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IRISH PUBLIC DEBT

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General Summary

FOR long, public debt was a topic of debate only among financial experts. From time to time, bankers came out with stern warnings about government borrowing, but these were usually tucked out of sight on an inside page of the newspaper. However, in the general election campaign of 1977, the public were confronted with opposing arguments about the degree to which the government could safely borrow and expand the public debt. Many people found it difficult to form an independent view of the merits of the opposing arguments. This paper seeks to shed light on the whole issue of public borrowing and debt.

Borrowing and Debt

There are three ways in which the government can pay for its spending: by taxation, by charging prices for the services it provides, or by borrowing. Public debt is simply the accumulation of past borrowing net of repayments. When the government increases its borrowing, the economy will generally have to lean that much more heavily on foreign funds. This happens even if the government borrows at home. In that case, the banks bring in money from abroad to prevent its prime borrowers having to go short.

The amount a government can safely borrow ultimately depends on the use made of the funds. The spending should raise the economy's productive capacity by at least enough to pay interest and principal to the foreign financier.

Although this seems a quite straightforward rule, successive governments since 1972 have failed to abide by it. During those years, governments borrowed to finance consumption of one sort or another. This form of spending created deadweight debt in the sense that the cost of servicing it was not matched by a contribution to national product.

In the last year there has been an intensification of this practice. Urgent demands for jobs persuaded the government to increase current spending, financed temporarily from borrowing. However, the taxpayer may not be in a comfortable position to shoulder the full cost of this spending in the near future. Tax increases and cut-backs in public spending seem to be in prospect. The brunt of spending cuts will probably be felt most in private sector employment and living standards as the government tries to sustain employment and pay levels in the public service.

Of course, much government borrowing has been for capital purposes. This spending continues to yield a benefit to the community, and in this

sense it is self-financing. In the last thirty years, the state has played a major role in encouraging and financing capital formation. The public capital programme has been at the centre of economic plans. Nevertheless, the whole approach to public investment has been haphazard. Too often, investment was ruthlessly cut in reaction to fears of excessive demand. No government has evaluated the prospective returns from its investments systematically, even though this is the very least that a prudent bank manager would ask of any ordinary borrower.

Debt Service

All borrowing carries an obligation to pay interest and ultimately repay the debt. Public investment usually yields little *direct* revenue to the government because much of it goes in grants or in the building of roads, hospitals, schools and houses. The government has seldom tried to earn income by charging prices for these services. It means that payment to the government's creditors must be found from taxation. Thus, public debt is a redistributive factor in society touching on those who pay the servicing costs and on those who hold the debt. Resistance to the redistributive effects of debt is one force that could constrain the government's borrowing.

Since debt has now climbed to over three-quarters of Gross National Product, the charge on taxation has become quite formidable. Debt service as a proportion of central government tax revenue now amounts to 20 per cent. It brings it home to the taxpayer that public borrowing is by no means a painless system of financing government. Borrowing lifts troubles from the taxpayer's mind for a time, but the charge for the debt returns to plague him shortly afterwards.

None the less, inflation has greatly lightened the real burden of servicing the debt over the years. It has inflicted serious loss on people who put their savings into government debt. Slower inflation becomes a mixed blessing for governments. It may be popular with many sections of the electorate, but it creates some headaches for public finance. The cheapness of debt almost certainly tempted governments to borrow more and to use borrowing less prudently during the past ten years of rapid inflation.

Foreign Debt

Government overseas borrowing is one form of the economy's use of foreign investable resources. Certain features are common to all methods of using foreign funds. First, foreigners may decide to pull their money out of the country at short notice. Second, foreigners must be paid some return on their investment each year. The economy's foreign exchange earnings must be capable of meeting both types of demand. The government carries ultimate responsibility for seeing that the level and use of foreign resources does not bring the country into short or long-term credit difficulties. This responsibility must be taken more seriously in future because the economy as a whole

has now become a debtor nation for the first time. A better watch on its own investment and debt policy is the first step in carrying out this responsibility. Government foreign borrowing has the particular feature that currency depreciation can raise the burden on domestic resources. This feature is examined in some detail in the text.

Debt in Perspective

The paper devotes considerable space to tracing the evolution of public foreign and domestic debt, and of the cost of carrying the debt in post-war Ireland. It describes the events surrounding this development, and looks at what may happen in the years ahead. Some of this discussion will be of greater interest to the student of public finance. However, many of the problems are perennial and of mounting public concern. Public debt is now larger relative to income in Ireland than in almost any other western country. At the same time, rapidly growing population will put very heavy demands on all types of government service in the years ahead. The way the government uses borrowing to finance the public sector will have a big influence on the economy's ability to cope.

While the last word has certainly not been spoken in the debate about public debt, this paper dispels some of the mystery from the debate.

Introduction

SINCE the war, the State has played a major role in promoting capital formation in Ireland. This has been one of the main forces behind the growth of public debt. In more recent years, new forces have been at work: a concern to provide public goods to a wider section of the community and the government's response to external deflation have added impetus to the growth of debt. A study of public debt policy will inevitably become intertwined with much broader objectives of policy. However, close examination appears to be timely in view of the growing public concern about Ireland's external liabilities and the government's current budget deficits.

Public borrowing has a particular bearing on the allocation of resources for development and the short-run stabilisation of the economy. The first and second chapters discuss these issues in turn. The first chapter addresses the questions: how much should the government borrow; what should borrowed funds be used for; and should the government borrow at home or abroad? The present over-riding concern to provide employment opportunities for a growing population makes the answers all the more urgent. The second chapter explores whether these answers should be modified during a recession or boom in order to stabilise the economy.

The following three chapters pass from borrowing (the flow addition to debt) to the stock of debt itself. The third chapter gives an overview of the existing public debt. The fourth chapter focuses on the financial cost of carrying domestic and foreign debt; and the fifth chapter looks at management of the structure of public debt. Recent developments in public borrowing and debt are reviewed in the sixth chapter. Then in a final chapter, the various strands of argument are brought together and some conclusions are drawn.

Chapter 1

Public Borrowing and Long-term Development

THIS chapter is divided into three sections. The first looks at the impact on the economy of public borrowing as an alternative to taxation. Following on from this, the second examines what bearing public borrowing policy has on long-term development strategy. Finally, the third section describes the reasons public action to influence investment is necessary and studies the composition and the finance of public capital spending. Each section has separate parts dealing with the principles involved and then examining the actual experience over the last thirty years.

I PUBLIC BORROWING AND PRIVATE INVESTMENT

In a fully-employed and closed economy, government borrowing will reduce private investment at least in the short run. Taxation and borrowing both force private demand to make room for government spending. Taxation hits private disposable income and an immediate fall in consumption follows. Borrowing reduces loanable funds available to private borrowers and investment feels the immediate impact. The *ultimate* effects of borrowing rather than taxing are less clear. They hinge on the general public's attitude to the future tax liability implied by borrowing. If it does not foresee the tax liability – thus regards government bonds on all fours with real wealth – then the impact effect on private investment remains. If the public does foresee the taxes, then the immediate drop in investment will be compensated to the extent that extra saving is undertaken to meet the liability in the future. In principle, if capital markets worked perfectly, the form of government finance would have no effect on the composition of private demand. However, in practice even if foresight is clear, full provision will not be made for future tax liabilities. Many people would prefer to worry about the taxes when the future comes, or would be quite happy to have their heirs pay the taxes. By and large, therefore, borrowing instead of taxing reduces private investment in a closed economy but probably by less than an equal amount.

In a pure example of a small open economy – facing fixed foreign exchange prices in goods and capital markets – the impact of borrowing in-

stead of taxing is to increase the current account deficit of the balance of payments. Private borrowers have no difficulty getting funds and so private investment is not affected. The counterpart of a bigger payments deficit is a rise in the country's *net* external liabilities. The ultimate effect again hinges on whether provision is made for the future external liability. Usually little provision will be made and so the effect on net external liabilities remains. So long as private investors have easy access to funds from abroad the story is no different whether or not the government directly borrows abroad itself.

The difference between open and closed economies lies in the sort of asset displaced by public borrowing. The private capital stock takes the knock in the closed economy; in the open economy it is the country's external credit position. The effects will be mixed in economies falling between the two extremes.

Ireland fits the description of a small open economy quite closely. Goods flow without restriction to and from the outside world. The tradeables sector amounts to roughly 40 per cent of GNP. The foreign exchange price of traded goods is largely beyond domestic control. Financial flows are also largely unrestricted and interest rates follow those prevailing in London money markets. Accordingly, borrowing to finance government spending should not greatly impair private investment. It should be sustained by an inflow of real resources causing a current balance of payments deficit and matched by an inflow of foreign capital to provide the extra loanable funds.

