, but by the general public. The benefits provided by these assets – such as roads, schools and hospitals – do not accrue to the public sector as profits but as benefits to society, which are not easy to measure in monetary terms. Society does not in general pay for these assets as it uses them. It pays indirectly through taxes, or it can lend money to the public sector to pay for the assets.

1.2 Many of the assets which the public sector provides but does not use itself may be described as infrastructure. The Institution of Civil Engineers has defined two types of infrastructure:

(a) *basic infrastructure*: the systems of services and communications including water and drainage, transportation, energy and communications;

(b) *social infrastructure*: including housing, hospitals and schools.

1.3 Infrastructure mostly consists of buildings and structures which tend to have a longer lifespan than that of industrial plant and machinery. Expenditure on infrastructure may be thought of as at the opposite end of the spectrum to current expenditure, which provides transient rather than long lasting benefits. The relatively long life of infrastructure means that periodic repair and maintenance is necessary so that maximum benfits can be provided to users. Within the public sector such expenditure is not, however, classed as capital.

1.4 An impression of the importance of infrastructure in total public expenditure can be gleaned from the data on capital expenditure on construction:

Table 1.1 The composition of public sector capital expenditure

	1984-85 (est) £ million		%
Capital expenditure on new construction			
Central and local government direct expenditure	6,952		
Public corporations' expenditure	2,130		
Grants and loans for house improvement	1,925		
Total construction expenditure		11,007	50
Other capital expenditure			
Net purchase of vehicles, plant and machinery			
– by central and local government	1,375		
– by public corporations	3,099	4,474	20
Other capital grants		1,383	6
Defence expenditure			
– construction	615		
– equipment	4,862	5,226	24
Less expenditure already included	(251)		
TOTAL CAPITAL: EXPENDITURE		22,090	100

(Source Cmnd 9428 II, tables 2.9, 2.10)

Construction accounts for 50% of total capital expenditure, vehicles plant and machinery for 20% and defence (other than that included in the previous two categories) for 24%.

1.5 The composition of the £7,000 million spent by central and local Government directly on new construction in 1984-1985 was as follows:

Table 1.2 Components of capital expenditure on new construction in 1984-1985(est)

	£ million	%
Housing	2,419	35
Other environmental services	1,048	15
Transport	1,699	24
Education, science, arts, libraries	366	5
Health and other personal social services	881	13
Other	539	8
	6,952	100

Source:Cmnd 9428

Much of the expenditure is by local rather than central government, with district councils responsible for housing and county councils for education, libraries and social services and about half of transport expenditure and of other environmental services. In all, local authorities probably spent about 60% of the new construction budget in 1984-1985.

1.6 About 90% of public corporations' capital expenditure on new construction was accounted for by nationalised industries in 1984-1985, dominated by the Water Authorities:

Table 1.3 Capital expenditure on new construction by nationalised industries in 1984-1985(est)

	£ million	%
Electricity	309	16
Gas	278	15
Railways	128	7
Coal	127	7
Water Authorities	745	39
Other	305	16
	1,892	100

Source: Cmnd 9428

1.7 The share of total capital expenditure in overall public expenditure has been declining. Similarly, the importance of the public sector in total construction spending has been waning.

Table 1.4 Capital and current expenditure by the public sector
£ billion 1980 prices

	General Government		Public Corporations	
	Current	Capital	Current	Capital
1973	86.7	11.0	27.2	6.5
1980	98.4	5.6	39.8	7.3
1981	99.5	4.1	40.0	6.7
1982	101.5	4.0	39.5	7.2
1983	102.0	4.9	39.8	7.3

1.8 Table 1.4 shows an increasing volume of current expenditure in the public sector but, in central and local government, a dramatic decline in the volume of capital expenditure from 1973 to 1982. Capital expenditure rose in 1983 (and did so in 1984) but was still less than half its 1973 level. The share of capital expenditure in total public expenditure has declined from 13.3% in 1973 to 7.9% in 1983.

1.9 The decline in the volume of capital expenditure by central and local government is entirely accounted for by new construction:

Table 1.5 General government capital expenditure
£ billion 1980 prices

	1973	1983	% change
Construction	10.3	3.9	−62
Other capital expenditure	0.7	1.0	+43
Total capital expenditure	11.0	4.9	−55

1.10 As a consequence of these cutbacks, the public sector is now a much less important source of orders for the construction industry. Whereas in 1973 it accounted for just under half of construction output, by 1983 it only accounted for just over a quarter.

Table 1.6 Construction output £ billion 1980 prices

	Private sector	Public sector	Total	Public %
1973	13.8	12.1	25.9	46.7
1980	14.5	7.4	21.9	33.8
1981	14.5	5.9	20.4	28.9
1982	16.5	6.0	22.5	26.6
1983	16.8	6.7	23.5	28.5

1.11 The civil engineering side of the industry has been particularly badly hit by the reductions in public spending on construction. When the falls in construction expenditure by central and local government are examined, it can be seen that the biggest declines have come in the national accounts definition "other new buildings and works", which encompasses civil engineering projects, rather than in housing.

Table 1.7 General Government expenditure on construction
£ billion 1980 prices

	1973	1983	% change
Dwellings	2.7	1.8	−33
Other new buildings and works	7.6	2.0	−74

1.12 Civil enginering projects mostly consist of infastructure. The result of the trends which have been described in this section has been a growing debate about whether Britain's infrastructure is being inadequately maintained and added to. Although it has been seen that public sector capital expenditure has been declining for many years, that debate has only gathered momentum in recent years for the following reasons.

(a) Since the economic downturn which started in 1979, there has been spare capacity in the construction industry – and much unemployed labour in the economy – which could be devoted to improving the infrastructure and extending it in anticipation of future economic growth. The Government has resisted this argument.

(b) The consequences of past neglect of the infrastructure have become widely felt, despite the absence of comprehensive records in the public sector of the state of existing assets.

(c) As the control of total public expenditure and borrowing has become a much more important objective of economic policy since 1979, there has been a growing realisation that the Government has no systematic means of ranking public expenditure priorities. Restraint tends to be exercised in areas where this is easiest and capital expenditure has traditionally been a victim of this approach.

(d) To compound this problem, capital expenditure has been particularly strictly controlled among local authorities, who are responsible for so much of the infrastructure. 1980 legislation imposed overall limits on gross new borrowing (called capital allocations) and limited the proportion of capital receipts which could be ploughed back into capital expenditure by English local authorities. The continuation of the policy of announcing cash limits on spending only a few months before that start of each financial year is particularly damaging to capital projects with long lead times.

1.13 This report investigates all these problems and suggests some solutions. Section 2 examines whether an increase in public sector capital expenditure would really hinder the attainment of the Government's ultimate objectives of economic policy. Section 3 argues that the cutting of capital expenditure would be easier to resist if public expenditure data were presented in a different way, with the PSBR split up into borrowing for capital and borrowing for current expenditure. Section 4 advocates a public sector investment appraisal in the form of an annual examination of the state of public sector assets and the need for investment to accommodate future developments in the economy. Section 5 looks at the (inadequate) existing evidence of the state of disrepair of the infrastructure and at indicators of the need for new investment

SECTION 2

The Reasons for Wishing to Control Public Expenditure

> ".....the need for a more vigorous and enterprising economy ...demands....a steadily falling burden of taxation, public borrowing, interest rates and inflation. A capitulation to the vague pressures for additional government spending on capital projects would put all that at risk, and much more."
>
> Rt Hon Peter Rees MP
> when Chief Secretary to the Treasury(1)

