Investment

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This paper examines the roles of investment and savings in the economy. It presents statistics on the levels of investment and savings in the United Kingdom and provides some international comparisons. Related policy issues including influences on investment decisions, the use of corporation tax capital allowances and the Private Finance Initiative are also considered.

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I Summary

This Paper examines the roles of investment and savings in the economy. It looks at some of the broad influences on the levels of investment and on savings and examines their wider role in the economy. Investment is examined in the context of the role it plays in modern theories of economic growth. Investment is now seen to have a pivotal role in overcoming some of the intellectual weaknesses of classical growth theories. Although it has become the focus of some popular debate, the full consequences and policy prescriptions of 'endogenous growth' theory are frequently badly explained or misunderstood. The new theory encourages commentators to re-evaluate the concept of investment and to look afresh at the environment in which it has to operate, taking into account the encouragement to innovation and entrepreneurship and the defence of property rights. Savings too are looked at for their contribution to growth in the economy. This, however, is done in an empirical way: the tendency of high saving countries also to be fast growing countries is fully explored in some recent literature published by the IMF.

The Paper also brings together a range of statistics to demonstrate, amongst other things, that traditional views of investment as being the preserve of heavy industry are clearly outdated. In total, manufacturing industry now accounts for less investment than either public services (health or education) or the financial services sector. Looked at from a historical perspective, in the two decades after the second World War the ratio of investment to GDP rose steadily. Thereafter the pattern has been more cyclical in nature with clear peaks (based on current price data) in 1974 and 1989 and, less clearly, in 1979.

Aside from the theoretical aspects of the subject, the Paper also looks at some of the structural influences on investment. Section IV looks at the role and efficacy of the tax system, and in particular the influence of the system of capital allowances. Despite appeals from business for a more generous system, the tide of recent opinion has been away from a generous, broad brush tax-induced encouragement of investment. Academic groups, such as the IFS, express doubts as to whether allowances do much more than bring forward investment, leaving its volume unchanged. The Government's doubts over the net effect of a reintroduction of accelerated allowances and a preference for fewer allowances but lower overall tax rates is compared, with some support for attractive but limited allowances for new investment from opposition parties. Section V of the Paper examines the existence or otherwise of 'short termism'. This section illustrates the various influences which institutional shareholders may bring to bear on firms and how these influences may, intentionally or not, promote an undesirable investment policy.

Lastly, the Paper looks at the Private Finance Initiative. The PFI is the most high profile element of the public sector's investment programme and some of the more complex implications behind its simply stated aims are unravelled.

II The role of investment

> *"There is a widespread mythology that investment is good and the more investment the better. But investment may be good or bad and there may be too much as well as too little."*[1]

It has never been so important to clarify what is meant by 'investment' and what its larger role in the economy might be. Investment has recently become a contentious issue with major political battles being fought out over both its volume and direction. This section tries to draw together some of the threads of the current arguments.

Economic agents, individuals, companies etc, can either consume their available resources now, or do so at a later date. It is intuitively easy to see savings as deferred consumption but so also is investment. Investment is the acquisition of capital goods for the services or future stream of profits that they provide, rather than for the satisfaction that they give of themselves. Since they are all part of the same decision it follows that for all investment there must be an equivalent saving. The matchless benefit of an organized and efficient capital market is that the two decisions do not have to be made by the same agent. A company does not have to limit its investments to retained profits; individuals do not have to save enough to buy a house. It is therefore, as later parts of this Paper will make clear, as important when considering investment, to also consider the factors that affect savings.

Economists have struggled for many years to identify the determinants of investment. They have found several possible 'explanatory variables' but seldom agree upon which is the most important. In fairness this is not entirely surprising. Investment is a term that covers a huge variety of decisions, decisions made by very different economic agents, from a large government department contemplating industrial strategy policies to an individual buying a house. Despite that, several 'variables' consistently appear in accounts of investment determination. The cost of investment is one.

The cost of investment is typically made up of two elements, the capital cost and the finance (interest rate) cost of borrowing the funds or the interest foregone in the employment of retained funds. With the cost of capital goods given at any time, it is the current rate of interest that is seen as determining the level of investment. Put simply the higher is the rate of interest the less profitable will potential investments appear to be and hence fewer will be undertaken.

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[1] *The New Palgrave Dictionary of Money & Finance*, vol 2 p 508

Another type of explanation for the level of investment focuses upon the derived demand nature of investment goods. This is of particular application to the company sector. Companies invest in new machines if either, demand for their product exceeds their capacity to supply, or, if new machines can reduce production costs enabling them to improve their market share or make higher per unit profits from the same level of sales. Investment, therefore, is linked in a cyclical way with the state of the economy, expected high rates of growth lead to an acceleration of investment to supply the output, expectations of a decline discourage producers from investing in machines that may stand idle.

The third main determinant of investment has been the impulse given to it by government policy. Part of what was the Keynesian revolution was the pivotal role given to the management of aggregate demand. If national income equalled consumption in the economy plus investment, then it was to investment that government's could turn to influence the state of the economy. Investment in roads, housing etc was seen both as providing useful infrastructure as well as stimulating the 'real' economy. It has also, in certain periods, been viewed as a more 'responsible' way of stimulating the economy than the alternative of tax cuts and other encouragements to consumer spending which had negative effects on the balance of payments.

Investment has then been stimulated and affected by at least three causal factors, one financial, one industrial and one political. But there are others and one, the unrealistic timescales of returns to shareholder value, will be discussed in Section V of this Paper.

Investment as a macro-economic variable (as distinct from its role in the encouragement of improvements in agricultural or industrial output) has not had a long history of intellectual attention. Keynes recognized the importance of investment in the context of the impending problems of national industrial competitiveness, when he remarked after the ending of lend lease that:

> If by some sad geographical slip the American air force (it is too late now to hope for much from the enemy) were to destroy every factory on the North East coast and in Lancashire (at an hour when the directors were sitting there and no one else) we should have nothing to fear [from foreign competition].[2]

But what has raised investment to its current position of importance and political interest has been its perceived influence on the rate of economic growth. A Professor of economics at Harvard wrote this time a year ago:

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[2] Quoted in Peter Hennessy *Never Again*, p.117

> UK politicians have recently begun debating the economic theory of 'endogenous growth'...The Labour Party's shadow chancellor, Gordon Brown, seems serious in his attempts to understand and apply the idea. However, he uses it in a confused way to rationalise government intervention in the economy.
>
> On the government side, Chancellor Clarke dwells on the funny sound of endogenous growth and depicts it as some sort of eco-babble that he need not try to understand. I suppose that if it really were "indigenous growth" as he recently joked, he would be correct.[3]

Endogenous growth theory is the latest attempt made by economists to explain 'growth', not the sort of growth process that one can derive from inferences about the current state of capacity in manufacturing, but more the long term tendency of some countries to grow faster than others, or the tendency for all countries to grow faster at some stages in their development than at others.

Growth theories in the post-War period began on the assumption that growth was simply a function of technical improvements plus the rate of population growth but this simplistic model of growth, in which growth was *exogenous*, or outside of, the control of governments and other economic agents, was forced to take account of various observed statistical tendencies. These were listed by Kaldor and others in the 1960s and are summarised according to a more recent article in the following way:

- wide differences are observed in growth rates between countries
- there is no apparent tendency for growth rates to decline over time
- the capital/output level is stationary
- the shares of capital and labour in total net output are stationary
- the contribution of measurable factor inputs leaves a substantial residual in growth accounting
- there appears to be no correlation between growth rates and the

[3] *Financial Times* 1 November 1994

level of output per head[4]

These observations stimulated research into their cause, why should growth be very different between otherwise similarly endowed countries, why don't growth rates decline when all the best investments have already been made, what is the growth residual?

The original modifications to the traditional growth theory included a much larger role for 'spillover effects' of increased capital stocks, a higher investment base will generate better quality investment and hence returns. More recently, with the work by a Professor Romer, another factor of production has been is introduced, namely, knowledge. The practical effects of both developments are similar, increasing factor inputs increases output disproportionately, however, since it is the more fashionable nowadays one can profitably concentrate upon the latter development. The conceptual advantages of introducing a further factor of production were explained in an article below:

> First, the new theory recognises that knowledge can raise the return on investment. This accounts for the evidence on rates of return over time, and the non convergence of growth rates among countries. Second, whereas in the neoclassical theory technological progress just happens, in the new theory knowledge is a factor of production which, like capital, has to be paid for by foregoing current consumption. Economies have to invest in knowledge in the same way that they invest in machines. Third, since past investment in capital may make it more profitable to accumulate knowledge the new theory admits the possibility of a virtuous circle in which investment spurs knowledge and knowledge spurs investment. This in turn implies that a sustained increase in investment can permanently raise a country's growth rate - an idea that the traditional theory denied.[5] [6]

The clearest demonstration of this theory has been made with reference to areas such as the pharmaceutical industry, where industrial investment in research has produced marketable goods. On its own this is an unremarkable finding, however, it has seldom been applied so widely, touching upon all aspects of investment in human capital. Investment as an activity therefore has been taken up by very different sections in society. It is championed now by those who value a return to an industrial past in which traditionally high levels of investment

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[4] "Investment & Technical Progress", *Oxford Review of Economic Policy,* Vol 8 No 4

[5] The traditional theory implies that increasing investment simply provides a one-off increase in output, eventually the larger capital stock will need replacing and the higher flow of investment funds simply acts to replace it rather than add to the stock.

[6] "Economic Growth: Explaining the mystery", *Economist,* 4 January 1992

directed towards (mainly manufacturing) industry was the key to national prosperity and by those who see investment more in terms of a social crusade to provide the missing residual in the growth equation. But, as Professor Barro commented above, its adherents have sometimes ignored some of the detailed proscriptions that are the logical conclusions of this theory.

For example, it may be the case that the government could get as great a return on its investment if it introduced tough patent laws and eased restrictions on monopoly exploitation of profits as if it spent millions of pounds educating schoolchildren in this or that new skill. Professor Barro continues:

> A crucial element in technological progress in this theory was the reward given to innovators. In the absence of some prize, would be entrepreneurs have no incentive to carry out costly and sometimes unsuccessful research projects. Typically the reward is a period of temporary monopoly power, during which a new product or the fruits of an improved technology can be priced above the competitive level.[7]

The Economist study also drew attention to the variety of issues confronted by the new growth economics.

> As such studies multiply, the value of the new growth theory will become clearer. But it is hoped that its biggest effect will be to reorder the economic policy agenda. This is influenced more than most politicians would admit by debates that they barely understand - witness Keynes and demand management after 1945, or Milton Friedman and the monetarism of the 1970s. The new growth theory confirms that governments are mistaken in concentrating so exclusively on the business cycle. If, however indirectly, it leads them to think harder about education, investment, R & D, trade reform, intellectual property rights and so on, it will be a breakthrough indeed.[8]

It is ironic that just when investment, as an issue, has become part of the central political debate, may also be the time when our views of what investment is and why it is important will have to change radically.