Dowling (1974) found evidence supporting this belief. He fitted the equation:

$$[G - T] = \beta_1 [I - S] + \beta_2 [X - M]$$

government borrowing — private sector surplus — external surplus

β_1 had an insignificant positive coefficient less than unity and β_2 a significant negative coefficient greater than unity. Far from "crowding-out" private investment, government borrowing seemed to stimulate private investment. However, the fitted equation is an identity and without further specification it is difficult to read much meaning into these coefficients. If S, I, T and M all depend on income, the financial balances will depend on the movement of income and on the income responses of the various functions. For example, falling incomes squeezing tax revenue and savings could explain why public and private financial balances move in sympathy. However, there is other evidence that public borrowing did not squeeze private investment. A straight correlation between real private investment and real public borrowing showed a positive relationship of 0.4. This corroborates Dowling's impression that public borrowing stimulated private investment (though it is also consistent with public borrowing *reacting* in sympathy with moves in private investment). Furthermore, credit was not rationed to private borrowers until the late 1960s, and even then with limited success. Indeed, growth of

both private and public borrowing from the banks outran the growth of the latter's domestic assets throughout the 1960s. As a result, the banks moved from a net external asset holding equal to 38 per cent of domestic assets at the beginning of the 1960s to a net liability of 8.7 a decade later. It has plateaued at about this level during the 1970s.

In the years ahead, the economy will probably continue the trend towards greater trading openness. However, there is a danger that if the government continues to rely on domestic banks for funds to the extent it has in the past, then small native enterprises may be starved of funds. They rely almost exclusively on the banks for finance, neither borrowing abroad directly nor raising finance by equity issue. The banks may be unable or unwilling to increase their net external liability much further to facilitate them. Moreover, because of the lower risks involved, the Irish banks would be more likely to satisfy large companies or state boards in tight domestic credit conditions. Thus, to avoid impairing private investment in the future the government will have to exercise care in the form its borrowing takes. This explains and offers some justification for the step-up in direct public borrowing abroad in the recent past.

II SAVING, INVESTMENT AND FOREIGN INFLOW

Background

The level of current investment decides future consumption. In the fully-employed closed economy, saving and investment are equal. An optimal social savings programme is one where the resulting path of consumption cannot be improved upon according to some yardstick of welfare. For simplicity, consumption in all periods (generations) is often equally valued but discounted by a rate that represents "social" impatience. The optimal savings plan then depends on the social discount rate and on how sensitive the benefit of increased consumption is to changes in the overall level of consumption. This focuses social choice on two key variables (impatience and the desire for stability in consumption) but the need to make a choice is not eluded. The theoretical approach to optimum saving emphasises that the question "Is saving too low?" can only be answered when distributional choices between generations as well as an assessment of returns to investment are made.

The question of how the optimal level of social saving is chosen will be passed over here. However, if saving is too low the government can take direct action to increase it by raising taxes in excess of public consumption spending. If saving is deemed too high, public borrowing to finance government current spending is appropriate.

Access to foreign capital markets can provide supplementary funds for investment. This adds a new dimension to government planning of saving and investment. Economic theory prescribes that a borrowing country should invest at home up to the point where the marginal return is equal to the

marginal cost of borrowing funds abroad. However, this is not an easy guide to the optimum net capital inflow. The marginal costs of foreign capital include the disadvantage of further foreign ownership or foreign influence as well as direct investment incomes that must be paid. The pattern of these costs differ among the different forms of capital inflow (e.g., direct private foreign investment versus public borrowing abroad). It is often hard to assess other matters that also bear on the optimal flow. Foreign capital inflow may dampen domestic savings effort. Foreign investment may be completely different in kind to domestic investment and its marginal returns to the economy as a whole hard to reckon. Appraising all the costs and benefits is a complicated task. It is quite likely that private decisions will produce the wrong volume of net capital inflow, or strike the wrong balance between different types of inflow. In that event, government action restraining or promoting foreign inflows are appropriate. The government's own borrowing policy plays an important part in carrying this out. Its influence has already been seen in Section I, and will become clearer in Section III when the use of borrowed funds is discussed.

Irish Experience

Table 1.1 focuses on the level of investment and the resources that financed it in various sub-periods since 1947. After the war, the government welcomed a net inflow of foreign capital to expand domestic investment. Much of it was secured on easy terms by public borrowing under the Marshall Aid Reconstruction Programme. The rate of investment rose sharply from 13.5 per cent of GNP in 1947 to 21 per cent in 1951 (public capital spending rising from 3 per cent to 9.4 per cent of GNP). The resources were substantially provided through running a balance of payments deficit. The level of private saving remained low and the government reduced domestic contribution to investment resources by dissaving.

When Marshall Aid stopped flowing in 1951, the government became distinctly hostile to reliance on foreign finance. The foreign contribution to investible resources was cut sharply. The growth of investment ended abruptly, even though private saving had stepped up by then and the public sector was no longer dissaving. Public capital spending was pruned, and the rate of overall investment in the economy stagnated until the end of the decade. This reversal does not fully show up in the table, because averaging over the period 1947–51 conceals the high investment rates achieved by 1951. The government bore a considerable measure of responsibility for the stagnation of investment. The slump wrought severe hardship, incomes grew slowly and heavy emigration occurred in search of work. Public policy came adrift in these years. The lack of some form of programme of priorities and targets for development was sorely felt.

The government's first Programme for Economic Expansion was published in 1958. It set as its major priority the expansion of productive investment. Greater domestic saving was thought necessary. However, forced public

saving was believed undesirable, instead, tax concessions to encourage voluntary private saving were envisaged. The attitude towards reliance on foreign resources relaxed. Direct investment by foreigners was seen as the most desirable form of inflow but an average reduction in official external reserves of £3.5 million per annum, and limited public foreign borrowing from international institutions were more acceptable than sacrificing productive investment opportunities for lack of resources. The programme showed recognition of the role of public capital spending in sustaining private demand. Although the need for public infrastructural investment was said to be on the decline, a switch of funds to support private productive capital spending was planned so that the level of public capital spending would be maintained.

As it turned out, the recovery of investment and income got under way in 1959–61 without any *net* support of foreign funds as Table 1.1 illustrates. Private saving expanded but public saving still remained tiny. In fact, the central government aimed at zero net saving by balancing the current budget in all years before 1972. The public savings which occurred were incidental rather than a deliberate attempt to use the tax weapon to raise national saving. Public capital spending grew during the period of the programme, but it is not easy to know how important public measures were in stimulating private investment.

A second Economic Programme was published in 1964. It envisaged a gentle rise in the rate of investment by 1970. Private domestic saving was to provide the bulk of the resources needed. An external contribution of 1.6 per cent of GNP was also planned as a temporary supplement. Direct foreign investment was actively encouraged through grants and tax relief. It was expected that direct foreign investment or external subscriptions to government loans would cover planned deficits, but if necessary direct government borrowing overseas or a run-down of official reserves would make up the short-fall. The programme emphasised the need for adequate demand and planned substantially higher public capital spending than during the first programme.

The table shows what actually occurred. The rate of investment, in fact, rose considerably higher than expected. More reliance was placed on foreign resources, some of it provided by direct public borrowing overseas. Even though there was no change of policy as regards public saving, it began to make a more noticeable contribution to investment resources. Despite heavy investment the target for employment (and to some degree for output) was not met and the programme had to be abandoned in 1968.

A new programme (1969–72) replaced the abandoned Second Programme. It planned further growth in the rate of investment. The external contribution of resources was to rise to 2.2 per cent of GNP. The main plank of the programme was expanded public capital spending, giving special priority to measures to encourage native and foreign industrial investment. Some direct public foreign borrowing was expected to be inevitable.

Table 1.1: *Resources for domestic physical capital formation, public foreign borrowing and capital spending: average of annual ratios to GNP, various periods*

Period	*Economy as a whole*				*Government sector*	
	Net public saving	*Net private saving*	*Deficit in the current balance of payments*	*Gross domestic physical capital formation*	*Capital spending*	*Net foreign borrowing*
	%	%	%	%	%	%
1947–51	–0.5	7.0	7.8	16.2	6.2	2.4
1952–58	0.5	8.6	1.9	15.2	7.0	0.7
1959–61	0.3	9.9	0.4	16.5	5.7	–0.1
1962–68	0.7	11.2	1.9	20.2	6.6	0.5
1969–72	0.9	12.5	3.6	23.9	8.1	1.0
1973–75	–3.2	20.6	4.3	25.8	9.3	3.6

Source: National Income and Expenditure.

Note: Apart from the sources listed, the remaining resources for investment come from depreciation less an adjustment for appreciation in the money value of stocks. Together these resources are identically equal to domestic investment. This does not mean that foreign inflows or domestic saving directly cause domestic investment. Both pass through complex channels before this retrospective identity is reached.

Investment turned out to be slightly higher than expected. Heavy reliance was placed on foreign resources and a substantial portion of it was public external borrowing, apparently reluctantly undertaken. The Third Programme again failed to achieve its output and employment targets, and no programme replaced it in 1972. Many of the policies of the previous programmes were continued, but the balanced current budget rule was abandoned for the first time. The intention was that debt-financed public consumption would be used as a stimulus in recession and a current budget surplus (reducing the borrowing requirement for public investment) would restrain demand in an inflation.