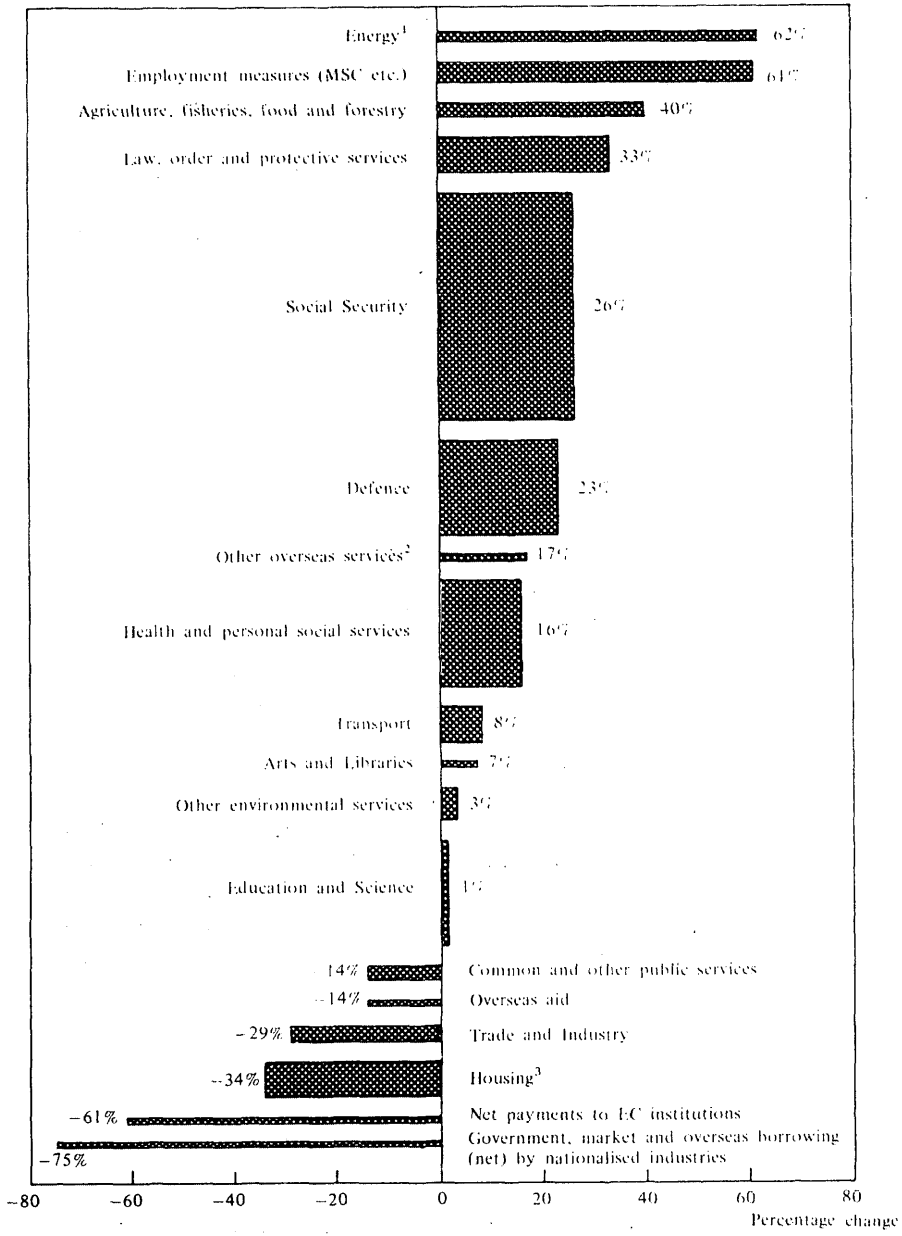
> "The Government's policy of progressively reducing the PSBR as a percentage of GDP is one that we shall continue and one by which we have secured a continuing fall in inflation and a continuing recovery."
>
> Rt Hon Nigel Lawson MP
> Chancellor of the Exchequer(2)

2.1 The decline in public sector capital expenditure which has been documented in the previous section has been of great assistance to the Government in its attempt to control total public expenditure. Since 1979, the Conservatives have faced unexpectedly strong upward pressures on budgets like social security and health and personal social services, acquiesced to a large increase in agricultural expenditure dictated by the Common Agricultural Policy and actively encouraged a major expansion in expenditure on defence and law and order. The large real increases in expenditure on such programmes are shown in the chart below. Those programmes which might have been used as a vehicle for more capital expenditure have either increased much less in real terms – for example transport and environmental services – or have declined – notably housing and nationalised industry borrowing.

(1) Speech to the National Union Industry and Trade Forum, 21st November, 1984.

(2) Hansard, column 788, 15th November, 1984.

Chart 21 Total percentage change in programmes between 1978-79 and 1983-84 (in real terms)



Source: The Next Ten Years: Public Expenditure and Taxation into the 1990s (Cmnd 9198, March 1984)

2.2 The hostile reception which the Government has given to the arguments of those who favour an increase in public sector capital expenditure can be largely explained by its struggle to contain other elements of public expenditure. It is questionable, however, whether this makes economic sense. The first ground for doubt is that control over the total of public expenditure, with only secondary concern for its composition does not lead to a sensible assessment of the relative value of public expenditure programmes. The Green Paper, published in March 1984, on long term trends in public expenditure and taxation (1) was unshamedly honest about this consequence:

> "There will be some who argue that it makes little sense to consider, still less to decide upon, public spending totals without a clear idea of the implications for individual programmes. The Government believes that such thinking has been largely responsible for the upward drift of public expenditure over many years. It is necessary to turn the argument round the other way, to decide first what can and should be afforded then to set expenditure plans for individual programmes consistently with that decision. This Green Paper is primarily concerned with this issue. It does not, accordingly, attempt to make detailed projections of individual expenditure programmes so far ahead into the future."

2.3 What this means, in effect, is that as the public expenditure programmes which are traditionally hard to control continue to grow, there will be persistent cuts in other programmes in order to contain total expenditure as far as possible to planned levels. In other words, the attitude to public expenditure control which has led to the decline of public sector investment in recent years will continue to hold sway. There will be no fundamental review of the options for seeking greater command over those programmes which have hitherto proved difficult to control and which are at the root of the problem.

2.4 The outlook for investment is not, therefore, encouraging – especially in the light of the Government's desire to hold public expenditure constant in real terms up to 1988-89, as stated in its latest Medium Term Financial Strategy. The Green Paper on long term expenditure trends suggested that this policy would have to continue up to 1993-94 since only zero public expenditure growth, given the likely range of GDP growth, would allow a significant reduction in the burden of taxation (excluding the North Sea Sector).

2.5 The future for the more vulnerable public expenditure programmes would not be so dark if it were the case that, having decided what can be afforded, the Treasury then allocated resources to different departments according to pre-determined priorities. However, the House of Commons Treasury and Civil Service Committee have discovered that

> "comparisons are made at Ministerial level between programmes in different departments to determine priorities, but the stage at which this happens varies and we do not get the impression that it is done on a comprehensive basis....Secondly, there seems to be very little discussion by the Cabinet as a whole of which priorities are appropriate within each department."(1)

The awkward political decisions about how to contain public expenditure programmes which are inherently difficult to control are not, therefore, being taken because of the lack of machinery for doing so. The same is true of expenditure heads within departmental programmes.

2.6 A closer examination of public expenditure priorities should reveal that the control of total public expenditure, rather than its composition, is not enough to secure the improved economic performance which is the end objective of the Government's policy towards public expenditure. This paper does not attempt to dispute that, under certain conditions, a reduction in the PSBR as a percentage of GDP can lead to a higher level of economic activity than would otherwise be the case. One of these conditions is that, with underutilised resources in the economy, a reduction in government expenditure which also reduces government borrowing must quickly lead to a more-than-compensating increase in private expenditure on domestically produced goods and services.