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[7] *Financial Times* 1 November 1994 op cit

[8] *Economist*, 4 January 1992 op cit p.20

III Levels of investment

A. Who is investing how much and in what?

In 1994 total investment in fixed assets in the United Kingdom was some £100 billion. This section illustrates how this expenditure was distributed by type of asset, industry and sector. Investment is defined as gross[9] domestic fixed capital formation (GDFCF) and represents the value of expenditure in the United Kingdom either adding to or replacing the stock of existing fixed assets. Expenditure on repairs and maintenance is excluded.

Expenditure can be sub-divided into five main types of asset:

- **vehicles, ships and aircraft**: this category includes buses, coaches, other road vehicles, railway rolling stock, ships and aircraft. Passenger cars bought by businesses are included but those purchased by consumers are excluded. Ships are only included if they are UK owned and registered. Specialised non-road vehicles such as agricultural tractors are counted as plant and machinery.

- **plant and machinery**: this category includes most plant, machinery and equipment. Plant & machinery which is integral to buildings (eg lifts and heating equipment) is excluded. Changes in the stock of breeding animals are included.

- **dwellings**: this category includes the construction of new houses and flats and improvements to existing ones. Costs such as architects and surveyors fees and the cost of integral equipment are included.

- **other new buildings and works**: this category includes new buildings other than dwellings and most civil engineering and construction work. Railway track and gas and water mains are included but electricity and telephone cables are included with plant and machinery. Costs such as architects and surveyors fees and the cost of integral equipment are included.

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[9] The term 'gross' indicates before depreciation. Figures for individual sectors and industries represent purchases net of disposals.

- **purchases less sales of land and existing buildings**: for individual sectors and industries this category includes the net purchase of land and existing buildings. Sales of council houses, for example would appear here. Transfer costs such as stamp duty, agents' commission and legal fees are included. Over the economy as a whole these transactions net out to equal transfer costs only.

Table 1 on page 13 shows the level of investment in 1994 analysed by industry and type of asset. Data for industries are recorded on a 'user basis'. The figures for manufacturing, for example, include both the cost of assets purchased directly and the value of assets obtained on financial leases. Investment in dwellings is shown as a separate industry and investment in land and existing dwellings is not analysed by industry.

Looking first at investment by type of asset, plant & machinery accounted for 38% of total investment in 1994, buildings and works other than dwellings 27%, and dwellings 21%. Turning to the analysis by industry, investment by manufacturing industry only represented some 13% of the total for the economy as a whole in 1994. Other services, which includes roads, education and health services, represented around 17% of the overall total and the financial sector around 14%. Plant and machinery investment was more heavily concentrated in manufacturing industry with 29% of the total being in manufacturing.

Table 2 on page 14 shows the level of investment in 1994 analysed by sector and type of asset. While only around 17% of the total investment was undertaken by the public sector (general government and public corporations) the public sector accounted for 46% of investment in buildings and works other than dwellings.

In documentation such as the budget 'Redbook'[10] an alternative analysis of investment is presented. This distinguishes *business investment* from investment in private dwellings and land and investment by general government. Business investment includes expenditure by the private sector and public corporations on assets other than private dwellings and existing land and buildings. Expenditure by NHS trusts, which are generally classified as public corporations in the national accounts, is included with general government for these purposes. Table 3 on page 15 shows investment in 1994 on the basis of this presentation:

[10] See, for example, the *Financial Statement & Budget Report 1995/96* HC 12 1994/95 table 3.2

Table 1

Gross domestic fixed capital formation: 1994
By industry & type of asset
£ million at current market prices

Industry	Vehicles, ships & aircraft	Plant & machinery	Dwellings	Other new Buildings & works	Land & existing buildings	Total
Agriculture, hunting, forestry & fishing	216	372	-	355	-	943
Mining & quarrying incl. oil & gas extraction	36	917	-	2,886	-	3,839
Manufacturing	731	11,093	-	1,529	-	13,353
Electricity, gas & water	41	3,262	-	2,069	-	5,372
Construction	392	310	-	25	-	727
Wholesale & retail trade; repairs; hotels & restaurants	942	4,252	-	2,730	-	7,924
Transport, storage & communication	4,420	4,591	-	2,399	-	11,410
Financial intermediation, real estate, renting & business activitie	3,197	7,897	-	3,218	-	14,312
Other services	880	5,142	-	11,447	-	17,469
Dwellings	-	-	20,950	-		20,950
Transfer costs of land & existing buildings	-	-	-	-	3,776	3,776
Total	10,855	37,836	20,950	26,658	3,776	100,075

Source: CSO "United Kingdom National Accounts" 1995 table 13.8

Table 2

Gross domestic fixed capital formation: 1994

By sector & type of asset

£ million at current market prices

Sector	Vehicles, ships & aircraft	Plant & machinery	Dwellings	Other new Buildings & works	Land & existing buildings	Total
Personal sector	1,450	2,595	18,041	1,375	3,984	27,445
Industrial & commercial companies	7,259	28,514	218	11,861	-995	46,857
Financial companies & institutions (a)	1,017	2,902	-	1,276	3,136	8,331
Public corporations	642	2,030	240	2,467	-562	4,817
General government	487	1,795	2,451	9,679	-1,787	12,625
of which: Central government	*279*	*1,297*	*238*	*4,139*	*157*	*6,110*
Local authorities	*208*	*498*	*2,213*	*5,540*	*-1,944*	*6,515*
Total	10,855	37,836	20,950	26,658	3,776	100,075

Note: (a) Including expenditure by life assurance and pension funds.

Source: CSO "United Kingdom National Accounts" 1995 table 13.5

Table 3

Gross domestic fixed capital formation: 1994
Alternative presentation

	£ million	Percent of total
Business investment	62,187	62.1%
Private dwellings and land (a)	22,035	22.0%
General government (b)	15,853	15.8%
Total	100,075	100.0%

Notes: (a) Includes transfer costs of land and existing buildings for whole economy.
(b) Including NHS trusts.

Source: CSO database

B. Historical trends

Table 4 on page 16 shows the level of gross fixed capital formation in the United Kingdom in each year since 1948. The data are expressed at both current (ie cash) prices and at constant 1990 prices. The latter series is derived by deflating each component of total investment by a asset-specific price index. The resulting constant price data therefore provide a guide to the changing volume of investment. Although investment in 1994 was some 10% below the record level recorded in 1989, it was around four times the level of the early 1950s.

The data are also expressed as proportions of gross domestic product (GDP). It will be noted that the ratios based upon current and constant price data show different patterns. This is because the prices of investment goods can change at a different rate to other prices in the economy. This relative price effect is eliminated when the data are expressed at constant prices. For example, between 1989 and 1994 the average level of prices in the economy, as measured by the GDP deflator, rose by nearly 25%. Over the same period the average price of investment goods, as measured by the implied deflator for GDFCF, only rose by around 6%. Thus, when considering the ratio of GDFCF to GDP expressed at current prices, it is important to remember that part of the fall since 1989 reflects fact that investment goods are now cheaper in relative terms. The extent of this factor is illustrated by the less marked fall in the ratio based on constant price data. The trends in the two ratios is illustrated in the graph on page 17.