The dramatic rise in oil prices at the end of 1973 had a big impact on saving and investment. Heavy investment in stocks brought a rise in the rate of investment in 1974, but it fell precipitously in 1975. Even though the rate of private saving reached exceptional heights in these years, net resources from abroad amounted to almost one-third of investment in 1974. However, virtually no foreign finance was needed in 1975. The breach in the rampart of balanced current budgets rapidly widened as the recession caught hold. Public dissaving mounted to 6.7 per cent of GNP in 1975. The next chapter will argue that short-term stabilisation needs did not justify this. At all events, it was the first time fiscal measures deliberately influenced national saving. From the long-term standpoint it was in sharp contradiction to the repeated diagnosis of insufficient domestic investment. Present government statements suggest that this policy is to be continued even as the economy pulls out of recession. It is arguable that certain current spending, for example, on health and education yields future returns like an investment. However, they are expenditures that keep recurring. It would be conceivable to finance them by earmarking a certain portion of income tax receipts, which would represent the benefits of *past* spending, but in practice this would work out broadly the same as financing them from current taxation. In either case, they are not acceptable candidates for debt-finance. Expanded productive output is recognised as the only basis for employment creation. Employment to serve public consumption should only grow in accordance as the output base can bear it. This is precisely the rationale of balancing public consumption by tax revenue. The departure from the old precept is out of tune with a programme for development.

Table 1.2 focuses on the net inflows of foreign capital over the years. The inflow can be used to build up reserves of foreign exchange or to provide a flow of resources through the balance of payments, available for capital formation. The table reveals that in each period since 1951, the net inflow exceeded the deficit, allowing some accumulation of reserves. The importance of Marshall Aid loans for financing investment after the war stands out. From the end of the 1950s capital inflows began to re-emerge, gradually climbing to reach a quarter of total investment in the final period. McAleese (1972) showed that during the 1960s Ireland relied somewhat more heavily

on foreign funds for investment than most countries at a similar stage of development. This remains true in the 1970s though other countries also stepped up reliance on foreign resources.

Table 1.2 (a): *Ratio of net capital inflow and of the deficit in the current balance of payments to gross physical capital formation*

Period	*As a proportion of investment:*	
	Net inflow	*Current deficit*
	%	%
1947–51	40.0	47.0
1952–55	8.9	6.9
1959–61	9.3	2.6
1962–68	13.8	9.2
1969–72	23.0	15.0
1973–75	25.2	15.2

Table 1.2 (b): *Composition of the net capital inflow*

	1961–1969	*1970–1975*
	%	%
Government	15.1	36.8
State-sponsored bodies	16.4	13.2
Direct foreign investment	35.4	17.8
Other	33.2	32.2
Total	100	100

Source: Irish Statistical Bulletin; National Income and Expenditure.

The composition of the net inflow shows the important influence the government and government agencies exercised over it as it re-emerged since the beginning of the 1960s. The influence did not end with burgeoning borrowing under government auspices. Generous incentives were also offered to encourage direct foreign investment.[1] Public loans on the foreign free mar-

1 The figures understate direct foreign investment by omitting re-investment of profits by foreign enterprise. An eclipse of direct foreign investment appears in Table 1.2 during the 1970s. However, a great deal of the "other" inflows, which mainly come through the banking system, are probably direct foreign investment.

kets only commenced in 1965. They surged forward during the 1970s. This form of foreign inflow was always regarded with some misgivings because it was thought that small demand for Irish government debt would make such borrowing expensive. It was also disdained because it was an unalterable commitment to foreigners and brought in no foreign expertise. This attitude may now be changing. Autonomous foreign inflows have not proved adequate to cover desired deficits in recent years. Moreover, there have been sharp criticisms of the nature of direct foreign investment.[2] At the same time, the cost of funds directly borrowed abroad by the government has been low (see Chapter 4 below).

No attempt will be made here to pass a judgement on the appropriate pattern of foreign inflows. Many of the issues are still shrouded in uncertainty. In general terms, high reliance on foreign funds is reasonable in the throes of a development effort provided they are used to augment domestic investment. However, this will not happen automatically. Great care is needed to see that they are not used to finance consumption or to ease domestic savings effort. Even then it cannot be regarded as a soft option. The road to secure full employment is an economy free from excessive external influence and must be won by domestic sacrifice. It would be a dangerous illusion to expect rising living standards without a matching commitment to thrift, economy and integrity among all persons who earn their living in the country. Temporarily slower growth in *per capita* money incomes is needed to create employment opportunities and high domestic savings is needed to exploit these opportunities for employment.

III PUBLIC INVESTMENT – FINANCING AND DISTRIBUTION

Background

The task of public finance does not end with influencing the levels of domestic saving and foreign capital inflow. It must also be attentive to the type and overall amount of domestic investment undertaken. Many circumstances call for public intervention to influence investment. Certain industries are natural monopolies and it is easiest to exercise control over them in the public interest by having government run them itself. The benefits of some types of investment are spread so wide that it will not be worthwhile for individuals acting on their own to undertake all *socially* worthwhile investment opportunities. Roads and street-lighting are simple examples of this, but it extends to a wide variety of infrastructural investments. Occasionally, other problems hold back individuals from undertaking socially worthwhile

2 Government subsidies are accused of having attracted excessively capital-intensive enterprises, and enterprises in final production stages bearing little relation to Ireland's natural advantages. However, the range of choice for government is often limited. Secure jobs and foreign expertise are most easily attracted by capital subsidisation of set-up costs. For a discussion of these issues see Stewart (1971), Cooper and Whelan (1973), and McAleese (1977).

investment. For example, particular projects may be too risky for an individual but the risks are pooled in a public programme; or there may be resources idle in the economy but a private individual has to pay far more than their (zero) opportunity cost to bring them into employment. Similar problems arise where individuals have to pay more for credit than the true marginal cost to the community. All of these cases can be brought together under the single heading of cases of private market imperfections calling for public intervention. In addition, public investment may be required in the interests of sustaining the level of aggregate demand or to implement redistribution policies.

The government has three ways of influencing investment. First, it may directly undertake an investment programme of its own. Secondly, it may provide grants for certain projects undertaken by investors or subsidies on particular resources involved. Thirdly, it may provide loans to specific private investors on terms more favourable than they can obtain elsewhere. One or other of these methods will be more appropriate depending on the reason for public intervention. Although it is easy to see that there is a need for some public intervention in investment in the sort of cases cited in the previous paragraph, choosing the optimal level of intervention is far less easy. The features that cause the private market to ignore certain social benefits of an investment often make it difficult for the government to put a value on these returns. Private market valuations of inputs and outputs do not correspond to social costs and benefits and, therefore, cannot be used to evaluate the investment. However, methods have been evolved for calculating "social" prices of resources and applying them to public investment decisions. Discussion of them is beyond the scope of this paper.[3]

The decision on the amount of public current revenue saved determines how government investment is financed. Part of its saving is depreciation: an allowance for the replacement of the depreciating public capital stock. The remainder, net public saving, is the government contribution to domestic investment resources. The other sources of public investment are capital taxation and public borrowing. Capital taxation is on the border between public saving and borrowing. Like saving, it may be paid by pruning private consumption; or alternatively it may be paid by pruning saving, forcing investors to look for external finance or go without. Net public borrowing follows as a residue from the decision on government investment and government saving. However, these decisions must take account of the effects of borrowing on the economy, so treating decisions sequentially is only for ease of explanation.

Irish Experience

Throughout the past thirty years, the government has played a large part in financing and encouraging investment in Ireland. Its activities in this area

3 See, for example, Little and Mirless (1974), Dasgupta *et al.* (1972).

have been considerably greater than that of other European governments. Table 1.3 looks at how public capital spending evolved since 1947, and how it was divided between the government's direct investment programme, its net lending and its investment grants and subsidies. A few words explaining these components may be useful. Public sector industries are independent bodies, so their investment does not figure in the government's direct investment. This is confined to social and infrastructural investments directly undertaken by the government (schools, hospitals, roads, and so on). At the same time, the government lends funds to these public industries to help finance their investment. None the less, the table understates total public investment activity to the extent that state bodies use other sources of finance. Very little of the government's net lending is directly to the private sector (only housing loans by local authorities). However, some lending goes to state-sponsored credit companies directly lending to private enterprises. Capital transfers, on the other hand, are paid mainly to the private sector. They are divided between grants to households and institutions for social purposes, and grants to enterprises for productive purposes.

The first part of Table 1.3 shows the rapid expansion in public capital spending after the war. It concentrated heavily on infrastructural investment through the government's own investment programme and through lending to public industries operating in these areas. The expansion seized up once cheap reconstruction loans stopped flowing. This retrenchment bit hard on direct investment and lending, while capital transfers went on growing. Thus, there was quite a turnabout in the components of spending in the second part of the table.

The economic programmes made public capital spending the main vehicle of the government's development policy. It had a dual role of sustaining aggregate demand and of raising the level of investment. Table 1.3 indicates the dramatic growth in real capital spending during the First Economic Programme. This programme placed priority on "productive" public investment – that which increased national output of competitive goods and services. It was claimed that the most pressing social investment needs had been satisfied. There was also fear of debt service charges so high as to impede growth. The policy bore fruit in the striking fall in spending for social purposes in 1959–62. Net lending was the major beneficiary. This financed investment in productive public sector industries and credit for industry and agriculture. Other development proposals introduced at this time were subsidies on fertilizers and grants for private industrial investment, but these measures had no immediate impact on the share of capital transfers to private enterprise.