2.7 When the composition of expenditure changes is considered, it can be seen that cuts in borrowing achieved by reduced capital expenditure are unlikely to have a beneficial effect on the overall level of economic activity. This is particularly true of public expenditure on construction. Construction expenditure has a relatively low import content and the labour content of construction work, notably housebuilding, can be high. For housebuilding the import content of

(1) First Report from the Treasury and Civil Service Committee 1984-85, paragraphs 8, 9

total materials used is estimated to be 7% of total costs.(1) The import content of total U.K. domestic expenditure is much higher than these figures. It amounted to 26% in 1983.(2)

2.8 The labour content of house construction has been estimated to be 47%, of road construction 27% and of road maintenance work 34%(1). On an economy wide basis, income from employment accounted for 64% of total U.K. domestic income in 1983(3). The notion that capital expenditure is devoted to materials or machines rather than labour is not true, at least as far as construction is concerned.

2.9 Where public borrowing is reduced by cutting spending on construction – which dominates capital outlays by central and local government(4) – the impact on U.K. output is relatively high and on imports relatively low, compared to other forms of expenditure. If average import content is a meaningful guide to expenditure changes at the margin, the offsetting impact on private expenditure depends largely on whether reduced borowing enables interest rates to be lower than they would otherwise be and to what extent this stimulates additional expenditure. Even if the linkage, through interest rates and private sector expenditure, operates quite well (and this is not universally agreed) the import content of the extra expenditure – be it investment or consumers' expenditure – will undoubtedly be higher than the expenditure it replaces. This provides a prima facie case for arguing that cuts in public sector borrowing financed by reduced construction spending will lead to more imports, less home production and less employment.

2.10 The policy can also be questioned on grounds other than its effects on short run economic performance. Public sector construction activity is mostly meeting an established need which the private sector cannot adequately cater for when government withdraws from the field. The provision of infrastructure such as roads, sewers and

(1) Estimates produced by the Federation of Civil Engineering Contractors, the Royal Insti of Chartered Surveyors and the Building Materials Producers, October 1984, in " economic impact of increased public spending on construction".

(2) 1984 Blue Book, Table 1.2

(3) 1984 Blue Book, Table 1.3

(4) Construction accounted for 83% of the planned total of public capital expenditure in 19 85. See Cmnd 9143 II Tables 4.4, 4.5

water supply is an obvious example. Lower interest rates will not promote private sector investment of this type. Even in the field of housing, recent history does not encourage the view that a decline in public sector house construction will be replaced by a commensurate increase in private sector construction. During 1979-84 there has been a dramatic fall in new house construction in the public sector, but also a slight decline in private construction as the table below reveals. Although private housebuilding is interest rate sensitive, reduced public sector borrowing has been unable to ensure the necessary falls in rates, as table 2.2 shows.

2.11 This is a highly unsatisfactory state of affairs because investment in housing and infrastructure provision is vital to the U.K.'s long run economic performance. A significant economic recovery in the U.K. can only take place if prosperity is extended beyond the South and East of England to those areas formerly dependent on traditional declining industries, which have suffered worst in the recession. In these relatively deprived areas, major infrastructure upgrading is necessary and unless the public sector gives a lead in providing this, private investment will not be attracted in.

Table 2.2 Housing: Value of output at 1980 prices £ million

	New Housing			
	Public	Change	Private	Change
1979	2,214		3,205	
1980	1,711	−503	2,585	−620
1981	1,193	−518	2,457	−128
1982	981	−212	2,785	+328
1983	968	−13	3,223	+438
1984(p)	918	−50	3,131	−92
		−1,296		−74

p = provisional

2.12 This conclusion is supported by a study undertaken for the Policy Studies Institute into the infrastructure needs of three urban areas in England – in the South, the Midlands and the North East[1]. It contrasted the relative success of the more prosperous South in attracting private development finance for infrastructure and concluded that unless the public sector took a greater lead outside the South, the North–South divide could only become more pronounced. Yet this divide must be reduced if the U.K. economic recovery is to be any more than partial.

(1) Rebuilding the infrastruture. The needs of English towns and Cities. PSI. October 1984.

2.13 It would therefore appear that the Government's overriding desire to reduce the PSBR as a percentage of GDP has also reduced public sector capital expenditure on construction to a level which is damaging both to the U.K.'s short run economic prospects and to its longer run economic performance. Contrary to the Government's statements, a lower burden of public borrowing cannot be regarded as an achievement in itself. If the reduced borrowing is only at the expense of public investment which cannot easily be taken over by the private sector it is a hollow achievement indeed.

SECTION 3

A New Presentation of Public Expenditure Data

3.1 In order to reverse the trend of damaging cuts in capital expenditure, it is necessary to shift the focus of control away from public borrowing since the present system merely encourages expenditure curbs on "areas of least resistance" with little thought as to the effects on the economy. The *composition* of public expenditure should be of much more concern to the Government than it is at present. An essential first step is to present public expenditure data in a manner which would be more familiar to readers of company accounts. A distinction between capital and current expenditure is particularly important in order to attain the correct perspective on the role of public borrowing.

3.2 A company (and its bankers) has a very different attitude to borrowing which occurs in order to cover an operating loss compared to borrowing which funds a capital expenditure programme. Borrowing to cover operating losses cannot be sustained indefinitely since the lenders have no hope of seeing profits earned in order to repay their loans. Borrowing to fund investment is an entirely different proposition. A finite sum is required in order to purchase assets with an estimated rate of return which exceeds the cost of borrowing. If this were not so then the investment would not take place. The company and its creditors have a high degree of confidence that future profits will enable the interest and principal to be repaid.

3.3 The public sector has never felt obliged to present its financial situation in these terms. A linkage between capital and current expenditure and the means by which the two are financed does not exist. Decisions about public expenditure levels and about revenue (taxation and borrowing) are not taken in conjunction. The separation of these two decision making processes has been the subject of much criticism[1]. Even if they were to be linked, however, it is not apparent that the means by which capital and current expenditure were financed would be distinguished.

(1) See for example, various reports from the House of Commons Treasury and Civil Service Committee.

3.4 Governments, unlike companies, have not felt the need to examine the balance between current expenditure and non-borrowed sources of funds for a variety of reasons. Probably the most important reason is that a government does not face the same type of borrowing constraint as a company. Its ability to raise taxation means that lenders regard govenment debt as almost free of the risk of default. A government's concern for the balance between expenditure and revenue does not arise from a fear that it may be unable to borrow to fill the gap in between the two, but rather from its fears about the consequences of such borrowing for the rest of the economy. To the extent that a government cannot borrow from outside the banking system, it can in any case simply create money to pay for its expenditure.

3.5 The role of the public sector in the economy has also discouraged the presentation of company-style accounts. Much public expenditure consists of transfer payments from one section of the community to the other, e.g. unemployment benefit, or of the provision of services for which no direct charge is made, e.g. defence and law and order. With these types of expenditure, the State is not spending money on its own account but on behalf of society as a whole. Therefore, the concept of operating surpluses or losses, derived from an attempt to match revenues with expenditure, has not been considered an appropriate measure of performance.

3.6 With regard to many transfer payments it would be possible to match expenditure with sources of revenue by moving to the insurance principle of funding. Indeed a wide variety of payments are made from the National Insurance Fund to which both employers and employees contribute. However, the insurance principle of the Fund breaks down on two counts. Not all the payments made from it are related to the scale of contributions (from earnings). Secondly, the Fund is financed on a pay-as-you-go basis so that retirement pensions are funded by current contributions and not the past contributions of those who are drawing pensions.

3.7 Even given the pay-as-you-go basis of the Fund, the benefits paid out of it could be determined by the scale of contributions going into it and vice versa. Successive governments have chosen not to do this. Thus the Fund's income is swelled by central government grants but reduced by the diversion of employers' contributions, which are nothing more than a payroll tax.

3.8 With respect to the provision of services, as opposed to making transfer payments, the problems of linking revenue with expenditure are more intractable. Many of the services provide social benefits which cannot be measured easily, if at all, in monetary terms. The basis of payment would be difficult to determine, while payment might be witheld by those who considered that their subjective valuation of the benefit was less than the cost of provision.