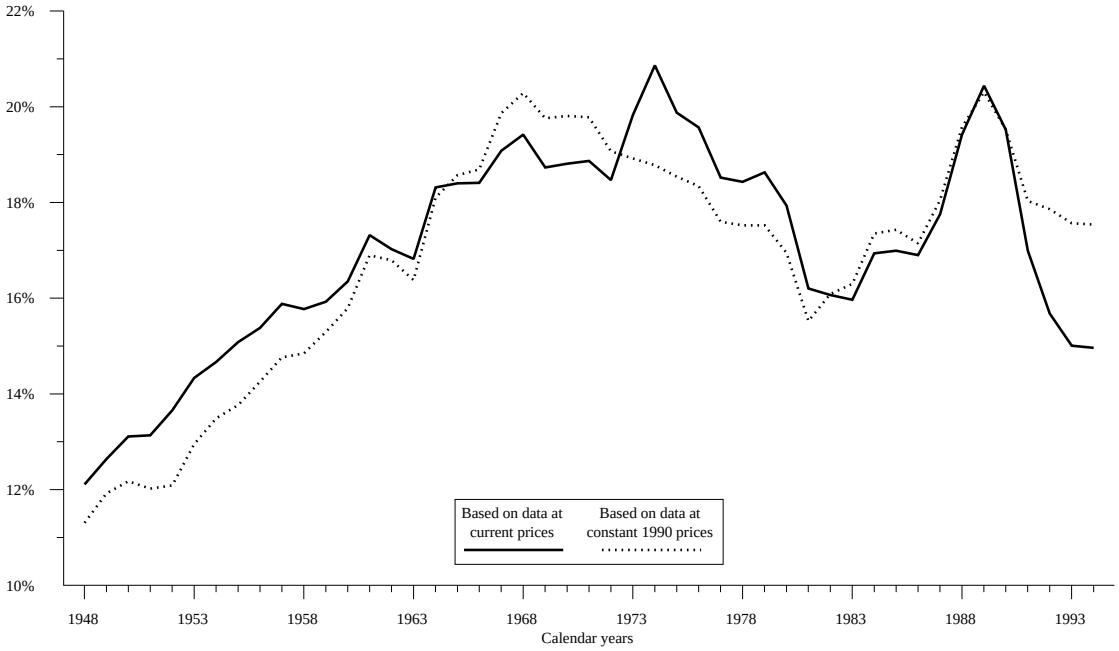
Table 4

Gross Domestic Fixed Capital Formation and GDP
United Kingdom

Calendar year	At current prices			At constant 1990 prices		
	GDFCF	GDP at market prices	GDFCF/ GDP	GDFCF	GDP at market prices	GDFCF/ GDP
	£ million	£ million		£ million	£ million	
1948	1,433	11,835	12.1%	21,223	187,747	11.3%
1949	1,588	12,565	12.6%	23,177	194,447	11.9%
1950	1,719	13,112	13.1%	24,493	201,213	12.2%
1951	1,919	14,612	13.1%	24,693	205,427	12.0%
1952	2,153	15,764	13.7%	24,953	206,421	12.1%
1953	2,423	16,906	14.3%	27,781	214,523	13.0%
1954	2,624	17,890	14.7%	30,184	223,786	13.5%
1955	2,911	19,304	15.1%	31,932	231,999	13.8%
1956	3,193	20,766	15.4%	33,419	234,483	14.3%
1957	3,481	21,920	15.9%	35,233	238,667	14.8%
1958	3,604	22,853	15.8%	35,562	239,571	14.8%
1959	3,856	24,213	15.9%	38,306	250,504	15.3%
1960	4,232	25,887	16.3%	41,752	264,461	15.8%
1961	4,750	27,432	17.3%	45,829	271,267	16.9%
1962	4,904	28,812	17.0%	46,144	274,869	16.8%
1963	5,144	30,586	16.8%	46,786	285,744	16.4%
1964	6,123	33,435	18.3%	54,531	301,281	18.1%
1965	6,630	36,035	18.4%	57,352	308,905	18.6%
1966	7,063	38,370	18.4%	58,818	314,748	18.7%
1967	7,708	40,400	19.1%	63,962	321,961	19.9%
1968	8,506	43,808	19.4%	67,967	335,078	20.3%
1969	8,832	47,153	18.7%	67,568	341,988	19.8%
1970	9,736	51,770	18.8%	69,276	349,794	19.8%
1971	10,894	57,748	18.9%	70,556	356,743	19.8%
1972	11,940	64,663	18.5%	70,401	369,235	19.1%
1973	14,726	74,257	19.8%	74,991	396,407	18.9%
1974	17,497	83,862	20.9%	73,173	389,674	18.8%
1975	21,035	105,852	19.9%	71,720	386,867	18.5%
1976	24,504	125,247	19.6%	72,921	397,610	18.3%
1977	27,036	145,983	18.5%	71,618	407,002	17.6%
1978	31,060	168,526	18.4%	73,777	421,073	17.5%
1979	36,925	198,221	18.6%	75,840	432,849	17.5%
1980	41,561	231,772	17.9%	71,764	423,490	16.9%
1981	41,304	254,927	16.2%	64,888	418,026	15.5%
1982	44,824	279,041	16.1%	68,404	425,252	16.1%
1983	48,615	304,456	16.0%	71,845	440,888	16.3%
1984	55,181	325,852	16.9%	78,270	451,131	17.3%
1985	60,718	357,344	17.0%	81,575	468,071	17.4%
1986	65,032	384,843	16.9%	83,685	488,122	17.1%
1987	75,158	423,381	17.8%	92,339	511,615	18.0%
1988	91,530	471,430	19.4%	105,164	537,215	19.6%
1989	105,443	515,957	20.4%	111,470	548,940	20.3%
1990	107,577	551,118	19.5%	107,577	551,118	19.5%
1991	97,747	575,321	17.0%	97,403	540,308	18.0%
1992	93,642	597,242	15.7%	95,973	537,448	17.9%
1993	94,644	630,707	15.0%	96,538	549,589	17.6%
1994	100,075	668,866	15.0%	100,081	570,722	17.5%

Source: CSO database series DFDC, CAOB, DFDM & CAOO

Gross Domestic Fixed Capital Formation
Percentages of GDP



In the two decades after the second World War the ratio of GDFCF to GDP rose steadily. Thereafter the pattern has been more cyclical in nature with clear peaks (based on current price data) in 1974 and 1989 and, less clearly, in 1979.

C. International comparisons

Table 5 on page 18 shows the ratio of investment to GDP in each OECD country in each year 1979 to 1993. The figures are based on data expressed at current prices and the comments above about the influence of relative price changes should be borne in mind. Two further factors may also be of importance when making such comparisons:

- at any given time countries can be at different points in the economic cycle.

- data on the quantity of investment do not reflect any differences in the quality of investment.

Table 5

Gross Fixed Capital formation
Percentages of GDP

Country	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Average '79-'93
Australia	23.4%	24.2%	25.8%	25.4%	22.9%	22.9%	24.7%	24.4%	23.9%	24.4%	25.3%	22.8%	20.5%	19.7%	19.4%	23.3%
Austria	25.3%	25.7%	25.4%	23.2%	22.4%	22.2%	22.6%	22.8%	23.1%	23.7%	24.3%	24.6%	25.3%	25.0%	24.1%	24.0%
Belgium	20.7%	21.1%	18.0%	17.3%	16.2%	16.0%	15.6%	15.7%	16.0%	17.7%	19.1%	20.3%	19.5%	19.1%	17.8%	18.0%
Canada	23.1%	23.5%	24.4%	21.9%	20.2%	19.2%	19.9%	20.3%	21.3%	22.1%	22.6%	21.3%	19.9%	18.8%	18.0%	21.1%
Denmark	20.9%	18.8%	15.6%	16.1%	16.0%	17.2%	18.7%	20.8%	19.7%	18.1%	18.1%	17.4%	16.4%	15.1%	14.6%	17.6%
Finland	23.3%	25.4%	25.3%	25.3%	25.6%	24.0%	23.9%	23.4%	23.9%	25.2%	28.0%	27.0%	22.4%	18.5%	14.9%	23.7%
France	22.4%	23.0%	22.1%	21.4%	20.2%	19.3%	19.3%	19.3%	19.8%	20.7%	21.3%	21.4%	21.1%	20.0%	18.9%	20.7%
Germany (a)	23.4%	24.4%	23.3%	22.0%	22.0%	21.6%	21.1%	20.9%	20.9%	21.1%	21.8%	22.6%	23.0%	23.2%	22.2%	22.2%
Greece	25.8%	24.2%	22.3%	19.9%	20.3%	18.5%	19.1%	18.5%	17.1%	17.4%	19.2%	19.6%	18.6%	18.0%	17.2%	19.7%
Iceland	23.5%	25.4%	24.6%	24.6%	21.7%	21.7%	21.1%	19.1%	20.4%	19.7%	19.1%	19.2%	19.2%	17.5%	15.8%	20.8%
Ireland	29.5%	27.7%	28.7%	25.7%	22.4%	20.7%	18.4%	17.4%	16.5%	16.2%	17.2%	18.2%	16.5%	15.9%	14.9%	20.4%
Italy	22.8%	24.3%	23.9%	22.3%	21.3%	21.0%	20.7%	19.7%	19.7%	20.1%	20.2%	20.3%	19.7%	19.1%	17.1%	20.8%
Japan	31.7%	31.6%	30.6%	29.5%	28.0%	27.7%	27.5%	27.3%	28.5%	29.9%	31.0%	32.2%	31.8%	30.8%	30.1%	29.9%
Luxembourg	22.2%	24.7%	23.2%	22.8%	19.4%	18.3%	16.1%	19.8%	22.7%	25.3%	23.3%	22.9%	24.9%	22.9%	24.4%	22.2%
Mexico	24.0%	24.8%	26.4%	23.0%	17.5%	17.9%	19.1%	19.5%	18.5%	19.3%	18.2%	18.6%	19.5%	20.8%	20.4%	20.5%
Netherlands	21.6%	21.6%	19.6%	18.7%	18.7%	19.0%	19.7%	20.4%	20.8%	21.3%	21.5%	20.9%	20.4%	20.3%	19.7%	20.3%
New Zealand	20.5%	20.6%	23.5%	24.6%	24.6%	25.2%	26.2%	22.5%	21.4%	19.2%	20.0%	18.9%	16.0%	16.5%	18.4%	21.2%
Norway	27.7%	24.8%	28.0%	25.5%	25.7%	26.0%	22.0%	28.3%	28.0%	29.2%	27.3%	18.8%	18.5%	19.2%	22.0%	24.7%
Portugal	29.3%	31.5%	34.0%	34.3%	32.2%	26.0%	24.0%	24.4%	27.0%	28.2%	27.5%	27.2%	27.1%	27.1%	25.6%	28.4%
Spain	21.5%	22.2%	21.9%	21.6%	20.8%	18.7%	19.2%	19.5%	20.8%	22.6%	24.1%	24.5%	23.8%	21.8%	19.8%	21.5%
Sweden	19.7%	20.0%	18.8%	18.6%	18.6%	18.7%	19.3%	18.5%	19.3%	20.2%	22.0%	21.5%	19.4%	17.0%	14.3%	19.0%
Switzerland	21.8%	23.8%	24.1%	23.1%	23.3%	23.4%	23.8%	24.2%	25.3%	26.6%	27.5%	26.9%	25.6%	23.7%	22.5%	24.4%
Turkey	19.3%	15.9%	19.3%	19.3%	18.9%	18.9%	21.8%	25.0%	24.7%	26.1%	22.8%	22.9%	23.7%	23.0%	25.3%	21.8%
United Kingdom	18.7%	18.0%	16.2%	16.1%	16.0%	17.0%	17.0%	17.0%	17.8%	19.5%	20.5%	19.6%	17.0%	15.8%	15.1%	17.4%
United States	21.3%	20.2%	19.9%	18.7%	18.5%	19.3%	19.5%	19.1%	18.5%	18.3%	17.7%	16.9%	15.6%	15.6%	16.2%	18.3%
Total OECD (b)	23.3%	23.0%	22.6%	21.3%	20.7%	20.8%	20.9%	21.0%	21.3%	22.0%	22.2%	21.9%	21.2%	20.8%	20.7%	21.6%

Notes: (a) Estimates for unified Germany throughout.
(b) Aggregate based on data converted at current market exchange rates.

Source: OECD "National Accounts 1960-1993" Vol I - data on disk

In 1993 the ratios ranged from under 15 percent in countries such as Denmark, Finland, Ireland and Sweden to over 25 percent in Japan, Portugal and Turkey. The ratio in the United Kingdom was 15.1 percent compared to a weighted average for the OECD of 20.7 percent. The average ratios for the fourteen year period 1979 to 1993 ranged from 17.4 percent in the UK to 29.9 percent in Japan.

IV The role of savings

A. The investment-savings identity

In Keynesian macro-economics it is axiomatic that the level of investment must equal the level of saving. The *New Palgrave A Dictionary of Economics*[11] notes:

> In national income accounts, measured investment and saving are always identically equal, owing to the identity of output and income which, aside from receipts from abroad, is earned only from production. That part of income not spent on consumption is saved. But that part of production not purchased by consumers must be acquired (or kept) by producers and hence is investment, though not necessarily intended investment.

As a result of this identity, those who seek to promote levels of investment often focus on the level of saving. For example, in a speech to a CBI seminar in March 1994, Stephen Dorrell, the then Financial Secretary, made the following comments:

> ...there is a direct relationship linking savings and investment. We all recognise that investment in wealth creation is the key to future prosperity. There are relatively few businesses that are able to grow without requiring extra investment. Capital availability to finance that investment is therefore a key issue; and within the domestic economy it can come from only one source - saving.
>
> Of course we don't live in a closed economy, and it is also possible to finance some investment with capital drawn from overseas. Indeed Britain has been extremely successful in attracting inward investment. But that does not absolve us from the need to ensure that our domestic structures facilitate the flow of savings towards attractive investment opportunities[12].