During the second and third programmes 1964–72, public capital spending continued to grow rapidly. The priority on productive investment relaxed and social spending recovered its share. The aim was to keep the growth of social investment in line with productive investment. The extra room for

Table 1.3 (a): *Public capital spending: its annual average real rate of growth; average ratio to gross national product; and average share in gross domestic physical capital formation*

Period	*Real rate of growth*	*Period*	*Ratio to GNP*	*Share of investment*
1947–51	33.9	1947–51	6.2	37.2
1951–59	–5.5	1952–58	7.0	46.0
1959–61	10.9	1959–61	5.7	34.5
1961–68	6.4	1962–68	6.6	34.2
1968–72	6.8	1969–72	8.1	33.6
1972–75	8.0	1973–75	9.3	36.6

Note: Public capital spending excludes payments in redemption of public debt, and minor capital payments to the rest of the world. It includes public lending net of repayments to the government for past loans. Public net lending to intervention agency in 1973–75 is not included.

Table 1.3 (b): *Distribution of public capital spending by type*

Period	*Gross physical capital formation*		*Net lending*	*Capital transfers*		*Total*
	Infrastructural	*Social*		*Agricultural and industrial sectors*	*Social*	
	%	%	%	%	%	%
1947–52	62.0		32.3	5.0	0.8	100
1953–58	30.4	26.8	22.1	13.6	7.1	100
1959–62	37.3	14.2	30.6	12.7	5.4	100
1963–68	35.3	23.3	19.9	16.6	8.3	100
1969–72	30.4	25.0	14.1	21.9	8.4	100
1973–74	32.4	28.7	18.9	12.5	7.6	100

Source: National Income and Expenditure.

social spending was made by reducing public lending. It was comparatively easy for the bodies receiving these loans to borrow elsewhere. Grants to manufacturing industry began to grow in earnest during the tenure of these programmes. They increased five-fold between 1965 and 1971, but then subsided.

Table 1.4 shows the functional distribution of capital spending during the second and third programmes (the only period for which it is yet available). The most dramatic difference between these programmes is the reduced share of investment going to agriculture and increased share to industry. Social investment and other government services have drifted upwards. Although public capital spending was the focal point of public programmes, none of them envisaged growth in the public share of investment. Table 1.3 (a) shows that this aspect of the programmes was fulfilled as the public share showed little change from 1959 to 1972.

Table 1.4: *Functional distribution of public capital spending**

	1963–68	*1969–73*
Education	9.3	9.8
Health	2.5	2.9
Social services	4.7	5.7
Housing	24.2	23.8
Agriculture, forestry and fishing	14.5	9.6
Industry	15.4	18.5
Transport and communications	25.1	22.9
Other government services	4.5	6.8
Total	100	100

*Includes gross public lending.

Source: National Income and Expenditure

After the Third Programme ended, the real growth of public capital spending rose initially, but it subsided in 1975 when capital transfers actually fell in real terms. During these years the government took action to sustain demand in the face of recession. Direct investment, lending to public sector industries for investment, and public consumption spending were all expanded. Capital transfers, on the other hand, are not entirely controlled by the government since private investors must also be willing to undertake the subsidised projects. The decline in real capital transfers thus reflects the reluctance of the private sector to invest during the recession. It will be

noticed too (Table 1.3 (a)) how the government share in total investment climbed in these years.

The sustained shift towards public social investment since the early 1960s, evident in both Table 1.3 (b) and Table 1.4, stems from two factors. The first is demographic change. An increased rate of family formation promoted population growth during the 1960s. This raised the demand for housing and education facilities. The ratio of young and old dependants on the working population is exceptionally high in Ireland. Thus, as children stayed on longer in education and the retirement age fell, substantial new demands for social services were created. The second factor was a definite trend towards universal public provision of health; education; social welfare, and housing to a lesser extent, during the last decade.[4]

It is impossible to assess whether the level and pattern of public investment have been optimal. Little or no information is available on the rate of return to the various types of public investment. Recently, the returns on government capital transfers to industry have come in for closer public scrutiny. Capital grants have, in fact, become the mainstay of the government's industrial promotion strategy. Subsidies always run a danger of a serious misallocation of resources. On the one hand, the investment might have taken place without any grant if investment demand is price inelastic. Or, on the other hand, if demand is elastic a smaller grant might have done. Apart from this fundamental problem of subsidies, capital grants have also been criticised because of the sort of enterprise they encouraged (see Stewart (1971), Cooper and Whelan (1973), and McAleese (1977)). Closer attention could profitably be extended to many other forms of public investment such as spending on roads, housing, health, and so on. A tricky problem is that the government's judgement plays a large role in deciding the "social" or "redistributional" as distinct from purely private benefits of spending. However, the presence of such benefits must not be an excuse exempting the project from closer scrutiny. It is desirable to evolve measures for estimating the total contribution, (social and economic) of such projects, although any such measures can never be absolutely precise. In the past, decisions extending social spending seem to have escaped careful appraisal of their benefits and costs, and of the ability of ancilliary facilities to cater for extra demand.

The Third Economic Programme proposed to introduce more systematic methods of analysing public spending by reference to objectives and outputs. These would put money measures on the discrepancy between social and private values created by market imperfections, and on the benefits of redistribution. However, the proposal floundered in the face of difficulties in finding suitable measures. The benefits of new proposals and the success of past measures, particularly in the social area have, therefore, remained vague. The effort to evaluate public spending should be renewed. It is particularly important to put appraisal of public investment financed by borrowing on

4 See Kennedy (1975) for a discussion of public social spending in Ireland.

a more rigorous footing. In this case, some alternative investment opportunity is sacrificed, but the sacrifice is not immediately brought home to the public in the form of taxation.

Table 1.5 examines how public capital spending has been financed over the years. The broad picture is already familiar from the discussion in Section II of this chapter. Net borrowing financed roughly three-quarters of capital spending between 1947 and 1972 but it varied noticeably from year to year. It rocketed to one-and-a-half times capital spending in the period 1973–75, as borrowing was used to finance public consumption spending (i.e., public dissaving through current budget deficit described above). Foreign borrowing was high immediately after the war but then fell away. It began to re-emerge from the mid-1960s and in the period 1973–75 it was financing a bigger share of capital spending than in the years of Marshall Aid. The other sources of finance are depreciation and capital taxation. The former made a remarkably stable contribution but it was far short of a realistic allowance for depreciation of capital stock (see Chapter 4, Section II). The contribution of capital taxation dwindled until the late 1960s, but recovered then as tax thresholds failed to keep pace with inflation.

Table 1.5: *Sources of finance for public capital*

	1947–51	*1952–58*	*1959–61*	*1962–68*	*1969–72*	*1973–75*
	%	%	%	%	%	%
Net public saving	–7.3	8.0	5.5	10.5	11.3	–34.6
Depreciation	11.1	10.8	14.3	12.0	11.1	10.4
Capital taxation and other net capital receipts	19.9	10.3	8.0	5.4	10.6	10.1
Net domestic borrowing	46.6	64.3	75.4	65.0	54.5	113.9
Net foreign borrowing*	29.8	7.7	–3.1	7.5	12.4	36.4
Total	100	100	100	100	100	100

*Foreign subscriptions to public domestic debt are not included.

Source: National Income and Expenditure, Finance Accounts, Dowling (1974).

IV CONCLUSION

The use of public borrowing cannot be assessed without a broad appraisal of the role of government in the economy. Public borrowing allocates investible resources to government purposes. In the main, it draws funds into the economy and increases the country's indebtedness to foreigners. Borrowing to finance public consumption reduces national saving and sacrifices long-term potential for short-term gains. In an economy where investment resources are scarce, borrowing should only be used to finance public asset

formation. This is the reasoning behind the balanced budget rule. Admittedly, the rule is blunt. It treats all investment projects as if equally worthy for debt financing, whereas, in fact, government must be selective in the investments chosen. It also uses a somewhat arbitrary classification of capital and current spending, whereas in practice investment and consumption cannot be neatly separated. For example, in an economy with structural unemployment, current spending may contain an element of investment in a human resource if it provides an employment opportunity for persons who are ill-equipped to find alternative work. However, these considerations can only be taken into account rigorously by systematic appraisal of present and future benefits of public spending. It is not sufficient to quote the weaknesses of the balanced budget rule to justify random departures from it.

The bulk of public investment is not subjected to sufficient scrutiny of costs and benefits. In principle, the government's investment should be decided by the goal of equalising the marginal social return in public and alternative private investments, with the marginal social cost of foreign funds and domestic savings. This is not easy to measure. However, while judgement must play a large part in guiding public finance, the area where judgements are necessary can be narrowed by careful appraisal of public investment opportunities. The economic programmes were a welcome departure. They attempted to set investment, foreign capital inflow, public borrowing, and public capital spending into a perspective of economic development targets. They prevented precipitate policy changes that had previously set back development. However, the concrete policy proposals were inadequate to meet planned targets. Investment requirements were also seriously underestimated. These problems again highlight the need for careful study of the intended results of public investment. The failure to reach targets has made governments in the 1970s reluctant to undertake elaborate long-period planning. None the less, the need for a long view regarding investment is as pressing as ever. A new economic programme should focus on planning the government's own spending and achieving the targets directly under its control.