3.9 In the case of services whose benefits accrue more directly to the users, formidable problems remain, even where users of the service are charged. Take the provision of road infrastructure. Government revenue from motoring is a form of sumptuary taxation, whose value far exceeds the public expenditure occasioned by vehicle ownership and use. In 1985-86 it is estimated by the Department of Transport that revenue will be 2.7 times greater than expenditure[1], providing a surplus of £5,900 million. Many other sources of tax revenue, such as duties on alcohol and tobacco cannot be linked so directly with public expenditure.

3.10 So great are the obstacles involved, it would make little sense to break down aspects of government activities, in a company accounting sense, into profit centres. The analogue with company accounts cannot be taken too far. Government decisions about where to spend money should not always be constrained by revenue sources but by policy priorities. Likewise, when deciding on the size of different sources of tax revenue, a government should be concerned with the specific impact of the taxes and not with what they will finance. On the economic front, government spending and tax decisions have sectoral effects which have to be considered, while the balance between total expenditure and revenue is also a matter for macroeconomic policy.

3.11 However, as was discussed in section 2, the economic consequences of the shift in the composition of public expenditure away from capital items should be a matter of concern to the Government. Something should be done to reverse it. The most effective remedy would be for the Government to consider separately the financing of current and capital expenditure, just as a company does. Instead of focusing on total expenditure and total non-borrowed sources of finance – and of course the difference between these two magnitudes, the

(1) Taxation Revenue and Public Road Costs, 1985-86 – United Kingdom (Department of Transport)

Public Sector Borrowing Requirement – the Government should concentrate on the current balance, that is the relationship between current expenditure and current receipts. Current receipts may be defined as all non-borrowed funds other than capital receipts.

3.12 The primary objective of the Government's financial strategy should be to restrain current expenditure as far as possible to the available total of current receipts over the medium term. This policy objective may be likened to the desire of a prudent company not to have to finance operating losses by bank borrowing for any sustained period. The Government's capital expenditure should be financed from capital taxes and capital receipts from the sale of assets or by borrowing. Of course a company does not face such a constraint on its methods of financing investment programmes. It is free to undertake investment expenditure from internally generated funds. Because the central government is not generating investment finance by running a surplus of current revenue over expenditure, this option is not open.

3.13 The financial position of the three constituent parts of the public sector – for central government, local authorities and public corporations – is examined in tables 3.1 – 3.2 below. These take the form of an income-expenditure statement and form the basis of what a reformed Medium Term Financial Strategy should look like.

3.14 Table 3.1 shows central government's financial balance. There has been a persistent current deficit since 1975 which has tended to grow in nominal terms over the period to 1983. The overall financial deficit has not grown as rapidly because of the restraint on capital expenditure which was discussed in section 1. Apart from 1978, 1982 and 1983 the volume of capital expenditure fell throughout the period. At its 1981 low point, it was only 69% of its 1973 volume. The period 1979-83 covers almost two complete economic cycles. During the first recession phase, in 1975 and 1976, capital spending held up well under the Labour Government, despite the growth of the current deficit. The major cut in capital spending came in 1977 as a response to the 1976 sterling crisis and IMF loan conditions which demanded a rapid reduction in public expenditure and borrowing. The reflation prior to the 1979 election concentrated more on current spending than on capital spending. The Conservative Government reacted very differently to its predecessor when the economy entered a recession once more in 1980 and 1981. The

deterioration in the current deficit was not allowed to be anything like as severe as 1975-76, while capital spending was not held steady as before, but cut back considerably. 1978 and 1983 are similar years in that a deterioration in the current deficit and an increase in capital expenditure were allowed, despite an upswing in economic activity.

Table 3.1 Central Government £ million 1980 prices

	Current Balance	Capital Expenditure	Financial Surplus (+)/ Deficit (−)
1973	5,446	5,446	20
1974	4,327	5,325	−997
1975	−1,430	4,974	−4,817
1976	−4,057	4,925	−7,575
1977	−1,538	4,348	−4,267
1978	−4,219	4,647	−7,752
1979	−2,414	4,158	−5,406
1980	−3,063	4,113	−6,055
1981	−4,519	3,781	−7,032
1982	−3,202	4,125	−6,110
1983	−4,055	4,616	−7,473

3.15 When the current balance, capital expenditure and overall balance, in real terms, of local authorities are examined, a complete contrast to central government emerges. Table 3.2 reveals this. Local authorities have consistently run a surplus during the years 1973-83, rather than a deficit. Given that local authority current expenditure cannot be used very effectively as an economic regulator – it has to be financed directly (via rates) or indirectly (via central government grants) from taxation – it is not too surprising that changes in the local authority current balance have not mirrored those of central government. Thus local authorities moved into increasing surplus in 1976 when central government's deficit increased; this was repeated in 1981 and 1983.

Table 3.2 Local Authorities £ million 1980 prices

	Current Balance	Capital Expenditure	Financial Surplus (+)/ Deficit (−)
1973	2,297	8,883	−5,883
1974	1,464	9,211	−7,165
1975	2,546	7,717	−4,821
1976	3,691	7,274	−3,300
1977	2,730	5,665	−2,677
1978	2,226	4,901	−2,316
1979	1,801	4,599	−2,412
1980	1,221	4,095	−2,498
1981	2,485	2,806	30
1982	2,846	2,513	686
1983	2,060	3,143	−749

3.16 The reduction in local authority capital expenditure over the period has been most marked. As with central government, the low point was reached in 1981, but by then, the volume of local authority capital spending was a mere 28% of its 1973 value. The equivalent for central government was 69%, as we have seen. The vital point to note is that this reduction in local authority capital expenditure was *not* an attempt to offset a growing current deficit, as was the case with central government. Local authorities' current balance stayed roughly constant in real terms and so the result of the declining volume of capital expenditure was a shift from an overall financial deficit to a financial surplus by 1981.

3.17 As was seen in Section 1, central government has controlled local authority capital spending much more effectively than current spending – at least until targets, penalties and ratecapping were introduced in the 1980's. The fall in the volume of capital spending was therefore inspired from the centre and can be seen as an attempt to offset the effects on the overall public sector financial balance of central government's inability to control its own current deficit. Given that a high proportion of local authority current revenue consists of central government grants, it could have been the case that the roughly constant local authority current balance was achieved only through increasing central government subsidy. In this instance, offsetting cuts in local capital spending might have been justified. However, table 3.3 shows that since 1976 the central government contribution to local authorities' current revenue has

been declining rather than increasing.

Table 3.3 Contributions to local authorities' current receipts

	Central government grants %	Rates %	Other %
1973	49	32	19
1974	48	31	21
1975	54	28	18
1976	55	27	18
1977	52	29	19
1978	52	30	18
1979	51	30	19
1980	50	31	19
1981	49	34	17
1982	48	36	16
1983	51	34	15

3.18 The financial balance of the public corporations as shown in table 3.4 requires caution in its interpretation due to changes in the composition of the sector, particularly due to the privatisation policy pursued since 1979[1]. Despite the changes in its composition, the sector has consistently run a current surplus. With the addition of capital receipts, rent and other income, this has generally covered capital expenditure; a financial deficit has only been run because of interest and dividend payments, particularly to central government.

3.19 As table 3.4 shows, this financial deficit of public corporations has been considerably reduced during the years 1981, 1982 and 1983. Unlike central and local government, the downward trend in the volume of capital expenditure has been limited, especially when one considers the loss of corporations to the private sector in the period. An improvement in the current balance – partly through retrenchment, partly through better economic conditions – has been the most important influence on the overall financial balance. Of course, central government is still providing much financial support for certain public corporations.

(1) The following corporations have been returned to the private sector: Associated British Ports (February 1983), British Aerospace (February 1981), Cable and Wireless Ltd (October 1981), National Freight Company (February 1982).