An article in the May 1995 edition of the IMF's *World Economic Outlook* puts the same argument in an international context:

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[11] Vol II p.981

[12] Source: HM Treasury press notice 34/94 dated 9 March 1994

> Saving is the process by which an economy sets aside part of its output and uses it to generate income in the future. Individuals, corporations, and governments save. Households set aside money for home ownership and for retirement, businesses store up earnings to construct new factories, and governments build up assets in public pension systems and infrastructure. Aggregate savings provide the ultimate constraint on global investment spending, and therefore play a critical macroeconomic role as well. Since investment provides a key link to productivity and real income growth, there must be an adequate supply of saving for the world economy to advance at an acceptable pace.[13]

The aim of this section is to define what constitutes investment and saving in this context and to illustrate the identity for the United Kingdom in recent years.

In this context investment is more broadly defined than just investment in fixed assets. It also includes increases in the book value of stocks and work-in-progress (either through stock appreciation or changes in physical levels) and net investment abroad. Net investment abroad is equal to the UK's surplus on the current account of the balance of payments. Saving, on the other hand, represents the difference between the current receipts and current expenditure of each sector of the economy; the personal sector, companies, government, etc. For companies, for example, saving represents undistributed income after taxation[14]. Thus the concept of saving is very different from the purchase of financial assets by individuals.

Table 6 on page 22 shows the levels of saving by each sector in years since 1989 and the value of investment split between GDFCF, changes in stocks and net investment abroad. There are several trends which can be readily identified:

- personal sector saving doubled between 1989 and 1992 reflecting the recovery of the personal sector savings ratio from the very low levels recorded during the late 1980s.

- central government saving fell from a positive £12 billion in 1989 to a negative £31 billion in 1994. This broadly mirrors the trend in the PSBR over this period.

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[13] "Saving in a growing world economy" IMF *World Economic Outlook* May 1995 p.67

[14] Before providing for depreciation, stock appreciation and additions to dividend and tax reserves.

Table 6

Saving and Investment
£ million

	1989	1990	1991	1992	1993	1994
Saving						
Personal sector	24,898	30,798	40,859	53,139	51,988	44,490
Industrial & commercial companies	41,451	37,795	37,228	39,217	54,008	68,493
Financial companies & institutions	7,873	9,041	5,054	10,006	8,999	18,302
Public corporations	5,038	2,876	1,058	1,888	2,814	3,167
General government	13,523	12,105	2,098	-20,235	-31,528	-28,313
of which: Central government	*11,946*	*7,548*	*41*	*-23,212*	*-35,608*	*-30,724*
Local authorities	*1,577*	*4,557*	*2,057*	*2,977*	*4,080*	*2,411*
All sectors	92,783	92,615	86,297	84,015	86,281	106,139
Residual error	-	-	-	-	-	-565
Total	92,783	92,615	86,297	84,015	86,281	105,574
Investment						
Gross domestic fixed capital formation	105,443	107,577	97,747	93,642	94,644	100,075
Increase in book value of stocks, etc.	9,738	4,331	-2,917	-159	2,679	7,183
Net investment abroad	-22,398	-19,293	-8,533	-9,468	-11,042	-1,684
Total	92,783	92,615	86,297	84,015	86,281	105,574

Source: CSO "United Kingdom National Accounts" 1995 table 3.5

- the level of net investment from abroad has fallen sharply over this period, from £22 billion in 1989 to £2 billion in 1994. This is a reflection of the improvement in the UK's balance of payments position.

B. International comparisons

In the OECD's standardised national accounts the definitions of saving and investment are slightly different. Both saving and changes in stocks are recorded net of stock appreciation. Table 7 on page 25 shows the ratio of gross national saving to GDP in each OECD country in each year 1979 to 1993.

In 1993 the ratios ranged from under 15 percent in countries such as Canada, Finland, Sweden, the United Kingdom and the United States to over 25 percent in Japan, Luxembourg, Portugal and Switzerland. The ratio in the United Kingdom was 12.7 percent compared to a weighted average for the OECD of 19.8 percent. The average ratios for the fourteen year period 1979 to 1993 ranged from 15.7 percent in Denmark to 48.4 percent in Luxembourg. The average ratio for the UK was 15.9 percent compared to a weighted average for the OECD of 21.7 percent. The very high level of savings in Luxembourg is partly a reflection of the large current account surplus which is equivalent to net investment abroad.

When comparing countries, there appears to be a link between the level of savings and the rate of economic growth. Although the direction of causality is unclear (does high saving result in high growth or vice versa), there appears to be a virtuous circle where higher growth raises the savings rate which, in turn, feeds back into higher growth. The IMF article referred to above[15] states:

> One of the most striking regularities in cross-country data is the relationship between the rate of saving and the growth of output. High-saving countries generally grow faster than do low-saving countries. Fourteen of the world's 20 fastest growing economies over the past ten years had a saving rate over 25 percent, and none had a saving rate under 18 percent. Meanwhile 8 of the world's slowest growing 20 economies over the same period had a saving rate below 10 percent, and 14 were below 15 percent.[1] But the linkage from saving to economic growth is not ironclad. Some countries have had very high saving rates and comparatively low economic growth - Switzerland, for example - while others have experienced healthy economic growth despite a relatively low saving rate, at least for a period of time. Chile, for example, has enjoyed over 6 percent average annual real GDP growth over the past ten years, while its saving rate has averaged just 18 percent.

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[15] IMF op cit pp69-71

Table 7

Gross National Saving
Percentages of GDP

Country	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Average '79-'93
Australia	21.9%	21.4%	20.3%	17.2%	19.4%	19.2%	18.6%	19.2%	21.0%	22.4%	20.4%	17.5%	15.5%	15.6%	16.5%	19.1%
Austria	25.7%	25.8%	24.3%	24.0%	22.6%	23.5%	23.2%	23.8%	23.8%	24.6%	25.2%	26.3%	25.8%	25.1%	24.1%	24.5%
Belgium	18.6%	17.5%	14.1%	13.7%	14.7%	15.8%	15.2%	17.1%	17.5%	19.8%	21.3%	21.2%	21.2%	21.3%	22.3%	18.1%
Canada	23.1%	22.9%	22.6%	19.5%	18.8%	20.2%	19.6%	18.1%	19.0%	20.6%	19.4%	16.4%	13.9%	12.8%	13.3%	18.7%
Denmark	16.6%	14.9%	12.4%	12.1%	13.4%	15.1%	14.9%	16.1%	16.1%	16.6%	16.9%	17.8%	17.4%	18.0%	17.2%	15.7%
Finland	25.2%	26.0%	24.9%	23.3%	22.8%	23.8%	22.8%	22.2%	22.1%	24.0%	24.8%	23.0%	15.1%	12.1%	13.4%	21.7%
France	24.6%	23.6%	21.1%	19.7%	19.1%	19.0%	18.9%	20.1%	20.0%	21.1%	21.8%	21.5%	20.9%	19.8%	18.7%	20.7%
Germany (a)	22.8%	21.7%	20.3%	20.2%	21.2%	21.7%	22.0%	23.8%	23.5%	24.3%	25.7%	24.9%	22.5%	22.0%	20.6%	22.5%
Greece	28.3%	29.1%	24.6%	16.7%	16.8%	15.4%	13.1%	14.5%	14.5%	17.3%	15.8%	13.8%	15.3%	15.5%	16.6%	17.8%
Iceland	23.3%	24.0%	21.5%	19.0%	18.3%	16.3%	14.6%	17.2%	15.1%	15.0%	15.0%	15.8%	14.2%	14.3%	15.9%	17.3%
Ireland	18.0%	15.1%	12.9%	16.0%	15.8%	15.7%	14.9%	14.9%	16.3%	15.9%	16.3%	20.0%	20.7%	18.5%	20.8%	16.8%
Italy	26.3%	24.7%	22.5%	22.0%	22.2%	22.3%	21.6%	21.4%	20.8%	20.8%	20.0%	19.6%	18.6%	17.2%	18.0%	21.2%
Japan	31.5%	31.1%	31.5%	30.6%	29.8%	30.8%	31.7%	32.0%	32.6%	33.9%	34.3%	34.6%	35.1%	33.9%	33.6%	32.5%
Luxembourg	37.3%	37.6%	39.0%	50.0%	53.8%	53.8%	54.1%	53.7%	47.2%	47.2%	50.2%	52.8%	51.1%	50.7%	47.0%	48.4%
Mexico	20.8%	22.2%	21.4%	22.4%	24.7%	22.5%	22.5%	18.2%	22.0%	19.3%	18.8%	19.2%	17.8%	16.1%	15.8%	20.2%
Netherlands	20.7%	20.5%	21.0%	21.6%	22.0%	23.7%	24.3%	24.4%	22.6%	24.2%	26.1%	26.0%	24.8%	23.5%	23.2%	23.2%
New Zealand	20.1%	18.6%	20.7%	19.7%	20.9%	20.2%	18.1%	19.3%	19.2%	18.9%	16.6%	15.1%	14.5%	18.6%	21.0%	18.8%
Norway	25.3%	29.6%	29.4%	27.7%	28.3%	31.0%	29.6%	23.0%	23.4%	22.7%	24.6%	24.1%	23.6%	21.0%	21.9%	25.7%
Portugal	29.4%	28.5%	23.7%	21.7%	21.1%	19.8%	22.2%	26.2%	28.3%	27.1%	28.0%	26.1%	26.3%	26.9%	25.4%	25.4%
Spain	22.8%	20.8%	19.2%	19.6%	19.7%	20.9%	20.6%	21.6%	21.6%	22.6%	21.9%	21.7%	21.0%	19.1%	18.7%	20.8%
Sweden	17.8%	17.8%	15.6%	14.2%	16.1%	17.9%	17.5%	18.1%	18.2%	18.8%	19.2%	17.7%	15.8%	13.4%	12.3%	16.7%
Switzerland	26.6%	26.7%	28.4%	28.1%	27.9%	28.9%	29.8%	31.1%	31.7%	32.8%	33.7%	33.1%	31.6%	29.7%	29.4%	30.0%
Turkey	15.0%	12.1%	19.2%	18.4%	15.5%	16.3%	20.7%	23.9%	24.3%	28.9%	26.4%	21.5%	19.3%	20.9%	20.1%	20.2%
United Kingdom	19.0%	17.7%	16.7%	16.7%	17.1%	16.8%	17.6%	16.0%	15.9%	15.4%	15.4%	14.4%	13.5%	12.8%	12.7%	15.9%
United States	21.3%	19.8%	20.8%	18.5%	17.1%	19.0%	17.6%	16.1%	16.1%	16.6%	16.6%	15.6%	15.7%	14.6%	14.9%	17.4%
Total OECD (b)	24.1%	23.1%	22.9%	21.6%	21.0%	22.0%	21.7%	21.3%	21.4%	22.0%	22.2%	21.6%	21.1%	20.0%	19.8%	21.7%

Notes: (a) Data for 1991 to 1993 relate to the unified Germany.
(b) Aggregate based on data converted at current market exchange rates.