Chapter 2

Public Borrowing and Stabilisation

I THE PRINCIPLES OF STABILISATION POLICY

BESIDES guiding long-term development, government financial decisions play a role in stabilising short-run disturbances in the economy. A long-term plan makes decisions about the correct levels of domestic saving and investment, of net inflows of foreign capital, and of public borrowing. These are not separate decisions but are inextricably linked as the national accounting identity:

$$(G - T) = (I\ priv - S\ priv) + (X - M)$$

illustrates. They are chosen in a context where resources are employed to their capacity. However, this will not happen automatically. Even when a proper long-term strategy has been adopted, disturbances can occur in the private domestic economy or the external sector. The government seeks to neutralise such disturbances. An interest rate policy can have very little effect on the level of demand in an open economy so the government must rely on fiscal measures. The two arms of fiscal policy are spending and taxation. Since borrowing is their residual, it emerges as a pivotal ingredient in short-run stabilisation of the economy. Does this second aspect of borrowing alter any of the conclusions reached in the last chapter?

In the face of potential deflation the economy can be stabilised by either cutting taxation or increasing spending. The latter is more effective per pound because part of a tax cut will be saved and the remainder which is spent usually has a larger import content than public spending. Thus, corrective tax measures will call for greater borrowing than public spending measures. However, consideration of stabilisation goals alone gives no compelling grounds for choosing between these alternatives. At this point, the long-term allocation objectives re-enter. If initial decisions conformed to long-term plans, the appropriate response depends on the source of disturbance. When private investment collapses, investors fail to fulfil the allocation between current and future consumption desired by savers. The government's compensatory policy should step in to counter this private market failure by expanding public investment. Similarly, a fall in domestic consumption should

be countered by cutting taxes to stimulate private consumption and financing some public consumption from borrowing. Deflation can also originate abroad if export earnings collapse or the cost of imports rise. Matters are more complicated here. An increase in foreign capital inflow is an essential part of stabilisation because without it the volume of available exports cannot pay for the required volume of imports. Stabilisation also requires a boost in aggregate demand. Falling export incomes or diversion of income to pay for imports would, otherwise, pinch spending on domestic goods. The government's response requires two corresponding elements. First, it should facilitate a capital inflow by directly borrowing abroad if private flows are inadequate.[5] Second, it should increase public *investment* to bolster demand. Extra domestic investment is appropriate because the stabilising inflow of foreign capital cuts into the country's external assets.

II THE IRISH EXPERIENCE

During the 1950s, Irish fiscal policy was a failure. It did not prevent a prolonged recession in the economy. Moreover, although there was no stated long-term objective for saving, investment and capital inflows, fiscal responses appear to have borne no relation to the source of disturbance in the economy. Policy-makers kept their eyes on the level of foreign exchange reserves as the main barometer deciding when a change in fiscal policy was necessary. The response was always the same: when reserves fell public investment and public borrowing were pruned. This was the response to the import price inflation of the Korean War in the early 1950s and to the collapse of export earnings in 1956. Thus, fiscal policy aggravated deflationary pressures on aggregate demand, and made no effort to facilitate accommodating capital inflows through its own borrowing.

The record of fiscal policy during the 1960s and 1970s has been more successful. A period of almost uninterrupted growth was enjoyed until the onset of world recession in late 1973. However, policy still seems to have lacked a longer view in its response to disturbances. In 1965 and 1970, the government believed growing consumption was causing inflationary pressures. It responded by cutting public investment when tax increases would seem to have been more in line with their diagnosis. In 1974/75 when severe recession followed in the wake of the oil price increase, the government heavily borrowed abroad helping to accommodate the needed capital inflow. It stepped up the volume of public spending by over 7 per cent in both years to support domestic demand. These responses were not enough to prevent a sharp recession, but they were in the right direction. At all events, an economy so dependent on external trade as Ireland could not hope to ride out the world slump unscathed. However, a serious weakness in this policy was the sort of public spending undertaken to support demand. Public consump-

5 Interest rates could also be increased with a view to attracting accommodating inflows.

tion rose more rapidly than capital spending in both years, but particularly in 1975 when capital spending stagnated in real terms.[6]

In previous years, public consumption was entirely financed by taxes, but net borrowing funded 8 per cent of it in 1974 and 16.5 per cent in 1975. Thus, the government responded to the recession by heavy dissaving. It defended this policy as the appropriate stimulus for deficient demand. However, this is not a sustainable argument. The deflation was brought on primarily by dearer imports followed by a collapse in investment. Both of these called for expanded public investment from the long-term view of the country's asset position. Thus, expanded public investment was the appropriate stimulus to demand. Even from the short-run standpoint, financing public consumption from borrowing seems to have been misguided, since a great deal of it financed increased rates of pay, not increased public service employment. The long-term danger of the policy is that the extra public debt is a future liability, not backed by any asset. It is arguable that with private investment demand collapsing, no private asset is sacrificed by domestic public borrowing, since savings are put to use that would, otherwise, have been lost through further deflation. However, this argument is not looking at the relevant alternatives. Both public consumption and investment are capable of containing deflation, so the choice of consumption still means opting for a public liability without backing. The case is even clearer if the funds are borrowed abroad, when the future public liability is a direct drain on the country's resources.

III CONCLUSION

The role of stabilising the economy modifies the development role of public borrowing to a degree. However, deflation does not give a *carte blanche* to borrowing for any purpose. Borrowing for consumption is only warranted if private consumption below its optimal level is the cause of recession. This does not happen frequently. Consumption demand is comparatively stable and such fluctuations as occur do not cause sharp adjustment in a country such as Ireland where the multiplier effects are small. The usual source of recession is a collapse in investment demand or external deflation. In these cases, borrowing to finance extra public investment prevents the frustration of savers' intention to promote capital formation. This conforms with the use of borrowing prescribed in the last chapter. Excessive demand in the economy is more likely to cause a clash between the development and stabilisation roles of public capital spending. It may force the government to cut back on its investment programme, or finance more of it from taxation. However, once again small multiplier effects soften the conflict.

6 Public capital spending was distorted in 1974/75 by the lending and repayment of funds to finance agricultural intervention buying. An adjustment to exclude this item has been made here.

Chapter 3

The Stock of Public Debt

I PUBLIC BORROWING AND PUBLIC DEBT

OVER time net borrowing leads to an accumulation of public debt. Table 3.1 shows the rate of net public borrowing in relation to GNP and the form of borrowing in various periods since the war. The rate of borrowing varied considerably from year to year because it acted as a residual source of finance for fluctuating capital spending. The variation was around a fairly steady trend of 5½ per cent of GNP until 1973, then borrowing rose sharply.

Table 3.1: *Public net borrowing: its distribution among various sources, and its ratio to gross national product*

	1949–51	*1952–58*	*1959–61*	*1962–68*	*1969–72*	*1973–75*
	%	%	%	%	%	%
Foreign debt	45.9	5.4	–7.4	11.0	19.1	29.1
Marketable domestic	16.8	48.9	54.5	78.3	74.4	58.5
Small savings	21.8	28.6	39.8	24.1	25.6	7.5
Other domestic	15.4	17.1	13.2	–13.5	–19.1	4.8
Total net borrowing	100	100	100	100	100	100
As a proportion of GNP	5.5	5.2	4.2	5.0	5.4	11.8

Note: The distribution of net borrowing is based on Dowling, 1974. They do not exactly match the published totals for net borrowing, but the discrepancy is small.

Source: Dowling (1974); *Finance Accounts; Central Bank of Ireland Quarterly Bulletins; National Income and Expenditure.*

The source of borrowing varied widely over the years. The pattern of foreign borrowing was noted in the first chapter. In all, foreign borrowings of £41 million under the Marshall Aid Reconstruction programme were made between 1948 and 1951. These funds were put to use gradually, reaching a peak of 70 per cent of net borrowing in 1951. The bulk of them had been

spent by 1952. From 1951 until 1965, the only external source of public funds were the foreign exchange holdings of government departments. Their contribution was significant in certain years, but on the whole net foreign borrowing was negative during this period as some Marshall Loans were repaid. In 1965, direct foreign borrowing re-appeared and from then until 1973 contributed 15 per cent of borrowing requirements. In 1974, the jump in borrowing brought much greater reliance on foreign sources rising to 34 per cent in 1974/75.

Within domestic borrowing, sales of marketable securities have become more dominant since the early 1960s. This reflects growing reliance on borrowing from financial institutions. In the early 1960s, about 75 per cent of security sales were taken up by the non-bank public but in the 1970s this had fallen to 45 per cent. Thus, borrowing from the non-bank public either as small savings or sales of securities are being rapidly eclipsed. This is partly a policy choice. Collection of savings from the ordinary public is left to the financial institutions who specialise in this job.[7] None the less, a recoil from poor real rates of return also underlies the decline in contribution of personal savers.

The growth and structure of public debt should mirror these trends in public borrowing. However, definitional differences cause some 'slip between the cup and the lip'. (i) The debt statement covers liabilities of the central government alone excluding local authorities, and certain funds operated within government departments. Since local authorities borrow almost exclusively from central government through the 'Local Loans Fund', their omission is of no real consequence. The departmental funds have direct liabilities to the public. However, they lend principally to central government and this is counted in the debt, so the distortion caused to the overall debt picture is lessened. Over the whole period there is a discrepancy of under 6 per cent between total net public borrowing and the change in published debt liabilities associated with borrowing.[8]

(ii) Besides liabilities directly associated with central government borrowing, debt also includes the capitalised value of certain other liabilities. The first is an undertaking to bear part of the cost of local authority borrowing, but since these funds come from the central government itself the liability is double counted. It is accordingly excluded below. The second is compensa-

7 Some of these are state operated, notably the Post Office and Trustee Savings Bank, the Agricultural Credit Corporation, and the Industrial Credit Company.