Table 3.4 Public corporations £ millions 1980 prices

	Current Balance	Capital Expenditure	Financial Surplus (+)/ Deficit (−)
1973	5,936	6,402	−2,311
1974	5,992	7,992	−3,931
1975	5,719	9,488	−5,594
1976	7,557	9,484	−3,858
1977	7,619	7,768	−2,009
1978	7,377	7,214	−1,321
1979	6,335	7,516	−2,558
1980	6,114	7,301	−2,600
1981	6,834	6,559	−1,101
1982	7,758	6,780	−1,035
1983	7,935	6,784	−401

3.20 Public corporations do not in general seem to take the view that their improved financial performance has been won at the expense of failing to undertake worthwhile investment projects. This does not mean, however, that the system for assessing and financing the investment programmes of public corporations does not need reform, as will be discussed in the following sections.

SECTION 4

A New Medium Term Financial Strategy

4.1 Having examined the accounts of the three constituent parts of the public sector in terms of their current balance, capital expenditure and overall financial balance, it is now possible to recast the relevant parts of the Government's Medium Term Financial Strategy (MTFS) in a similar mould.

4.2 The MTFS, according to the 1985 Red Book[1] "has provided the financial framework for economic policy since 1980. It is designed to achieve falling inflation, with the ultimate objective of stable prices, through a progressive decline in monetary growth supporting by lower public sector borrowing." The four year projections for public sector borrowing consist of just one series – for the borrowing requirement of the whole public sector – which is shown as the difference between general government[2] expenditure and receipts, with the addition of public corporations' borrowing from outside the public sector. No targets are set for the current and capital components of public expenditure, either for the whole public sector or for its three constituent parts. Nothing of interest is therefore said about what the targeted public sector borrowing is intended to finance.

4.3 As the previous sections explained, there is a crucial difference between borrowing to finance an imbalance between current revenue and expenditure and borrowing to finance investment. The MTFS should therefore distinguish between the two. It has already been suggested that one objective of the strategy should be to balance current revenue and expenditure over the medium term. A separate target must therefore be constructed for borrowing designed to finance capital expenditure. It should not be the Government's objective to gradually eliminate borrowing for investment.

The target for this type of borrowing should be primarily determined by the level of capital expenditure which is deemed to be necessary. This in turn requires a medium term investment programme to be drawn up, based on a regular appaisal of investment opportunities

(1) Financial Statement and Budget Report 1985-86; H.M. Treasury, March 1985

(2) Central and local government combined

across the public sector. (The investment programme and appraisal will be discussed in Section 5). The planned level of capital expenditure will not have to be financed entirely by public borrowing in those years when a current surplus is achieved: but it is assumed that current surpluses cannot be a consistent source of funds for investment since one objective of policy is to place the current account in approximate balance.

4.4 The main determinant of shifts of the current account between deficits and surpluses will be the economic cycle. The Government's objective should be to roughly balance current expenditure and revenue over the cycle, not necessarily over the timespan of any year's MTFS review if this is not likely to cover a cycle. This may be regarded as a variant of the notion that the Public Sector Borrowing Requirement should be measured with an adjustment according to the stage of the economic cycle. It is the responsibility of the Government to determine when a growing imbalance between current revenue and expenditure is structural, i.e. due to more than the cycle. It must then take the necessary corrective action – by either reducing expenditure or raising taxes in the case of a growing structural deficit, for example. In this instance, either cutting capital expenditure below the level suggested by the investment appraisal, or increasing borrowing to finance the structural current deficit would not be a permissible option.

4.5 The present thinking behind the MTFS is that a lower Public Sector Borrowing Requirement lowers the rate of monetary growth for a given level of sales of government debt. Under the new MTFS suggested here, the reduction or elimination of the Public Sector Borrowing Requirement could not be used as a means of restraining monetary growth – the reason being that this would lead directly to a cut in capital expenditure. It does not make economic sense to use capital expenditure cuts as a method of monetary control. Indeed one of the virtues of the proposed reforms is that this absurdity becomes clearer – under the present system, successive governments have in fact fallen victim to it, although the policy has never been presented in these terms.

4.6 Under the new MTFS there would be a severing of the linkage between the borrowing requirement for capital expenditure and the money supply. By definition, if monetary growth exceeded its target this must have been caused by some other factor – say bank lending

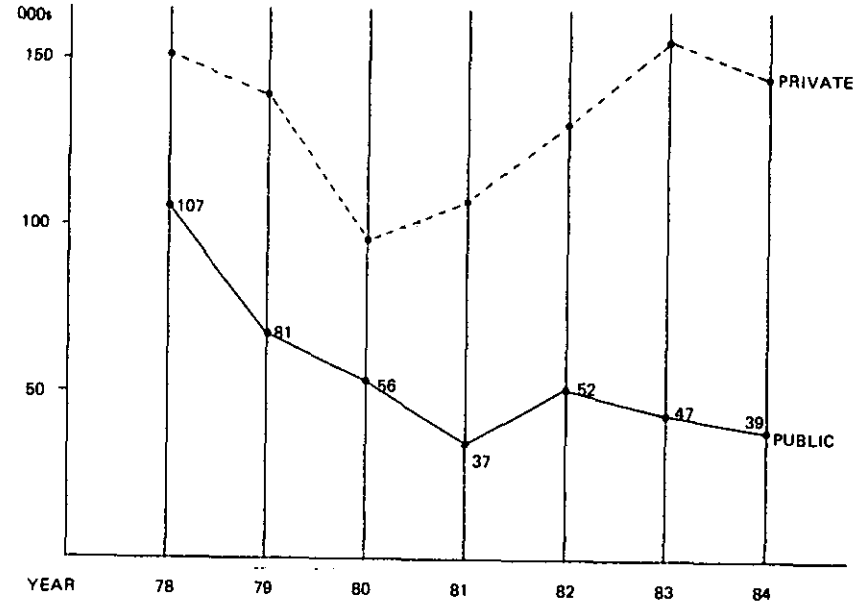
– provided all public borrowing for investment purposes were undertaken outside the banking system. Apart from the level of expenditure deemed necessary by the public sector investment appraisal, a second constraint on investment would therefore be the volume of debt which could be sold to finance it without unduly forcing up interest rates.

4.7 The sale of public sector debt to finance capital expenditure could still facilitate monetary expansion, however, if the debt were used by banks as reserves. In order to prevent this, all public sector debt issued to finance capital expenditure must be rendered ineligible as bank reserves and so clearly differentiated from debt issued to finance current deficits. The Government would now have a double incentive to control current deficits since these deficits, if funded by borrowing from the banks, would directly increase the money supply – and if funded by issuing debt outside the banks but eligible for use as bank reserves could indirectly increase the money supply.

4.8 Capital expenditure in the public sector could only be financed by internally generated funds or by borrowing from outside the banking system. A private company can of course fund capital expenditure by bank borrowing but it does not have to worry about the consequences of its action on the money supply. The public sector does have this concern but this complicating factor should be removed. In setting its investment programme for the public sector, the Government should only be concerned with the range of its investment opportunities and the competition in the capital markets for funds if it has to borrow.

4.9 Both central and local government will indeed have to borrow in order to invest, given their present financial circumstances. Capital receipts and taxes would, under the system proposed here, only be available to finance capital expenditure. Thus when the Government sells public corporations to the private sector, the proceeds could only be reinvested in other assets. Under the present confused system of public accounts, these proceeds need not be reinvested. Local authority capital receipts – swollen in recent years by the sale of council houses – have either been used to build up cash balances or to reduce other borrowing. They have not led to the building of more houses. Figure 4.1.shows how public sector housing starts have declined and then stagnated during the period of council house sales.