Source: OECD "National Accounts 1960-1993" Vol I - data on disk

Understanding the direction of causation that underlies the relationship between saving and growth is difficult - indeed, there is good reason to believe that there are positive effects running in both directions. The positive effect of saving on growth is the more straightforward: higher saving raises the growth rate of output by increasing capital accumulation.[2] The traditional policy recommendation flowing from this view is that in order to increase the pace of economic growth, countries need to think first about boosting their saving in order to spur capital formation.

Empirical evidence suggests that income growth also has a positive effect on saving. Visual examination of data from the high-saving, high-growth countries of east Asia, for example, suggests that these countries experienced high growth before their saving rates rose. In the 1950s, 1960s, and early 1970s, for example, increases in saving rates in Japan and Korea lagged a few years behind increases in GDP growth rates. And the slow down in Japanese growth in the late 1960s was followed by a decline in the saving rate. Recent research, including statistical causality tests, increasingly points in the direction of a link from growth to saving.[3] The experience of the industrial countries, where saving rates fell in the presence of slow output and productivity growth following 1973 is also consistent with this view.

While the latest research on the causality between growth and saving may not be totally conclusive, the data suggest that there may be a virtuous circle between growth and saving. Increases in growth raise the saving rate, which in turn feeds back to increased growth. This has potentially broad ramifications. It might suggest that an acceleration of growth in developing countries is possible even in the absence of an initial jump in saving, if say, the boost came from technological transfer.[4] It would also suggest that much of the saving that fast-growing developing countries will need in the future to fund their investment needs will probably be self-generated.

1 These calculations exclude war-torn countries and countries of the former Soviet Union and eastern Europe, for which the quality of the saving rate data may be unreliable.

2 This is the interpretation of the data presented in N. Gregory Mankiw, David Romer, and David N. Weil, 'A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*, Vol. 107 (May 1992), pp. 407-37.

3 See, for example, the Granger causality tests conducted by Chris Carroll and David N. Weil, 'Saving and Growth: A Reinterpretation.'' *Carnegie-Rochester Conference Series on Public Policy*, Vol. 40 (June 1994), pp. 133 92.

4 There is an extensive economic growth literature that assesses the impacts of factors such as macroeconomic stability, technology transfer, trade policy, and education.

IV Capital Allowances

A. What are capital allowances?

Capital allowances have been used since 1945 to provide businesses with the means to write off their capital expenditure against corporation tax. They are distinct from the deductions from profit for depreciation which commonly appear in company Annual Reports which are calculated according to accounting conventions and are not tax deductible. The key distinction between capital expenditure and the other costs faced by a business - wages, raw materials, etc - is that capital does not need to be continuously purchased for the business to continue. Any one machine will have a working life of several years before it has to be replaced. Each year this machine will decline in value as the length of its remaining life shortens, a process known as depreciation.

The tax system recognises this cost by allowing companies to write off a fixed percentage of a new asset's price in the year they bought it, and then continue to write off a fraction of its value throughout its life. Given that assets have different lifespans, the date when an asset is finally written off against tax will not necessarily coincide with that asset being worthless. Of course, technological improvements may well make assets obsolete well before this date.

Under the current system allowances are available for certain classes of assets only. These are:

1. industrial buildings and structures
2. hotels
3. small and very small industrial workshops
4. plant and machinery
5. agricultural buildings
6. dwelling-houses let on assured tenancies
7. scientific research
8. mines, oil-wells and other mineral deposits of a wasting nature
9. dredging
10. patents and know-how

Most expenditure on machinery, plant, patents and know-how qualifies for an allowance of 25% per year on a 'declining balance basis'. This means that companies can write off against tax 25% of the full cost of a given asset in the year it is bought. In subsequent years companies can write off a further 25 per cent of the balance remaining. Spending £100 on plant and machinery, say, gives a series of allowances of £25 in year 1, £18.75 in year two, £14.06 in year three, and so on. Expenditure on industrial and agricultural buildings, hotels

and dredging qualifies for an allowance on 4 per cent per year on a 'straight line basis'. Spending £100 on a building would give a series of allowances of £4 per year for 25 years.

Throughout the post war period governments attempted to encourage certain types of business investment using fiscal incentives. This resulted in a system of capital allowances which, prior to 1984, provided very generous initial and first year allowances, but discriminated strongly between types of asset and between sectors within the economy. For example, investment in plant and machinery could be written off entirely in the first year of purchase. Industrial buildings qualified for a first year allowance of 75 per cent, and an annual 4 per cent allowance. However, no allowances were given for investment in land or commercial buildings - with the exception of hotels - on the assumption these assets retained their value.

Though the main rate of corporation tax was 52% in 1984, companies paid tax at a much lower effective rate, or paid no tax at all, by utilising both capital allowances and stock relief.[16] 100 per cent first-year allowances were a distinct advantage when inflation was relatively high - as it was in the late 1970s and early 1980s - since the real value of allowances fell, the longer the period over which expenditure on new capital was written off against tax. In his 1984 Budget speech, the then Chancellor, Nigel Lawson, argued that the high rates of corporation tax were the product of a distortionary system of reliefs, and that tax neutrality should be restored as a guiding principle for taxing businesses:[17]

> The current rates of corporation tax are far too high, penalising profit and success, and blunting the cutting edge of enterprise. They are the product of too many special reliefs, indiscriminately applied and of diminishing relevance to the conditions of today ... With inflation down to today's low levels, this is clearly the time to take a fresh look.

The Chancellor went on to argue the case for a radical restructuring of capital allowances:[18]

> There is little evidence that these incentives have strengthened the economy or improve the quality of investment. Indeed, quite the contrary: the evidence suggests that businesses have invested substantially in assets yielding a lower rate of return than the investments made by our principal competitors. Too much of British investment has been made because the tax allowances made

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[16] This relief compensated companies for being taxed on the gains they made by the nominal value of their stockholdings increasing in line with inflation, irrespective of their physical size.

[17] HC Deb 13 March 1984 c.295

[18] op cit cc295-6

> it look profitable, rather than because it would be truly productive. We need investment decisions based on future market assessments, not future tax assessments.

Over a three year period, all initial capital allowances were abolished, and the current structure of annual allowances - 25 per cent for plant and machinery; 4 per cent on industrial buildings - was introduced. In a thorough overhaul of company taxation stock relief was abolished with effect from Budget day itself, and the main rate of corporation tax was reduced progressively to 35% by 1986-87.[19]

B. Are capital allowances a useful policy instrument?

Since the 1984 reform it has been argued on several occasions that more generous first year allowances should be reintroduced. In his 1992 Budget speech, the then Chancellor Norman Lamont, suggested this would be inefficient:[20]

> The evidence suggests that the cost of higher capital allowances to the Exchequer would be several times greater than the resulting increase in investment over the next few years. I have therefore concluded that, whatever its superficial attractions, an increase in capital allowances would not be a sensible use of the resources available.

Even so, several months later, as part of his Autumn Statement, Mr Lamont announced a 'one off' increase in initial allowances:[21]

> It remains my view that the reform of business tax by Lord Lawson in his 1984 Budget was the right one ... However, in the present circumstances, I am prepared to allow some changes which should help bring forward private sector investment. Accordingly, for a limited period of 12 months, I propose to raise from 25 to 40 per cent the allowances available in the first year for investment in plant and machinery, excluding cars. I also propose to introduce an initial allowance of 20 per cent for spending on new industrial and agricultural

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[19] The main rate has been 33% since 1991-92.

[20] HC Deb 10 March 1992 c.750

[21] HC Deb 12 November 1992 c.998

> buildings for which contracts are placed before 31 October 1993 and which are brought into use before the end of 1994.

On 21 December the then Financial Secretary Stephen Dorrell confirmed that legislation to effect this measure would be included in the 1993 Finance Bill.[22] In addition the 20 per cent initial allowance would be extended to include certain existing and part completed industrial and agricultural buildings.[23] The temporary increase in initial allowances was not extended. During the proceedings of the Finance Bill 1993, the then Economic Secretary Anthony Nelson gave the Government's reasons for this decision:[24]

> Putting back the expiry date clearly defers the incentive to invest quickly before the relief runs out. For the medium term, our view remains that our policy of low rates of tax levied across a broad base is the right one for business. Once confidence is restored, special tax incentives should no longer be required.

Indeed, in his 1994 Budget speech Kenneth Clarke ruled out this use of capital allowances:[25]

> I have considered again all the calls for increased capital allowances to encourage investment. They have a simplistic appeal. But I remain firmly of the opinion that increasing capital allowances would distort investment decisions and would not encourage the high-quality investment needed to improve economic performance. A narrower tax base would jeopardise our ability to maintain the low tax rates which have helped to transform British industry over the last decade ... I propose to maintain [this] emphasis on low rates for the successful rather than high allowances for all in our system of business taxes.

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22 HC Deb 17 December 1992 c.381W

23 These measures were implemented by sections 113-4 of the *Finance Act 1993*, though they were not debated at length in Committee [Standing Committee A 15 June 1993 c.468].

24 HC Deb 12 May 1993 c.910

25 HC Deb 29 November 1994 c.1097

Greater initial capital allowances change the **pace** at which a company pays corporation tax, since once a company has written off the entire cost of new investment against tax, it will pay tax on the whole of its profits in succeeding years. Certainly, this would encourage firms to bring forward their investment plans, though it could be argued that this has limited value, certainly in an economic climate where inflation is relatively low. It should be noted that increasing allowances is a relatively expensive way of encouraging investment, since all new investment will enjoy additional tax relief, irrespective of the reasons for its being made.

At the time the Institute for Fiscal Studies (IFS) argued that the 'one off' increases in initial allowances announced in autumn 1992 were unlikely to have any significant long term impact on business behaviour:[26]

> Compared to the previous rules, we can think of the change as an interest-free loan from the government to the company ... The problem with such measures is that the return to the previous regime of allowances may be awkward ... It seems unlikely that an extension of the higher allowances for a further period would be more successful. The measure works by inducing firms to shift investment forward in anticipation of less generous allowances if they delay. But having extended the period of higher allowances once, this threat of less generous allowances in the future would lack credibility, and the incentive to bring investment forward would be correspondingly weaker.

The authors went on to argue the tax system inhibits investment in a different way:[27]

> The main reason is not that capital allowances are too low, but because the majority of investment spending - financed by retained earnings - receives no allowance for the cost of finance; in contrast to the minority of investment financed by borrowing, for which interest payments can be deducted against tax.