8 In this study public authorities do not include the state-sponsored bodies who operate public sector industries. Most of these have independent borrowing powers and carry substantial liabilities to the public. They also engage in direct foreign borrowing and at the end of 1975 their foreign debt would have added another 40 per cent to public foreign debt. However, their foreign debt has not grown much since and at end 1977 it was less than one quarter of the size of public foreign debt.

tion for land acquired for re-distribution: the total liability is shared between the State and the new occupier. The final item is an undertaking to underwrite independent borrowing by the Department of Posts and Telegraphs mainly from the Post Office Savings Bank for telephone development.

(iii) The published debt figures express foreign debt at its original Irish pound value. They ignore the extra liability incurred on non-sterling loans when the pound depreciates.[9] To get a proper view of the liability the foreign debt is valued at *current* exchange rates below. All debt, domestic and foreign, is expressed at the value that must be repaid at final maturity. This will usually differ from the price marketable debt would fetch in the market.

Table 3.2: *Total public debt; its annual average growth rate; its absolute level; its ratio to gross national product*

Period	*Annual average growth rate of debt* %	*End of period*	
		Absolute debt (£m.)	*Ratio of debt to GNP (%)*
1947		86.8	26.2
1947–51	22.5	194.8	46.4
1951–58	8.3	340.4	56.6
1958–61	7.5	415.7	58.6
1961–68	9.2	781.1	60.1
1968–72	10.7	1,173.0	51.4
1972–75	23.0	2,542.4	69.0

Source: Finance Accounts

Notes: 1. Prior to 1967 the total capitalised liability for housing and sanitation is excluded (not just that owing to local authorities but the difference is slight).

2. Prior to 1960 there is an element of double counting in figures for ways and means advances.

Table 3.2 traces the uninterrupted growth of public debt over the post-war period. The pattern of annual average growth rates reflect the changing

9 The actual practice followed is quite unusual. The foreign debt is expressed in terms of the original sterling proceeds of the loan. However, with one exception repayments are deducted at current exchange rate values. A loan being repaid in instalments could, accordingly, appear to be cancelled when some of the liability still remained. However, since most of the debt is of very recent origin an anomaly of this sort has not yet occurred. Since writing, this practice has been changed and foreign debt is now expressed at current exchange rates.

reliance on borrowing in the various sub-periods, although they partly conceal the growth of *absolute* additions to debt since the early 'sixties. Since public debt tends to reduce private investment or the economy's external assets, the ratio of debt to income can be viewed in the same light as the ratio of a personal commitment to creditors to annual earnings. If funds have been put to good use, a large commitment to creditors is quite legitimate. Similarly, the public debt ratio can only be assessed by reference to how the funds have been used by government. It should neither be dismissed as unimportant because as a community the bulk of debt is 'owed to ourselves', nor treated as a crushing millstone weighing down progress because taxes must be raised to service it. Table 3.2 shows how the debt ratio evolved over the post-war period. The debt ratio grew from a low of 25 per cent in 1948 to a peak of 63 per cent in 1966. Despite the comparatively high level of borrowing over the following years, the debt ratio fell away quite sharply at the end of the decade. This was primarily due to accelerating inflation. A trough of 51 per cent was reached in 1973. It then staged a dramatic revival to reach 69 per cent of GNP in 1975, as the very heavy public borrowing outweighed the influence of continuing inflation.

II THE LEVEL OF DEBT AND OF ASSETS

If borrowing is used solely to finance public investment, then each year's increment of debt will be backed by assets. If it is used to fund consumption then dead-weight debt will be created. Subsequent management of debt can alter the proportion which is backed by assets. Unless debt is redeemed, or at least a charge for depreciation levied on current taxation according as public assets wear out, then the dead-weight share will grow. On the other hand, if the government defaults on its debt or the real value of debt is eroded by inflation then the dead-weight share contracts.

Until recently, debt creation has been associated with public investment in Ireland. However, subsequent events have not kept the level of real assets created and real debt in line. Table 3.3 gives a rough illustration of the discrepancy by comparing outstanding debt with an estimate of the assets created by public spending over twenty years (based on the cost at constant (1975) prices of public investment minus a realistic allowance for depreciation). Assets appear to exceed debt by £880 or 35 per cent. Of course, showing that the past cost of assets exceeds debt does not indicate whether the true value of these assets is greater than the debt. Only information on the true social returns from public investment could answer that question. The discrepancy in the Table occurred through the effects of inflation on the fixed money value of debt, not by speedy redemption of debt nor by large charges for depreciation.[10]

10 Redemption of debt and the methods of charging depreciation of public assets to current taxation are discussed in Chapter 4.

Table 3.3: *Outstanding public debt in 1975 and the accumulated real value of public capital spending over twenty years*

Debt (£m.)	*Assets created (£m.)*	
2542.4	Public capital stock	1984.7
	Private capital stock financed by grants	1017.4
	Repayable loans	421.5
		3422.9

Source: Finance Accounts, National Income and Expenditure

Note: The capital stock was estimated as the sum over twenty years of *net* investment at constant 1975 prices. Half of total public capital grants were taken as covering depreciation, and the remainder forming *net* investment.

III THE EFFECT OF INFLATION ON PUBLIC DEBT

The reduction in the real value of public debt due to inflation is important in its own right. It raises issues of equity and of efficiency. The cost of this reduction falls to the taxpayer if the interest rate paid contains an element compensating for the effect of inflation on the principal of debt. If compensation is not paid, the debt holder bears the cost. As the pace of inflation has increased, rising interest rates have afforded partial insulation against the effects of inflation. However, the majority of debt bears a fixed interest rate, so this limited protection was only enjoyed by new lenders. The compounded effect of uncompensated inflation on debt holders was dramatic. The return earned by domestic debt holders after deducting an allowance to maintain the real value of principal was negative for much of the period 1949–75. Adding up over the whole period, it amounted to a loss of £629.4 at constant 1975 prices. This was equivalent to 28.9 per cent of outstanding debt and 16.9 per cent of GNP in 1975.

It is difficult to defend this re-distribution from debt-subscribers to taxpayers on grounds of equity. To a great extent, it is beyond the control of the Irish government. However, debt with a variable rate of interest would at least ensure that debt holders enjoy whatever protection from inflation the market affords to new lenders. For tax purposes, interest income is treated on all fours with other forms of income. This conceals a difference in the burden of taxation borne by persons drawing their income from lending during a period of inflation. Since part of the interest income merely restores the real value of principal, this part ought to be removed in assessing the burden of taxation on "true income" (defined as the flow of funds which could be used to *add* to the receiver's net worth during the period). Under the present system, if the nominal tax rate was 30 per cent, then the effective rate on "true" interest income would be higher than 30 per cent when prices

are rising. For example, the effective tax rate would be 100 per cent on a 10 per cent p.a. interest income if prices were rising at 7 per cent p.a. The present treatment of interest income in effect contains an element of tax on the wealth of lenders, as well as a tax on their income. The distributional and incentive effect of this selective wealth tax are not much discussed. It operates against the smaller saver who puts his savings on deposit rather than investing in shares where the capital value is largely safe from the ravages of inflation.

The reduction in the real value of debt by inflation can also bear directly on the allocation of resources. It is likely that an uncompensated decline in the real value of public debt has a dampening effect on private consumption as individuals set out to restore the real value of their wealth. This will not be offset if the government, who is the gainer from inflation, does not increase its dissaving. However, there is a danger that on being relieved of much of the financial cost of its borrowing, the government will overlook the true cost to the economy and divert resources to public purposes with poor returns.

When compensation for inflation is included in interest income, recipients may be inclined to treat this as if it were part of "true" income, and so dilute the true savings' effort of the community.[11] The issues described above are among the many raised by the phenomenon of persistent inflation which have not really been fully teased out by economists. They can only be mentioned here in passing.

IV THE STRUCTURE OF PUBLIC DEBT

Changes in the composition of public debt shown in Table 3.4 broadly reflect the evolving pattern of borrowing described in Table 3.1. The reemergence of foreign debt, and the growing dominance of marketable debt amongst domestic debt stands out. Both small savings and capitalised liabilities are on the wane. Ways and means advances and "Other" non-marketable debt have not been discussed. The former is floating debt advanced to central government by the departmental funds mentioned earlier. The main items in the latter group are borrowing from the Central Bank; tax reserve certificates; and a special issue to the commercial banks when foreign reserves were centralised under the Basle (1968) Agreement.

Domestic marketable debt includes issues of various maturities. The main distinction is drawn between exchequer bills which mature within three months and securities which have maturity terms of at least one year. The securities all have fixed redemption dates and virtually all bear a fixed interest rate over the full term of the loan. The maturity terms have ranged from

11 Another side-effect of interest income containing an element of capital is the distortion of the maturity structure of the debt (shown in Table 3.5 below). The interest payments in fact contain an element of repayment of debt which is ignored by just looking at the date on which the principal matures.

one up to twenty-five years. They can be redeemed before final maturity at the government's discretion or bought back from the market if the price is favourable.