Figure 4.1 HOUSEBUILDING STARTS – GB (000s)



4.10 Local authorities do distinguish sources of funds for capital and current expenditure, but their ability to earmark capital receipts for capital expenditure has been limited by central government directives. Within central government itself,because there is no separate accounting treatment of funds destined for capital and current expenditure, receipts from the sale of public corporations and other assets have merely counted as "negative public expenditure"; so, by accounting sleight of hand, these sums have been said to reduce the Public Sector Borrowing Requirement(1). In the reformed presentation of the Medium Term Financial Strategy outlined above, these special asset sales would be treated as revenue which is available to finance capital expenditure, and not as negative expenditure. Local authorities would be free to reinvest their capital receipts as they wished.

4.11 The role which revenue from special asset sales might have had –and could still have – in increasing capital expenditure is shown in Table 4.1.

(1) As at 3lst December 1983. This figure counts certain classes of corporations such a Passenger Transport Executives as one unit. It omits the National Girobank, which h external financing limits

Table 4.1

£ million 1983-84 prices	1982-83	1983-84	1984-85	Planned 1985-86	1986-87	1987-88
Capital expenditure by central and local government*	11,900	12,700	13,600	13,500	14,000	14,300
Special sales of assets	500	1,100	1,900	2,300	2,000	1,900
Asset sales as % of capital expenditure	4.2	8.7	14.9	17.0	14.3	13.3

* including defence expenditure; Source: Cmnd 9428, January 1985

Since the revenue from special asset sales is derived from returning nationalised industries back to the private sector, some of the revenue could also be used to fund investment by those industries still in the public sector.

4.12 Having set out the principal ground rules for the new Medium Term Financial Strategy for public expenditure, revenue and borrowing, it is now instructive to see how the trends of recent years can be fitted in to it. This is done in tables 4.2 and 4.3 by adapting the data given in Section 3. The present strategy seems to have been a qualified success because of the gradual reduction of the public sector borrowing requirement both in nominal terms and as a percentage of GDP. Under the new strategy things would not have looked quite so good. The failure of central government to reduce its current deficit would have been noticeable, as would the growing current surplus of local government. A declining borrowing requirement for capital expenditure, when allowance is made for inflation, would not have been seen as cause for self-congratulation. Given that capital receipts were roughly constant in real terms, it would have raised doubts about the adequacy of the volume of capital expenditure.

Table 4.2 General government borrowing requirement for capital and current expenditure

£ million	1980	1981	1982	1983
Current Balances				
Central government	−3,063	−5,048	−3,830	−5,073
Local government	1,221	2,776	3,404	2,589
General government	−1,842	−2,272	−426	−2,484
Capital Receipts & Taxes				
Central government	1,121	1,416	1,456	1,482
Local government	376	391	423	421
General government	1,497	1,807	1,879	1,903
Capital Expenditure				
Central government	4,113	4,223	4,933	5,802
Local government	4,095	3,134	3,006	3,951
General government	8,208	7,357	7,939	9,753
General government borrowing requirement for:				
capital expenditure	6,711	5,550	6,060	7,850
current expenditure	1,842	2,272	426	2,484
At 1980 prices, £ million				
General government borrowing requirement for:				
capital expenditure	6,711	4,969	5,067	6,425
current expenditure	1,842	2,034	356	1,976

Table 4.3 Public corporations' borrowing requirement for capital expenditure

	1980	1981	1982	1983
Current balance	6,114	7,6634	9,278	9,9974
Stock appreciation	427	591	390	197
Non-trading income and foreign income	622	832	954	1,054
Total income	7,163	9,057	10,622	11,225
Distributions	3,021	3,580	4,335	3,928
Undistributed income	4,142	5,477	6,8287	7,297
Capital receipts	559	619	584	726
Capital expenditure	7,301	7,326	8,109	8,528
Borrowing requirement for capital expenditure	2,600	1,230	1,238	505
At 1980 prices	2,600	1,101	1,035	402

4.13 The new approach as applied to public corporations' performance during 1980-83 is less illuminating until more is said about how the corporations are allowed to raise external finance. Only 19 out of some 51 public corporations[1] are subject to external financing limits (EFLs)[2]. However, these corporations (more commonly known as nationalised industries) are responsible for approximately 80% of the capital expendiure undertaken by public corporations as a whole. They include almost all the major providers of infrastructure apart from the Passenger Transport Executives, the Urban Development Corporations, the New Town Development Corporations[3], the Housing Corporation and the Scottish and Welsh Development Agencies.

(1) External financing limits (EFLs) include government and other grants, leasing and the corporations' borrowing requirement for capital expenditure

(2) Now being wound up

(3) Hence the government's policy of favouring high increase charges by public corporations in relation to inflation

4.14 An overall EFL in cash terms is announced each year on a three year rolling basis for the 19 public corporations. EFLs for individual corporations are only announced one year ahead, in the Autumn economic statement, i.e. some four months before the start of the financial year. Apart from internally generated funds, these public corporations have no access to finance for investment other than that controlled by the EFL. The EFL is the only nationalised industry contribution to the public expenditure planning total. This strange accounting convention means that public expenditure control has to focus on funds for capital expenditure only. Thus an increase in these public corporations' current expenditure – say by taking on more labour – does not count as an increase in public expenditure and will have no impact on the planning total unless it reduces internal funds for investment.

4.15 The latest public expenditure white paper (Cmnd 94228) sets further, more dramatic reductions in external financing, such that the total EFL becomes negative in 1987-88. In other words, cuts in the volume of capital expenditure and increases in the real value of internal funds[1] will lead to net repayments of debt to the Government and other creditors.

4.16 Under the new strategy being proposed, public corporations would be free to borrow as they wished in order to finance the levels of capital expenditure which had been agreed between the Government and themselves as part of the public sector investment appraisal. Any borrowing from the Government, as opposed to the domestic or overseas capital markets, would be financed by issuing the same type of bonds with which the Government financed capital expenditure elsewhere in the public sector. These bonds would not count as bank reserves eligible to support expansion of the money supply

4.17 In order to free investment decisions from undue government interference and encourage the application of commercial criteria whenever possible, the policy of transferring corporations to the private sector is the correct one. However, privatisation cannot solve the problem completely. Many important corporations cannot be privatised, with the exception of some of their periperal activities,

(1) The Committee's first report of the 1984-85 parliamentary session stated (paragraph 14): "we recommend a re-appraisal of the machinery for determining public expenditure priorities.....with particular reference to the need to improve the allocation across departments."

due to their lack of profitability in the forseeable future. The public sector investment appraisal must concentrate on these corporations.

SECTION 5

A Public Sector Investment Appraisal

5.1 The purpose of a public sector investment appraisal would be to redress the present imbalance whereby capital expenditure decisions in the public sector are influenced more by the desire to reduce total expenditure and borrowing than by the need for investment. An investment appraisal would allow investment needs to be given higher priority in the public expenditure planning process. When coupled with the new Medium Term Financial Strategy which sets distinct targets for borrowing for capital purposes and with the issuing of capital bonds which cannot support monetary expansion, the stage would be set for an expansion of investment.

5.2 However, the annual expenditure level would depend on the projects which were justified by the investment appraisal. The declining volume of capital expenditure by central and local government proides a prima facie case that insufficient is now being spent: the appraisal would have to prove it.

5.3 A further advantage of one single, coherent investment appraisal is that different areas of public sector capital expenditure should receive as compatible an assessment as possible in order to aid the efficient distribution of scarce resources. Although individual central government departments apply criteria to investment projects which employ common features – such as the test discount rate – there are still great differences in assessment methods, even within departments – and between central and local government.

5.4 As was discussed in paragraph 2.5, another disadvantage of the present system of determining capital (and current) expenditure levels is the lack of a strategic overview. New expenditure levels are determined at the margin, the base being existing levels of expenditure. Decisions to make large switches of expenditure are difficult to make, and even when great determination is shown, can take several years to achieve. An investment appraisal could therefore usefully accompany the changes in the public expenditure planning process recommended by the Treasury and Civil Committee[1].