In this discussion the IFS cited an article published in May 1993 in *Fiscal Studies* which made a wider criticism of the one year increase in initial allowances:[28]

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[26] Institute for Fiscal Studies, *Options for 1994: the Green Budget*, October 1993 p.86

[27] ibid

[28] S.Bond, K.Denny, M.Devereux, "Capital allowances and the impact of corporation tax on investment in the UK", *Fiscal Studies*, No.2 1993 p.3

> Most investment decisions concern the acquisition of assets whose useful life is expected to cover a number of years. Often these investment decisions are costly to reverse. The decision to acquire an asset today therefore depends not only on whether it is profitable to operate the equipment in the current period - which depends on the current cost of capital - but also on whether it will be profitable to operate the equipment in future.

The authors of this article attempted to model the effects of the capital allowance changes announced in 1992 Autumn Statement, and concluded that the only effect would be to bring existing investment plans forward, with no positive benefit in the long term.

The IFS has continued to voice its scepticism about the benefit of capital allowances.[29] The business community has, in general, been somewhat more positive. In its 1992 Budget submission the Confederation of British Industry (CBI) anticipated Mr Lamont's 1992 Autumn Statement, arguing that an increase in plant and machinery depreciation to 40 per cent "would provide a much-needed stimulus to companies to invest as the economy recovers from recession."[30] More recently the CBI has proposed that 100 per cent first year capital allowances be used to boost the cash flow of small businesses.[31] Companies would be allowed to write off the full cost of the first £200,000 of capital spending in the first year after purchase (or continue to write off 25 per cent of their total investment in plant and machinery, if this were greater). This idea has received support from a number of the largest industry associations, including the Machine Tool Technologies Association and the Engineering Employers Federation.[32]

By contrast the Institute of Directors (IOD) has argued "the pattern of capital allowances should follow that of economic depreciation insofar as the latter can be identified. We do not favour the acceleration of allowances, which either distort investment decisions or (more probably) inflict a deadweight cost on the tax system while leaving behaviour unaffected."[33] In its 1995 Budget Submission, the IOD argue that factors other than capital allowances are

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29 Institute for Fiscal Studies, *Options for 1995*, October 1994 p.55

30 Confederation of British Industry, *The Road to Recovery*, January 1992 p.22

31 Confederation of British Industry, *The Way to Balanced Growth*, September 1994 p.11; the proposal is made in the CBI's 1995 submission as well: *Keeping a Steady Course*, September 1995 p.11.

32 "Capital allowance argument rejected", *Financial Times*, 30 November 1994

33 Institute of Directors, *Sustaining Recovery : November 1993 Budget*, 1993 pp 28-29

much more important in investment:[34]

> Expected demand is the main factor driving investment [and] government policy should concentrate on delivering the conditions where business expects steadily increasing demand for its goods and services. This requires firstly, low inflation, secondly, steady sustainable economic growth generated by a competitive market economy and, thirdly, low levels of taxation imposing the minimum degree of distortion on the market economy.

Both major opposition parties have been supportive of the use of capital allowances. For example, in 1991 the Labour party proposed an "enhanced first year capital allowance for certain categories of plant and machinery, and for investment in innovation and design."[35] More recently, the shadow Chancellor, Gordon Brown, has argued that first year allowances for plant and machinery should be doubled from 25 per cent to 50 per cent for 'new' investment. Enhanced allowances would only cover investment proposals in excess of companies' average investment record over the previous two years.[36] For their part the Liberal Democrats have proposed a scheme similar to the CBI's, to 'introduce capital allowances', presumably at 100 per cent, for investments of up to £200,000, so as to give particular help to small businesses.[37]

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[34] Institute of Directors, *Budget 95 : A Budget for Business*, 1995 p.22

[35] Labour Party, *Made In Britain*, 1991 p.13

[36] "Brown plans to promote investment", *Financial Times*, 2 November 1995

[37] Liberal Democrats, *Investment, Partnership, Stability*, September 1995 p.20

V Influences on investment decisions

A. Short-termism in the 'City'?

One of the reasons frequently cited for the low level of investment within United Kingdom companies is the 'short-termism' of the capital providing sector. What is meant by this charge varies but in essence the allegation is that companies which are considering some form of long-term investment are inhibited from making such a commitment by the short-term demands of stock market investors and especially the major financial institutions such as the pension funds and the insurance companies. This section briefly outlines some of the areas where short-term considerations are suspected of interfering with the ability of companies to make investment decisions and discusses recent contributions to this long-running debate.

1. Does it exist and what forms does it take?

Companies seeking sources of finance for investment face a basic choice between debt or equity finance: debt finance typically would be provided by the banking system, whereas equity finance might come from the stock market or the venture capital industry. The size of the company, the nature, duration and likely return of the planned investment, and tax considerations would significantly influence the company's choice, but the equity oriented structure of the UK corporate sector would be an inescapable fact. The Trade and Industry Committee's report on *Competitiveness of UK Manufacturing Industry* noted that public companies account for 81 per cent of GDP in the UK, as against 26 per cent in France and 23 per cent in Germany.[38] Another recent report notes that although German GDP was nearly twice that of the UK in 1993, at the end of 1992 the market value of domestic equity on the London stock market was nearly three times that of Frankfurt, whilst London had some 1,878 domestic companies listed as against just 425 in Frankfurt.[39]

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[38] HC 41-I, 1993/94, para. 151

[39] *The role of the City in company formation and growth*, London Economics, 1995, p.8

Equity ownership, however, is concentrated in the hands of relatively few shareholders in the UK. Estimates suggest that over half the shares in the UK stockmarket are held by financial institutions, although where these are held by pension fund managers for instance they are strictly held in trust for individuals. The proportion of pension fund controlled shares has risen from 9 per cent in 1969 to 35 per cent in 1992.[40] Institutional holdings are widely dispersed throughout the market, with even the largest investors rarely controlling more than a few per cent of a typical company. These conditions, substantial institutional ownership of small stakes in individual companies, arguably create a structure in the UK where the investment preferences of this sector could be dominant without being matched by a corresponding degree of control or responsibility. The next paragraphs look at where institutional short-termism might be manifested.

i. Share price

- A low share price increases the cost of capital for a company. Investment in research and development and other long-term projects is said not to be valued by institutional investors. Where a company invests heavily for the future, this expenditure is allegedly not reflected in the share price, thus encouraging company managers to manage for the short-term to maximise profits from existing operations. As a result longer-term projects are not undertaken, to the detriment of the company and the economy.

  Although a recent study suggests that the stock market does discount future cash flows too heavily, it seems reasonable to assume that, acting without the benefit of hindsight, the market takes available information on long-term investment into account.[41] This assumption is based on the theory of efficient markets: if a share is undervalued (say because investment returns have not been correctly valued) then some investors will purchase the shares to benefit from the subsequent revaluation when the returns on the company's long-term investment become apparent. Such purchases themselves trigger share

[40] HC 41-I, 1993/94, para. 151

[41] *Testing for short-termism in the UK stock market*, David Miles, Bank of England Working Paper, October 1992 [cited in HC 41-I 1993/94, para.174]

revaluation. In a competitive sector such as institutional fund management, it is more plausible to blame a shortage of information rather than collective conspiracy for undervaluation of certain shares. Nevertheless if it is believed that institutional investors do not favour long-term investment, such investment may not be made.

- A low share price may make a company vulnerable to takeover: some argue it is therefore in the interests of companies to maximise short-term profits and placate institutional investors so as to avoid being taken over. This argument falls if it is shown that institutions are not prejudiced against companies with worthwhile investment programmes. Moreover, were a hostile bid to be launched for a company with a strong investment programme one would expect the potential value of that programme to be used to defend the bid, or to extract a higher price. The improvements in corporate governance which the Cadbury and Greenbury reports have suggested may eventually reduce the perception of the takeover as the ultimate intervention in corporate affairs. Controls on takeovers, proposed by some including the Trade and Industry Committee, in theory risk depressing prices and decreasing stock market liquidity, both of which would make capital more expensive.

- Institutions are said to exploit the volatility of the market's price movements, and turn over shares too frequently. Estimates of the period for which institutions hold their shares vary widely, from under five years to over ten. Most trading is likely to be at the margins, rather than to involve core holdings. Turnover itself creates liquidity and efficiency, and so would be expected to reduce the cost of capital and price volatility.

ii. Dividends

- Institutions are said to pressure companies into maintaining a steady and increasing dividend payout. Such pressure would be exerted through the share price, with shares in companies which reduce or fail to increase their payout being marked down in the market. It is of little comfort for companies to be told that most

institutions hold their investments for many years, or that trading is at the margins only, since the share price is still affected by marginal trading. Evidence presented to the Trade and Industry Committee appeared to suggest that institutions do prefer a consistent payout, which is not altered by temporary trading difficulties.[42] It is also accepted that dividend income is an important and tax-efficient source of return for institutional investors.

It is not perhaps so clear that dividend distributions and investment projects are always in direct competition. Retained profits are not the only means of funding investment, and since companies do not automatically invest all retained profits it is incorrect to see all distributed profit as foregone investment. A counter-argument might also accuse companies themselves of short-termism if they fail to manage their dividend policy smoothly, and allow for the legitimate claims of the owners on a share of the business's profits.

- The tax system favours distribution rather than retention of profits. A memorandum from the Treasury to the Trade and Industry Committee notes that institutions may face a tax charge of 16.25 per cent on distributed profits but a potential charge of 33 per cent on retained profits.[43] Some argue that this bias has the effect of depriving business of internally generated funds to invest in their businesses. It is true that a high proportion of funds for investment are internally generated.[44] The bias has been slightly corrected by the reduction in 1993 of the value of the tax credit from 25 per cent to 20 per cent. In his evidence to the Committee, Anthony Nelson, then Economic Secretary to the Treasury, cited the argument that the capital market was sufficiently efficient to recycle the distribution towards new

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[42] HC 41-I, 1993/94, para. 162

[43] *Finance for Industry*, HC 210 1994/95, memorandum, para.39

[44] London Economics (op. cit., p. 7), using data for 1989-93, notes that when the world's largest advanced industrial countries are ranked in order of internally generated funds the US uses the highest proportion, the Japanese the lowest, with the European countries including the UK falling in between.

investment if it chose.[45] This feeds into the argument that if an investment is worth making it should be possible for the company to fund it, using other sources of funding if necessary, although this begs the question of what an acceptable rate of return is. Further changes to the bias imply both radical changes to the corporation tax system and significant and possibly counter-productive consequences for the provision of retirement income in the UK.

2. Recent initiatives

This section summarises a few recent initiatives in this field. Despite a reluctance to accept that the popular conception of short-termism is accurate, studies do recognise that the perception of short-termism may itself perpetuate certain features associated with it. It is also acknowledged that the capital markets can be made more efficient, particularly in the supply of finance to small and medium sized enterprises. Some of the more enduring concerns can be addressed by improving the working relationships of the capital markets and industry: a greater flow of information may resolve short-term market inefficiencies and establish the validity or otherwise of perceptions of each other's expectations. A recent trend which may assist the flow of investment capital to viable projects is the focus on corporate governance issues. This would increase the involvement of shareholders including institutions in the running of companies, and control some features of companies which are themselves apparently short-term, particularly excessive executive remuneration, and bonus and incentive schemes which are linked to share price or short-term profitability. Greater shareholder accountability may also mitigate recourse to takeovers as the ultimate sanction against unperforming managements.