Table 3.4: *Composition of total public debt*

Type of debt		*1947*	*1952*	*1961*	*1969*	*1975*
		%	%	%	%	%
Foreign		5.0	27.9	11.4	7.8	22.3
Domestic						
(i) Ways and Means Advances		10.3	9.8	14.8	3.3	3.0
(ii) Marketable	(a) Securities	52.2	41.6	47.3	53.0	57.3
	(b) Bills	–	–	5.5	9.5	4.6
(iii) Non-Marketable	(a) Small Savings	13.2	7.7	10.2	9.4	4.8
	(b) Capitalised Liabilities	19.4	13.0	8.0	9.4	6.9
	(c) Other	–	–	2.8	7.7	1.0
	%	100	100	100	100	100
Total	*£m.*	86.8	178.2	415.7	864.9	2542.4

Source: Finance Accounts

Notes. 1. Prior to 1967 the total capitalised liability for Housing and Sanitation is excluded (not just that owing to Local Authorities but the difference is slight).

2. Prior to 1960 there is an element of double counting in figures for ways and means advances.

Table 3.5: *Maturity structure of domestic marketable debt*

		1947	*1955*	*1961*	*1969*	*1972*	*1975*
		%	%	%	%	%	%
Under One year		–	3.3	12.7	24.9	33.0	21.2
Over One Under Three		–	5.6	–	9.0	16.1	26.5
Over Three Under Five		–	–	2.6	6.6	4.0	12.6
Over Five Under Ten		–	4.6	30.2	7.5	6.2	6.9
Over Ten Under Twenty		63.4	54.7	39.0	29.5	28.4	20.0
Over Twenty		36.6	31.7	15.4	22.5	12.4	12.7
	%	100	100	100	100	100	100
Total	*£m.*	45.3	135.6	220.5	462.2	776.7	1575.5

Source: Finance Accounts

No perpetuities have ever been issued. Table 3.5 shows how the maturity structure of the domestic marketable debt has evolved. Before the mid-'fifties virtually all had over ten years to run to maturity. Gradually the debt structure was shortened. At first the spread in maturity was mainly achieved by allowing the long-dated bonds to roll forward towards maturity instead of converting or repaying them in advance. Later on, short-dated securities were promoted. The change in the structure stemmed partly from the growing difficulty of finding a market for long-dated debt in inflationary times. However, it also reflected a conscious effort by the government to supply the full range of financial investments required by banking institutions and thereby to increase monetary control. The development of monetary control and the implications of maturity structure for the management and service of debt will be discussed in Chapter 5.

V FOREIGN DEBT

Public foreign debt is frequently viewed with special concern. In a small open economy facing a perfect capital market no great significance need be attached to whether the government borrows at home or abroad. The only difference lies in whether the extra liability to foreigners falls on the government or on the private sector. However, once imperfections are admitted, the issue becomes important. If the private sector finds difficulty in raising funds abroad, then the government will avoid putting a pinch on private investors by directly borrowing abroad. It will thus facilitate a net capital inflow that could not otherwise have occurred. These circumstances largely lie behind the meteoric growth of public foreign borrowing in the last few years. Only the larger Irish firms can directly borrow abroad, and the banking system appears to be reluctant to further extend its comparatively small present net liability to foreigners. The bulk of Irish liabilities to foreigners are, therefore, in the form of capital stock directly owned by foreigners and of public foreign debt. Thus, the importance of public foreign debt is that it is the component of foreign liabilities whose level is directly under Irish control.

The figures of public foreign debt only refer to loans actually raised outside the country. They understate the total liability to foreigners by ignoring foreign subscriptions to domestic debt.[1] [2] Table 3.6 compares public foreign debt to total debt, to income and to foreign exchange reserves. The explosive

12 Unfortunately, details are not available on foreign subscriptions to domestic debt. However, the national accounts give information on the value of public debt interest paid to foreigners. By deducting the value of interest payments on official foreign loans, we get an estimate of interest paid to foreigners on their subscriptions to domestic debt. By comparing this to total interest payments on domestic debt we get a very rough indicator of the proportion of domestic debt held by foreigners. This estimate suggests that foreign holdings represented an average of 2.4 per cent of domestic debt between 1971 and 1974 having fallen from 4.0 per cent in 1966–70 and 5.1 per cent in 1960–65.

(Continued on next page)

growth since 1973 is evident. The change in the relationship to foreign reserves is most dramatic: in 1976 foreign debt exceeded official reserves of foreign exchange for the first time. The relationship to foreign reserves should not be given too much normative significance. If matching increases in foreign borrowing and foreign reserves were demanded, then public foreign borrowing could not supplement domestic investible resources. The relationship to foreign reserves is more like a bank liquidity ratio. Liquid reserves can fall far short of total liabilities before a danger point is reached. This analogy cannot be pushed too far, because official reserves must act as a safety net for adverse changes in the balance of trade as well as for public liabilities.

Table 3.6: *Ratio of public foreign debt at current exchange rates to total debt; gross national product; and the Irish pound value of official foreign exchange reserves*

	Ratio to debt	*Ratio to GNP*	*Ratio to reserves*
	%	%	%
1947	5.0	1.3	1.8
1951	25.1	11.6	22.0
1961	11.4	6.7	21.2
1968	8.3	5.0	22.1
1972	10.1	5.2	27.3
1975	22.3	15.4	83.9

Source: Central Bank of Ireland Quarterly Reports; National Income and Expenditure; Finance Accounts

No simple ratio can indicate when the level of foreign debt is too high. At the very least a number of indicators must be examined. Apart from those in the table, the level and variability of foreign exchange earnings and the economy's growth performance also bear on the capacity to carry foreign debt. Ultimately, the main grounds for judging foreign borrowing are the uses to which it has been put. On this score, the large increments in public consumption financed by large foreign borrowings in 1975 and 1976 are disquieting. Even where the economy's use of foreign resources is sound on a long view, the government must be careful to avoid short-run difficulties. Heavy borrowing on foreign markets in any one year should be avoided as far as possible, both because the terms of borrowing may become more costly and because it exhausts the goodwill of creditors and so leaves the economy less equipped

(Continued from last page)

It could add as much as one-tenth to the value of explicitly foreign liabilities in 1974. These figures take no account of the type of domestic debt held by foreigners. If foreigners invest primarily in domestic long-term securities, their share is probably overestimated. Since 1975, there is evidence of renewed interest by non-residents in domestically issued debt.

to meet any unexpected setbacks. Thus, expansion of foreign borrowing should be orderly and bunching in the timing of foreign debt repayments should be avoided.

Foreign loans have been raised in several different currencies. This exposes the government to an exchange risk, varying according to the currency borrowed. Prior to 1965 public foreign debt was denominated almost entirely in dollars. Since then, foreign borrowing has seen two phases. Between 1965 and 1973 new foreign loans were spread fairly evenly between three currencies: Deutsche marks, sterling and dollars, in that order of importance. After 1973, however, when the rate of foreign borrowing grew dramatically, Deutsche marks and sterling both fell below 3 per cent of new borrowing, while dollars jumped to over 60 per cent. The remaining 30 per cent was divided about equally between currencies of European and of oil-producing nations.[13] This process of diversification is revealed in the currency composition of the stock of outstanding foreign debt in Table 3.7. The motive for diversification was partly to lower the cost of borrowing. Deutsche marks and sterling were avoided. The former carried a high likelihood of exchange loss, while the latter carried very high interest rates.

Table 3.7: *Currency composition of outstanding public foreign debt (at current exchange rates)*

	Sterling	*Deutsch Marks*	*Dollars*	*Other European*	*Middle Eastern*	*%*	*Total £m*
1966	19.2	12.1	68.7	–	–	100	58.1
1971	11.6	29.3	59.1	–	–	100	103.2
1973	20.3	40.6	39.1	–	–	100	147.7
1975	6.4	14.5	55.0	14.0	10.2	100	565.3

Source: Finance Accounts

Most foreign loans carried a fixed interest rate for the full term. However, the bulk of recent dollar borrowings carry interest rates that vary with market conditions. They are Euro-dollar loans whose interest rate is a fixed margin over rates in the London inter-bank market. In 1975 they represented about a third of the foreign debt.

All foreign loans have had at least five-year terms to maturity, and some up to twenty years. Since 1971 the maturity term on new foreign loans has shortened from 15–20 years down to 5–10 years. The repayment terms are

13 The European currencies included Swiss, Belgian and Luxembourg francs, Dutch guilders and European units of account. Most of these European currency loans were negotiated throught the agency of the EEC. Kuwait dinars and United Arab Emirates' dirhams made up the borrowings in oil producer currencies.

not uniform. Some are repayable *in toto* at maturity. Some are repayable in a number of instalments, or have a fixed annuity to cover interest and repayment, so that the debt is being gradually reduced throughout the term of the loan. Table 3.8 shows the maturity structure of foreign debt. The recent heavy borrowing in 5–10 year maturities has had quite a dramatic peaking effect on the structure, with very heavy concentration in the three-to-ten-year range and thinning in the two tails of the distribution. The implications of this maturity structure for the service of foreign debt will be examined below.