(1) For a critique of this method of treating asset sales see The Treasury and Civil Service Committee's reports on the 1984 public expenditure White Paper and the 1984 Budget.

5.5 The public sector investment appraisal must be made on the basis of a coherent definition of what constitutes capital expenditure. Successive public expenditure white papers have attempted to give better information, culminating in the 1985 white paper, Cmnd 9428 [1]. The primary object of these improvements has been to specify expenditure of a capital nature which does not appear in the planning total. Thus, public sector capital spending is now defined to include capital expenditure on goods and services by public corporations but excludes the external finance of the corporations, which is not the only source of funds for capital expenditure but is the only one included in the planning total.

5.6 Capital expenditure is generally considered to be expenditure on assets which have a reasonably long lifespan and which contribute to the production of wealth by providing user/owner benefits. This definition presents particular problems for the public sector.

(a) Because infrastructure often has a long life, much of its repair and maintenance amounts to renewal (e.g. the reconstruction of a motorway) and should count as capital spending. Unfortunately not all of this renewal is included in the expenditure white paper's definition of "capital expenditure on construction". Much expenditure on repair and maintenance [2] "cannot be precisely identified within the current spending element of the planning total"[3] of public expenditure. Since it is estimated[3] that in 1983 the public sector spent around £6,000 million (or 5% of the planning total) on repair and maintenance, this element is too important to ignore. Such expenditure must be identified and included in the scope of the investment appraisal.

(b) Capital expenditure by public corporations is easier to define than infrastructure expenditure, but in any appraisal, distinction must be made between those corporations which can be privatised and those which cannot. For the former, commercial rate of return calculations must be the decisive factor. For the latter, which by definition are not making adequate returns on much of their asset base, the criteria have to be wider. Some investment projects can be appraised on a commercial rate of return basis even when losses are being incurred in many mainstream operations. For example, British Rail has had to justify its East Coast Line electrification proposals in this way. Elsewhere, this is not possible and the investment must be thought of as akin to infrastructure expenditure in that there are wider returns to the investment than those which can be recouped through user charges.

(1) See especially table 2.9

(2) House improvements for example

(3) Cmnd 9428 paragraph 17, volume II

5.7 The infrastructure element of the appraisal would have to investigate the following:

(a) Housing
(b) National Health Service Buildings
(c) School buildings
(d) Water supply and sewerage
(e) Roads
(f) Derelict land.

The following is a brief description of these main elements of infrastructure. Much of the discussion concentrates on indicators of maintenance need rather than the need for new assets. This merely reflects the lack of information about the latter and the fact that information about maintenance needs is emerging from an on-going study being conducted under the auspices of the National Economic Development Council.

Housing

5.8 The best available range of idicators of housing investment need from the supply side are provided by the English House condition Survey. This survey is conducted every five years, the next one being planned for 1986. It is useful as a gauge of the amount of repair and maintenance expenditure that is required. The 1981 Survey gave evidence of some deterioration in the stock of dwellings (see Table 5.1) during the period since the 1976 Survey.

Table 5.1 Results of the English House Condition Survey

	1981 Survey	1976 Survey
Number of dwellings (million)		
Lacking basic amenities	0.9	1.5
Needing repairs over £7,000	1.1	0.9
Need repairs of £2,500 or more	4.3	
Fit	16.1	14.9
Unfit	1.1	1.1
Total Stock	18.1	17.1

The number of dwellings needing substantial repairs (defined to be in excess of £7,000) increased by 200,000 or 22%. There was no reduction in the number of dwellings classed as unfit. Merely to repair those dwellings in need of substantial work (assuming the cost for each was not much in excess of £7,000) would cost almost £8 billion.

5.9 In general, the 1981 Survey found public sector housing in a better condition than housing in the private sector.

Table 5.2 1981 English House Condition Survey

% of total stock	Private	Public
Lacking basic ameneties	6%	3%
Needing repairs over £7,000	8%	1%
Needing repairs of £2,500 or more	32%	2%
Fit	91%	84%
Unfit	8%	1%
Total stock (millions)	13.1	5.0

5.10 However, the English House Condition Survey is not well equipped to assess defects in public sector housing, due to the extensive use of non-traditional construction methods in the public sector since the Second World War. Structural problems with these buildings are constantly emerging and need separate, detailed investigation. Another weakness in the Survey is that while it might assess dwellings as structurally "fit" they might be socially "unfit". Examples include multi-storey blocks in inner cities.

5.11 The Department of the Environment, in a submission to NEDC, has estimated that £10,000 million would be required to bring the public sector housing stock up to acceptable modern standards.(1)

National Health Service Buildings

5.12 No comprehensive condition survey of NHS properties is carried out. When NEDO staff investigated NHS buildings in 1984, it was estimated that £2,000 million of remedial work and maintenance needed to be done. A 1972 survey showed that the age profile of NHS floorspace was as follows:

Pre 1918 – 51%
1918-1948 – 24%
1948 onwards – 25%

New hospitals can lead to the need for increased rather than reduced maintenance expenditure because of their greater complexity compared to the stock they replace. The use of non-traditional building methods during a major expansion of hospital building in the 1960s and 1970s may, as in housing, be leading to the need for a major rehabilitation programme(2).

5.13 NEDO investigators found that the NHS was looking at its backlog of disrepair and that major initiatives were being taken at local level to determine what the problems are. These have now suggested a backlog of work worth £1,700 million. This may lead to an increase in the tiny proportion of the NHS budget devoted to maintenance of buildings and equipment. (In 1981-82 only £85 million was spent on this from the £11,000 million budget).

(1) See Financial Times 9.7.85

(2) An extreme case is the Royal Devon and Exeter Hospital, which may have to be demolished much earlier than planned.

School Buildings

5.14 The standard of school buildings is set by the Department of Education and Science (DES) but responsibility for new building and for repair and maitenance lies with county councils. This leads to a confusion over who is really responsible for standards. For example, the DES has set new standards which it would like to be attained by 1991 but councils claim not to have sufficient money to make the necessary investment

5.15 Appraisal of the condition of schools is the responsibility of Her Majesty's School Inspectors. However, their work is not sufficiently detailed. NEDO investigators found it impossible to quantify how much money was needed to eliminate the worst defects of the stock of school buildings or the permanent resources necessary for an adequate maintenance programme. There appears to be no doubt, however that standards are declining and are affecting educational performance. In a 1984 report, School Inspectors said that poor or unsuitable accommodation was considered to be adversely affecting the performance of just over a quarter of schools visited. These comments have been echoed by Sir Keith Joseph, the Secretary of State for Education.(1)

5.16 As in the case of public sector housing and of hospitals, the use of non-traditional construction methods during a major building phase in the 1960s and 1970s has given rise to many of today's maintenance problems. NEDO found that school buildings erected since World War II were often in a worse state than Victorian ones and were more expensive to maintain and heat. 72% of all secondary places are provided in post 1946 buildings.

Water Supply and Sewerage

5.17 Water supply is provided by the regional Water Authorities, which are public corporations subject to External Financing Limits (EFLs). NEDO investigators found that while Water Authorities run a crisis management system to repair major leaks, a backlog of disrepair and neglect has built up such that crisis management cannot prevent future growth of collapse rates.

(1) The Financial Times 9/7/85

5.18 The future problems are not merely due to non-replacement of pipes, but also to the type of replacement pipe which has been used. Four-fifths of English water mains are of iron. The newer pipes have thinner walls which have similar strength to older pipes with thicker walls. However, in corrosive conditions it is the thickness of the wall which is vital. The Water Research Council believes it possible that, without remedial action, half of the entire length of iron pipes could fail within 20 years. According to the Council a policy of extensive renovation would cost £3,600 million.