- The **Industrial Finance Initiative** was a year long investigation by the Treasury into the funding of industry, begun in late 1993. It concluded that investing risk capital in small and medium sized companies should be encouraged; that there should be more competition in the supply of finance for such firms; and that financial management skills could be improved at firms. Some measures have been introduced to address these concerns.[46] It should be noted that short-termism, however, is usually seen as a problem for larger companies.

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[45] HC 210 1994/95, Minutes, para.9

[46] See HC 210 1994/5, Memorandum; and *Competitiveness: Forging Ahead*, DTI, May 1995, p. 168

- The **Trade and Industry Committee** produced a short follow-up report to their main report, *Competitiveness of UK Manufacturing Industry*. In *Finance for Industry* the Committee called for the Treasury to examine ways of encouraging institutions to place a greater value on capital growth as opposed to dividend payments.[47] Their earlier report had called for limited controls on hostile takeovers, and an examination of alternative means of funding pensions.[48]

- Several initiatives in **corporate governance** are relevant to the short-termism debate, especially the Myners Report which describes model companies and institutional investors, and their interrelationships.[49] The Cadbury report on The *Financial Aspects of Corporate Governance* and Greenbury's on *Directors' Remuneration* address issues of corporate control and accountability which introduce greater investor participation and reduce short-term corporate emphases.[50]

B. Expected rates of return

In a high inflation or volatile macro-economic environment, companies or institutional investors evaluating corporate investment opportunities may either reduce the risk element by opting for short-term projects, or will insist on high rates of return. It is to be expected that were a stable macro-economic environment, with sustained low inflation and stable interest rates, to be achieved the rate of return sought by investors would fall.

In March 1994 the Bank of England conducted an informal survey of its industrial contacts to examine which appraisal criteria firms used when assessing investment opportunities, and to what extent the prospect of a stable lower inflation environment had been reflected in the

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[47] HC 210 1994/95, para. 16

[48] HC 41-I 1993/94, paras 317-8

[49] *Developing a winning partnership: How companies and institutional investors are working together*, February 1995

[50] Cadbury, December 1992; Greenbury, July 1995

rates of return which firms were looking for.[51] The survey focused mainly on large and medium sized companies. It found that only 26 per cent of the firms had reduced their required rates of return (or shortened the payback period allowed for new projects), whilst 72 per cent had left their required rates of return unchanged. The percentage which had reduced their required rates was slightly greater amongst those firms which relied on real rates of return when they assessed opportunities (34 per cent) compared to those who employ nominal rates of return (27 per cent). The approximate average post tax threshold rates being sought for investments was 20 per cent (nominal) and 15 per cent (real). The Bank noted that it appeared that a longer period of monetary stability might be required for more fundamental changes in investment behaviour, although it also noted that return formulae were applied flexibly by companies.

Giving evidence in February 1995 to the Trade and Industry Committee, Anthony Nelson commented:

> There is some evidence that threshold rates have been falling and there is some suggestion that they [companies] build in too great a degree of uncertainty about interest and inflation rates for the future. Certainly the higher those rates are, the more they are an inhibitor to long-term investment, and they form a particular problem for small and medium-sized enterprises, but I think all the evidence is that hurdle rates have actually reduced and are on the right track.[52]

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[51] "Investment appraisal criteria and the impact of low inflation", *Bank of England Quarterly Bulletin*, August 1994, pp. 250-254

[52] HC 210 1994/95, Evidence, para.26

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Two cheers for the institutions, Stanley Wright, Social Market Foundation, April 1994

VI The Private Finance Initiative

A. Background

Proponents of the Private Finance Initiative (PFI) argue that an injection of private finance and expertise into the public sector will increase investment and efficiency in those projects that have traditionally been wholly dependent upon the public sector for finance and management. This section outlines the leading features of the PFI and its implications.

The PFI was announced by Norman Lamont (then Chancellor) in the 1992 Autumn Statement with the aim of achieving closer partnerships between the public and private sectors. Under PFI, a private sector operator could design, build and operate a project in return for payment. In some aspects, the PFI marries a public procurement programme, whereby the public sector purchases capital items from the private sector, to an extension of contracting-out, whereby services are contracted from a private sector operator. A Private Finance Panel under the chairmanship of Sir Alastair Morton was established to promote the PFI.[53]

The PFI applies to both central government and local authorities. Such ventures need to achieve a genuine transfer of risk to the private sector operator and secure value for money in the use of public resources. In the past, the Treasury was less keen to allow private capital in the financing of public sector projects. The position was set out in the so-called *Ryrie-rules,* which operated up until 1989.

These rules presupposed that certain projects, such as road building, should be undertaken by the public sector and that, where private sector finance was involved, public expenditure cover would usually be required. The PFI seeks to relax further the constraints on private finance

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[53] The Chancellor of the Exchequer announced on 15 September 1995 that Sir Alastair Morton would be temporarily standing aside as Chairman of the Private Finance Panel. The role of Chairman for this period will be taken over by Sir Christopher Bland. *HMT Press Release, 119/95 , 15 September 1995*

involvement in public sector project. Under the PFI there are three broad types of projects:[54]

> **Free-standing projects**
> Here, the private sector undertakes the project on the basis that costs will bc recovered entirely through charges for services to the final user, for example toll roads or bridges.
>
> **Joint ventures**
> Joint ventures are projects to which both the public and private sectors contribute, but where the private sector has overall control.
>
> **Services sold to the public sector**
> These are services provided by the private sector to the public sector, often where a significant part of the cost is capital expenditure.

In his speech to the CBI on 8 November 1994, the Chancellor described two principles of the PFI as follows:

- the private sector must genuinely assume risk without the guarantee by the taxpayer against loss.
- value for money must be demonstrated for any expenditure by the public sector.

The Chancellor also stressed that there were no target rates of return or profit caps for projects conducted under the PFI. He estimated that by the end of 1994/95 £½ billion of private capital will have been brought in under the Initiative.

There has been some press speculation that the Chancellor of the Exchequer will announce a large expansion of the PFI in the Budget on 28 November 1995. Michael Jack MP, Financial Secretary to the Treasury, is quoted in *The Independent* as saying:

> "If they [Departments] want to be associated with things that are going to happen, private finance is the preferred route."[55]

According to *The Independent*, the Treasury will soon be publishing a new assessment of the PFI. This is expected to show that the £500 million of PFI projects committed at the end of March has grown to £1.3 billion. A number of privately-financed road-building schemes

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[54] Source: HM Treasury *Breaking New Ground* November 1993

[55] *The Independent* 1 November 1995

are also close to being signed, which would bring the total to £1.7 billion.

B. Major Projects

Major projects underway include the Jubilee Line Extension, the Heathrow Express rail link, the second Severn crossing, a new Royal Armouries Museum in Leeds, two privately financed prisons and a leasing agreement for new rolling stock for the Northern Line. A wide range of other projects under consideration include the Channel Tunnel rail link, the Lewisham extension to the Docklands Light Railway, design, build, finance and operate roads and a replacement for the DSS's national insurance recording system.

Overall, the Government expects to let contracts under the PFI in 1995 leading to around £5 billion of capital investment[56]. The table on page 44 sets out some details on the major projects comprising the Chancellor's estimated £5 billion. The figures show that the Channel Tunnel rail link accounts for more than 50% of the total capital value of all PFI projects for 1995.

C. What are the benefits to the public sector?

Four main advantages are claimed for the public sector if a project, such as building a hospital, were to be carried out under the PFI. These are:

- it provides an alternative source of funding at a time when there is considerable constraint on public expenditure;
- it brings private sector skills and expertise into the planning and execution of such projects;
- it can provide better value for money via, for example, greater economies of scale (eg the same building can be used for NHS and private services with shared facilities and equipment);
- it enables risk to be transferred to the private sector. This point is considered further below.

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[56] Source: FSBR 1994/5 HC 12 1994/95 p.117 and also HM Treasury press notice 136/94 "£5 billion of private finance contracts to be signed in 1995" 29 November 1994

Private finance initiative: major projects		
Project	**Capital Value (£m)**	**Stage reached now**
Northern Line (trains)	400	Contract signed
NIRS2 National Insurance Computer	120-150	Deal announced
Prisons (Bridgend/Fazakerley) plus at least one secure training centre	up to 150	Preferred bidders announced
Newcastle site redevelopment	30	OJEC notices published
DBFO Roads	380	Bids received for first tranche and ITTs issued on second.
Scottish Air Traffic Centre	200	Invitations to tender issued
Channel Tunnel rail link	2,700	Bids received
Docklands Railway (Lewisham extension)	100-130	ITTs issued
West Coast Main Line	500-750	Feasibility study complete
Post Office Counters (Automation)	100-130	Expressions of interest received.
Scottish Water and Sewage	45	OJEC notices published for three projects
Health (Misc. small schemes)	maybe 100	Various stages
TOTAL	**4,740 -5,080**	

Source: HM Treasury, as quoted in the Financial Times November 10 1995. Latest data as available as at 1 November 1995.

An essential condition of the PFI is that risk is transferred to the private sector. A NHS Executive Briefing[57] gives the following examples:

> A fundamental principle of the PFI is transfer of risk to the private sector. Where the private sector is well placed to manage the risks, a Trust should transfer many of those risks that it would otherwise run if it was to construct and manage new facilities itself - eg:
>
> - construction costs overrunning;
> - losses through completion delay;
> - quality standards of facilities failing to meet performance targets;
> - poor design that hinders effective delivery of services;
> - problems through facilities failing to keep up with new technology;
> - losses through facilities proving too big or too small for needs;
> - costs of adaptation for alternative use;
> - escalating maintenance and repair costs;
> - failure to meet facilities management cost targets;
> - income generation schemes failing to meet net income targets.
>
> Under PFI contracts, the NHS should try to transfer such risks to the private sector.

D. What effect does the PFI have on public finances?

When a public sector project, such as a NHS hospital is built using public funds the spending scores as public expenditure to be funded from within the Department's budget, the size of which is determined during the public expenditure round. An increase in spending on capital projects would, all other things being equal, be reflected in a higher control total, general government expenditure total and PSBR. If the project were financed under the PFI, the capital expenditure would not normally score as public expenditure,[58] although the charges levied by the private sector operator for the use of the building and services that are provided

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[57] Ref: BN No.3/95 dated 20.3.95 (attached to HSG (95)15

[58] This assumes the agreement between the trust/authority and the provider does not count as a financial lease. This would normally be the case in PFI projects.

would. In the short term, the net effect of the PFI is expected to be more capital projects undertaken for a given level of public expenditure. Hence capital projects could be brought on-stream earlier. However, in terms of the provision of services to the public sector, this increased level of activity cannot continue indefinitely as the stream of payments to private sector providers would grow and would themselves increase the total of public spending.

E. Criticisms of the PFI.

The PFI has been the subject of some criticism. The following points seek to summarise some of the arguments that have been raised.

1. Scope for creative accounting

In a critical article on the PFI, the *Economist* magazine[59] expressed concern about the scope for governments, of whatever colour, to use the PFI in order to disguise the underlying position of government's public finances. The *Economist* commented that although it was plausible that a private operator could minimise future management costs, such advantages should be

> ...set against the potential which the PFI offers governments for creative accounting designed to disguise their spending commitments. In particular, the timing of spending can be obscured. If a project, such as a road, is publicly financed, the construction costs are counted as public spending as they occur; if it is privately financed, they are added to public spending years later, when the road is complete and the government starts to pay the contractor for it, perhaps through a 'shadow' toll pegged to how many cars use the road. And if a project, say a toll bridge, is financed by the operator levying a charge on users, its cost will never appear in the public-spending total. The temptation is obvious. Economic commentators watch public spending and borrowing closely, not only to judge the government's own finances but as indicators of how well it is managing the economy as a whole. The PFI can lower both these numbers, at least for a time. Even if successful in transferring risks to private investors and achieving efficiency gains, most PFI projects will simply be a form of 'buy now, pay later'. This will seem to reduce public spending in the early years. Because the obligation to pay for the service or facility provided by the private investor will not be counted as public borrowing

[59] "Cooking the books" *Economist* 28 October 1995

(though it will be just as binding), the borrowing figure will be lowered too. This may allow the government to make tax cuts or spending increases which would otherwise have been viewed as risky or unacceptable. No wonder both main parties are so keen on the PFI. To 'prove' that the government is not using the PFI as an accounting scam, the Treasury constantly stresses that PFI projects involve genuine transfers of risk to private investors. Likewise, the private finance Panel publishes apparently detailed analyses of the efficiency gains achieved by recent projects. For example, a study of the bidding process for supplying a new computer system to process national-insurance contributions suggests that private investors will shoulder much of the risks of the project and that overall costs will be reduced by about a third compared with a publicly financed alternative. Yet these attempts at explanation raise more questions than answers. For instance, private contractors appear to be willing to bear risks over which they have no control - in the case of the national-insurance computer, the supplier will bear much of the risk of demand volumes being lower than expected because of, say, the impact of new social-security legislation. This seems hard to swallow. Moreover, it is impossible to assess the financial impact of any risk transfer because contracts between the government and its suppliers are usually kept secret to protect commercial confidentiality.

2. Higher capital cost

Public sector bodies which have access to finance via the National Loans Fund would normally be expected to obtain finance that was cheaper than could be provided by the private sector. Borrowing through the NLF, which comes with government guarantees and is backed by tax revenues and borrowing, is inevitably the cheapest way of raising funds.

Under PFI the public sector body may gain access to leasing and financing but the cost of such funds is unlikely to be as low as those from the NLF. Moreover, because there is supposed to be genuine transfer of risk to the private sector, the private sector provider will insist on an adequate risk premium when setting its prices. The cost of capital brought to the project by the private provider will inevitably be more costly over the life of the project than that which could be provided form public sector sources. In an article in the D*aily Telegraph*[60], Peter Puplett, formerly group economist at Tarmac, commented:

[60] Peter Puplett, was group economist at Tarmac for 14 years and was formerly an assistant secretary in the Civil Service, "Put not thy trust in private finance initiatives" *Daily Telegraph*, 30 October 1995

> The initiative will cost taxpayers much more in the long term than the traditional system of paying for public investment, either out of current tax revenues of from borrowing.

The PFI does not provide a cheaper source of finance to public sector bodies but simply provides them with another source of possible funding, although probably at some higher capital cost. Under existing Treasury rules public, profit-making corporations cannot borrow and invest like private sector enterprises because the Treasury treats their borrowing as public expenditure.

3. Commercial risk premium

The availability of private funding will be conditional upon the future income stream generated by the new investment, adjusted for an adequate margin for risk. The higher the perceived risk the greater the required risk premium. Public sector investment would normally require a return of 8 per cent, whereas private finance, because of the greater commercial risk involved, would require substantially higher returns and/or a shorter pay back period. There is a chance that some projects will not attract private finance for the simple reason that there may be a mismatch between the private sector's preference for short pay-back periods of perhaps only a few years and that which the public sector can reasonably afford. Private operators may also require long term contractual commitments of several decades to reflect the long term life of the capital assets. Some public sector bodies may be unwilling or unable to make such long term commitments.

4. Actual or shadow charges

Some form of prices will be necessary if the revenue or benefit of the project is to be generated from the user and not from tax revenues or public borrowing. The identification of a future stream of income and actual charges may not be too difficult to establish in some areas of the public sector, such as transport. Toll roads and bridges are obvious examples where the benefits of any new investment can be easily captured through a charging regime, which generates a stream of income and in turn services the funding and provides the appropriate profit signal.

There may be more difficulty in identifying an income stream in other areas of the public sector, especially where there is no commercial trading or the introduction of shadow tolls is difficult. Will Hutton of *The Guardian*, who is very critical of the PFI, made the following comment[61]:

> Areas like education, defence or health where there is no formal trading have to be reorganised so cash flows can be produced in order to service the funding - and this can produce distortions. In the health service, for example, there is already an internal market with purchasers offering income streams to providers; the question is whether the income streams can end up in private hands to satisfy the demands of funders and still leave the character and ethic of the health service intact. It cannot. The unified culture of the NHS must shatter, as must its commitment to equality of service. Parts of hospitals will be in private hands and others not; those in private hands will be looking to maximise revenues and lower costs to meet their higher returns, and that will mean more private patients and more deals with those fund-holding GPs who can pay top prices for service. Even in trading enterprises like the Civil Aviation Authority (CAA) there are problems. Under the PFI, the CAA must allow a private contractor to build and own the sophisticated equipment, and then pay to use it. It loses control of the design specification, risks cost overruns and technical faults - and for what? No other authority in Europe or America has to operate like this; why does Britain have to go through these hoops? Taken with the move to break up government departments into 'executive agencies' under the Next Steps programme, the PFI is becoming the means of literally privatising the state. Agencies will contract with private service providers seeking private-sector returns to deliver public goods. This is a contemporary version of tax farming and will lead ineluctably to the Old Corruption of the 18th century. Our ahistorical masters remember nothing. Haunted by the something-for-nothing mentality, the PFI is actually holding up public investment. £2.75 billion of capital cuts over the past two years have not been compensated for by £500 million of PFI deals, and in the NHS there is a substantial capital underspend as managers apply the ludicrous Sackville rules - that every capital programme must have attempted to raise private money before it can apply for public funds.
>
> The way out is to allow profitable trading enterprises to borrow by redefining what is possible under the public sector borrowing requirement; and, where the public sector has no income stream, additional resources would be raised by the establishment of infrastructure funds financed by government or new

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61 "Tax farmers gain fertile ground: Britain's dire investment record can only get worse under public-private partnership proposals" *Guardian* 5 January 1995

> revenue sources. It may be helpful to invite private enterprises to form partnerships with the public sector; but do not expect them to be able to meet their financial targets with their own money. There were hints at last week's Labour Party conference on public/private partnerships that its thinking is moving in this direction. It is a good beginning - but there is still a long way to travel.
>
> At its core the PFI is not about finance at all. It is about finding ways of introducing real private sector resources aiming for private sector returns into what used to be funded by the public sector. This is a wholly different proposition - and in the long run potentially dangerous. The British private sector brings demands for the highest financial returns of any major industrialised country over the shortest time horizons, a pressure which is increasing.
>
> If it takes over the funding of public activity, it will want to see it structured to produce the returns it wants, even though they are public goods like hospitals and air traffic control systems. This debilitating burden upon British business is about to be imported into areas where it need not and does not belong.

5. Summary of criticisms

In a special survey on the PFI, the *Financial Times*[62] commented:

> Critics of PFI - and they are everywhere - fall into two broad groups. They can be dubbed the 'it's too lax' and the 'its too tough' camps. The 'lax' camp, featuring public spending purists (although not the Treasury itself), claims the PFI offends against proper ideas of state financial management. It argues that the public sector's capital spending ought in principle to be funded internally, because the cost of capital is always cheaper thereby. And it is sceptical about the propriety of converting a traditional capital investment into 'operating' and 'leasing' payments spread over many years. Dark motives, notably a desire to evade existing public spending controls, are imputed.
>
> The 'its too tough' camp takes an almost diametrically opposite stance. Including some of the leading private sector organisations - construction and leasing companies, solicitors, bankers, and corporate advisers - seeking to secure PFI work, it claims that the PFI is impossibly ambitious.

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[62] "The Private Finance Initiative", *Financial Times Survey*, 10 November 1995

It is concerned, in particular, about the requirement that significant new risks should be assumed by the private sector as part of PFI contracts. Mr Chris Boobyer, director of large value leasing at Barclays Mercantile, says: 'This form of transaction will cost the public sector more because the financier or contractor will have to build safety margins into these deals to alleviate the risk.'

Ironically, the Treasury, which now champions the PFI, shared all three concerns until recently. Its so-called 'Ryrie rules' acted as a de facto obstacle to large PFI-type projects throughout the 1980s. This was due not so much to the rules themselves - which were designed to safeguard value-for-money and ensure that private money invested in public sector projects registered as 'public spending' - as to the way they were invoked by Treasury officials to discourage private finance schemes.

Treasury officials, sceptical by training, deny that they have undergone a Damascene conversion. Rather, they insist, the Treasury is now adjusting itself to the spirit of the Ryrie rules, which were never intended to preclude private finance where it genuinely offered the public sector better value than traditional procurement.

They hotly deny that PFI is stoking up a profligate investment binge, claiming that there is nothing secret about the future annual cost implications of individual PFI contracts. They also reject any ideological objections to non-state funding for capital spending, noting that existing outsourcing inevitably includes a leasing fee for assets employed, ranging from the incidental (the windows cleaner's ladder) to the integral (the rubbish collector's vehicles).

The Treasury thus now believes it is a question of the value for money offered by PFI deals in particular cases. But it is insistent that such value will generally require the transfer of some new risk to the private sector.

Recent papers on related subjects have been:

Economic Policy & taxation

Research Paper		
94/80	The Competitive Economy	20.06.94
95/46	The Pensions bill (HL), pension fund regulation	24.04.95
95/106	Economic Indicators, November 1995	01.11.95
95/114	Economic background to the 1995 Budget	23.11.95