5.19 In recent years the Water Authorities' required rate of return has been increased while EFLs have been reduced. This has obliged Authorities to raise water rates higher than they wished, yet the money has not been put into capital expenditure programmes. Thames Water, the most profitable of the Authorities has been especially vigorous in its resistance to this policy. One solution to the problem is to privatise the Authorities so that water charges and external finance can be determined on more objective criteria. The Government does indeed intend to privatise Thames Water. Other Authorities may not be so attractive to private investors, especially when their future capital expenditure needs are more precisely determined, and so they will have to come within the scope of the public sector investment appraisal.

5.20 Little can be said of the scale of the removal, repair and maintenance needs of sewerage systems. At least 15% of the stock is estimated to be over 100 years old. Many district councils do not have compete records of the network for which they are responsible. Creating an adequate record would be a major first priority for the public sector investment appraisal.

Roads

5.21 The need for new roads is determined by the future growth of traffic which is forecast and the amount of unacceptable congestion on existing roads, especially in urban areas, but also in towns and villages which can be by-passed. The Department of Transport forecasts a national growth of traffic of 23-49% between today and the end of the century. Assuming growth in the centre of this range, the British Road Federation has estimated that £20,000 million of road schemes need to be constructed over a ten-year period. Existing road building plans of central government and local authorities

amount to some £12,000 million, so an increase of one third in the investment rate is required (assuming that present plans could be executed in 10 years).

5.22 Central government produces periodic road construction plans for the trunk road network which it controls (4% of the total road network). However these plans are not designed to cope with demand as measured by forecast traffic growth over a given period. Many new trunk roads are not opened until years after their originally planned completion date.

5.23 The bulk of the road network is the responsibility of local authorities. Local road construction plans are even more severely cash constrained than central government ones, due to the repressive controls exercised over local authority capital expenditure. Forward planning is hindered by the granting of permission to spend on an annual basis only.

5.24 Recent evidence produced for English motorways by the Department of Transport suggests that the present programme of reconstruction is keeping pace with the rate at which the roads are reaching the end of their design lives. However, this is not the case with non-motorway trunk roads, where the backlog of reconstruction needs is growing.

5.25 Apart from eventual reconstruction, roads also require more routine maintenance on a regular basis. This can prolong design life and so save on costs in the longer run. The National Road Maintenance Condition Survey (NRMCS) is a useful indicator of maintenance need for roads in England and Wales. The 1984 NRMCS shows that the three most important classes of road which are surveyed – non-motorway trunk roads, urban principal (i.e. local authority) roads and rural principal roads – are all in a worse condition than the base year of the Survey (1977). Rural minor roads are also in a worse condition.

5.26 Removing the non-motorway English trunk road backlog, at £0.3 million per mile, will cost £100 million by early 1986. Thereafter, expenditure must be increased by £30 million per year above 1985-86 levels to prevent a backlog re-emerging. Assuming that a 10% increase in routine maintenance expenditure will offset the deterioration recorded by the NRMCS (and applying this increase to Great

Britain as a whole) trunk road maintenance expenditure must rise by £11 million per year and local road maintenance expenditure by £120 million per year over 1985-86 levels.

Derelict Land

5.27 Land may be regarded as an adjunct to the infrastructure since the condition and appearance of land is an important environmental consideration, while the avilability of land is essential to the provision of buildings and transport links. The clearing of derelict land can therefore be the key to improving the environment and providing better infrastructure, especially in urban areas where unused land is scarce.

5.28 The Department of the Environment conducts a Survey of Derelict Land in England. The 1984 Survey, covering the period 1974-1982 showed that although 17,800 hectares (42,000 acres) of land had been cleared the total amount of derelict land had increased by 7.6% or 2,400 hectares (5,900 acres) to over 34,000 hectares (84,000 acres). Therefore the annual average clearance rate of 2,125 hectares should have been increased by 4,250 hectares to clear all derelict land.

5.29 Taking total expenditure on derelict land supported by grants under the 1982 Derelict Land Act as representative of the average cost of clearance, the cost is almost £150,000 per hectare. Assuming that the creation of derelict land continues at the same rate over the eight years 1983-1991 as it did over 1974-1982, then annual expenditure needs to be increased in order to
(a) clear the 1982 backlog of 34,000 hectares
(b) remove the 1983 and 1984 backlog of a further 600 hectares.
(c) prevent the build-up of a further backlog of 1,800 hectares during 1985-91.
The clearing of 36,400 hectares at £148,000 per hectare will cost £5,400 million.

Energy Industries

5.30 Although the privatisation of the British Gas Corporation and the Electricity Supply Industry is being contemplated, significant parts of the National Coal Board's operations are unlikely to be transferred to the private sector. The Government is also indirectly

responsible for nuclear power generation through the various Electricity Boards which make up the Electricty Supply Industry.

5.31 It is arguable that Government interference in these industries has had a number of disadvantageous effects. The British Gas Corporation has, like the Water Authorities, been obliged to impose high rises in charges (despite falls in real unit operating costs) which have funded levies to the Government and a negative EFL rather than expanded capital expenditure. Policy towards electricity generation has been heavily influenced by the dependance of the National Coal Board on coal-fuelled power stations as an outlet for its product. In 1983-84, 70% of coal output was sold to power stations. Electricity generation by nuclear power has not been expanded at a rate seen in some other countries. There has also been prevarication over the method of generation to be used: AGR or PWR.

5.32 While there is no clear evidence of lack of investment in the nationalised energy industries in recent years, it is to be hoped that a public sector investment appraisal would look at energy supply on a more rational basis. Th ending of the EFL controls (and also the levies paid to the government) would abolish what is in effect a form of taxation. Charges would relate more closely to operating costs and capital expenditure needs. The choice of methods of electricity generation would be determined to a greater extent by relative costs. When more energy industries are in the private sector these developments should be strengthened even further.

SECTION 6

The Impact of Infrastructure Needs on the Revised Medium Term Financial Strategy

6.1 The need for increased expenditure on the infrastructure discussed in Section 5 may be summarised as follows: The needs are assumed to relate to an 8-10 year period (at 1985 prices)

Table 6.1 Infrastructure Needs £ Million (1985 Prices)

Area	Authority Responsible					
	Central Government		Local Government		Public Corporations	
	N.I.	R.M.	N.I.	R.M.	N.I.	R.M.
Housing			N/A	10000		
NHS Buildings	N/A	1700				
School Buildings	N/A	N/A				
Water Supply					3600	
Sewerage			1000			
Roads	4000	430	4000	960		
Derelict Land Grants		1600				
Identifiable Total	4000	3730	5000	10960	3600	

NI: new investment
RM: repair and maintenance

Some £12,600 million of new investment has been identified, together with £14,700 million of repair and maintenance expenditure. Certain important new investment needs – notably for housing, hospitals and schools, cannot be identified due to the lack of forward projections of demand for these facilities and of depreciation calculations for the existing stock of buildings. It would also be noted that some aspects of infrastructure such as railways, rapid transit systems, airports and sea defences have not been considered.

6.2 To put the above expenditure needs in some context, they require average annual expenditure on new investment to increase by £1,260 million or 12% over planned 1985-86 expenditure of £10,259 million on construction work in the public sector. Average annual expenditure on repair and maintenance must rise by £1,470 million or 25% over the estimated 1983-84 expenditure of £6,000

million. Given the large gaps in the assessment of new investment requirements, the increased expenditure required there is also likely to be nearer 25% than 12%.

6.3 The General Government Borrowing Requirement for capital expenditure, which was just under £8,000 million in 1983 (see Table 4.2) should therefore now be running – after allowing for inflation since 1983 – at around £9,700 to accommodate the approximately £1,000 worth of additional capital expenditure on construction which has been identified. Public Corporations' Borrowing Requirement for capital expenditure, which stood at £505 million in 1983 *should be £360 million higher just to accommodate the needs of the* Water Industry. It may also be necessary for the £14,700 additional annual average expenditure on repair and maintenance identified for general government to be financed by borrowing.