Table 3.8: *Distribution of the sterling value of exchequer foreign debt at current exchange rates according to the period it falls due for repayment*

Year	*Within one year*	*From one up to three years*	*From one up to five years*	*From five up to ten years*	*From ten up to twenty years*	*Greater than twenty years*	*Total*
1966 Mar	6.1	17.2	7.2	22.5	47.0	–	100
1970 Mar	4.4	9.8	10.4	36.0	39.4	–	100
1973 Mar	4.0	9.4	12.9	44.7	15.6	13.5	100
1975 Dec	2.1	9.4	32.0	49.2	3.8	3.5	100

Source: Finance Accounts

Table 3.9: *Holders of domestic debt*

		1969	*1975*
		%	%
Central Bank		6.6	5.4
Associated Banks		19.9	26.8
Non-associated Banks		0.5	4.3
Building Societies		0.5	2.1
Insurance and Assurance Companies		5.6	6.7
Government Departments		22.4	16.6
Other[(a)]		44.6	38.2
	%	100	100
Total	*£m*	829.0	1,975.0

(a) Includes holdings by non-residents, public trustee and other non-corporate bodies, superannuation funds, investment and unit trusts etc. and private individuals.

Source: Central Bank of Ireland Quarterly Report and *Finance Accounts.*

VI HOLDERS OF PUBLIC DEBT

Information about the holders of domestic marketable debt is available since 1969, but it gives no details of foreign subscriptions. Table 3.9 gives a picture of the distribution of the total domestic debt for 1969 and 1975. The emergence of the private financial institutions as important holders of domestic debt is a recent development. It will be discussed further in Chapter 5.

VII SUMMARY

Public Debt grew persistently over the post-war period accelerating dramatically since 1973. Inflation has taken a heavy toll on the real value of the outstanding debt, most of it without any compensation to the subscribers. Since the early 'sixties direct foreign and marketable domestic debt have come to dominate public debt. This reflects growing reliance on borrowing from financial institutions at home and abroad. The maturity term of these loans has shortened over the years.

Chapter 4

The Service of Public Debt

I INTEREST AND REPAYMENT OF DEBT

ENTERING into debt commits the government to meeting the contracted interest charge (paid annually or quarterly as the case may be), and ultimately redeeming the debt. These payments are collectively called debt service. The ratio of annual interest payments to the value of a public loan is called the nominal interest rate. Table 4.1 shows that the average nominal rate both on total public debt and its domestic component grew throughout the post-war period. Rising current market rates of interest and the drift of the structure of public debt towards more expensive market loans contributed to this growth. However, it has always been well below current market rates of interest. In the early years this was because of concessionary interest rates of 2½ per cent on Marshall Aid Loans. Subsequently, the discrepancy from market rates has been sustained because the bulk of the debt bore a fixed nominal rate for the full term of the loan. The current market rate was only paid on new borrowings. Thus, so long as market rates were growing – as they did throughout the post-war period – the average interest rate tracked them from behind. Of course if the trend in market rates turns around, contracts with fixed interest rates will deprive the government of the full benefit of cheaper credit.

Despite the growth in the nominal rate of interest paid on domestic debt, the *real* rate, which makes an allowance for the effect of inflation on the principal of the debt, has fallen persistently since the mid-sixties. In fact, the real rate has been negative for most of the post-war period as Table 4.1 shows, so subscribers suffered a real loss on their savings. The last chapter noted the distributional implication of the cumulated effect of this loss. It also has an important message for efficient allocation of resources. The real rate of interest paid by the government on its domestic debt does not give a true reflection of the opportunity cost of public borrowing if private investment is displaced. If public investment was appraised by comparing its returns to the cost of public borrowing, then an excessive share of investible resources would be drawn into the public sector. The only valid standard is to compare returns on public investment with returns on an alternative private investment.

Table 4.1: *Nominal rate of interest and rate of redemption of the total public debt; nominal and real rate of interest of domestic debt*

Period	*Total debt*		*Domestic debt*	
	Nominal rate of interest	*Ratio of redemptions to debt*	*Nominal rate of interest*	*Real rate of interest*
	%	%	%	%
1947–51	2.74	1.33	3.26	+0.42
1952–58	3.67	1.32	3.94	–0.79
1959–61	4.11	1.33	4.37	+3.24
1962–68	4.77	1.24	4.94	+0.93
1969–72	6.08	1.76	6.24	–2.69
1973–75	6.64	2.92	7.10	–9.82

Source: Finance Accounts, National Income and Expenditure, Statistical Abstract

Note: Interest and Repayments are taken from NIE and are not exactly comparable to Debt Totals used. The Real Rate of Interest is obtained by subtracting the rate of inflation of The Consumer Price Index.

Table 4.1 also examines the second component of debt service: redemptions. To date redemptions have been almost exclusively of domestic debt. The rate of redemption of debt has fluctuated sharply from year-to-year. It is influenced by the bunching of maturity dates on debt and by the success of offers of conversion of old debt stock to new issues. It has risen as high as 4.2 per cent on occasion. The rate of redemption has moved upwards in recent years. This occurred as the government encouraged a more active market in its domestic securities and allowed its debt roll forward to maturity instead of early conversion. However, redemptions are still remarkably low considering the proportion of debt falling due. For example, in 1973–75 on average 21.1 per cent of debt was falling due within twelve months, but only 2.9 per cent was actually redeemed.

As a result of the shortening of the maturity structure (see Table 3.5) occasionally as much as 35 per cent of domestic *marketable* debt has been due for redemption within twelve months. Before finding takers for new borrowing needs, maturing debt has to be rolled over. It is difficult to know whether rolling over the debt has been a serious difficulty. It seems unlikely. Rolling over the debt held by banks and insurance companies should not pose great problems because they tend to hold a stable proportion of their assets in this form. Greater difficulty could arise with a debt in the hands of the non-bank public. This amounted to just over 45 per cent of the marketable domestic debt (excluding that held by the Central Bank and the govern-

ment sector) in 1975. However, dealings from the officially held portfolios of public debt have been used to mop up debt due to mature within a short time. This facilitates the roll-over. Much of the debt is still rolled over by issuing conversion stock long before maturity.

The degree of bunching of final maturities around certain dates gives advance warning of potential roll-over problems. Bunching in this way is far less marked in the case of domestic than of the foreign debt discussed in the next section. Of the end-1975 domestic marketable debt, the largest proportion due to mature in any single year was 21 per cent in the following twelve months. Thereafter the proportion due in any single year fell away: 16 per cent in 1977, 10 per cent in 1978 and so on. Greater problems with roll-over do not seem imminent. The large figure for the year immediately ahead partly reflects the influence of bills which are three-month stock. They represented 7.5 per cent of overall end-1975 debt. They were counted just once above though, of course, they mature four times in the year.[14]

II DEBT SERVICE AND PUBLIC FINANCE

Although the bulk of public borrowing is devoted to capital spending, most of it is not self-financing. This is obviously so in the case of capital grants to the private sector, but it is also true of most direct infrastructural and social investments carried out by the government.[15] Public lending is the only component of capital spending which is completely self-financing. As a result, money for debt service must be found from the government's tax revenue or from new borrowing. The Irish practice has treated interest and amortisation of public debt as current expenditures. Under the balanced budget rule that prevailed up to 1972, they were accordingly met from current revenue. Amortisation is a charge on long-term loans that is paid into a "Sinking Fund" where it can be used to redeem debt immediately, or accumulate and be ready to meet the liability when it matures. Originally every long-term loan had an annual sinking fund charge which was so fixed that the fund would exactly match the outstanding liability when the loan matured. The purpose of the fund was to act as a depreciation charge on the public investment financed by the loan. If the term of the loan was chosen to match the durability of the public investment this practice would mean that depreciation was charged to current taxation according as the asset wore out. The intention of sinking funds, therefore, was to prevent irresponsible public finance by ensuring that all debt was backed by assets.

However the sinking fund charges have ceased to perform their intended purpose. The money accumulated in sinking funds has been used to finance

14 There is no difficulty in rolling over Exchequer Bills because of an arrangement that the Associated Banks automatically take up the bulk of each issue.

15 In 1975, for example, net trading and investment income yielded a nominal return of only 4.5 per cent on the estimated value of the public capital stock.

ordinary public capital spending, rather than invested with a view to having funds readily available to redeem debt at maturity. Conversion of old stock releases the money accumulated in its sinking fund to current revenue without creating a new liability. It also reduces the annual sinking fund charge.[16] On recent foreign loans and the bulk of medium-term loans individual sinking funds have been abandoned, and charges are only made to meet actual repayments. As a result total sinking fund charges have dwindled from 2.9 per cent of debt in 1971 to 1.8 per cent in 1975.

The usefulness of sinking funds as a check on public finance has become outmoded by the practical requirements of managing the public debt. They are now something of an anomaly that tends to confuse the meaning of government accounts. Their intended purpose could be served (a) by explicitly providing for positive government saving when there is a desire to recover ground lost by current budget deficits, and (b) by introducing a realistic charge on current taxation to cover the depreciation of direct public investments. In 1975 the depreciation charge only represented 2.0 per cent of the estimated public capital stock. This is not a realistic provision to cover obsolescence and wear and tear of the stock.

In practice, the only charges for debt service that must be financed are interest and *actual* redemptions of debt. Debt service is the *current* cost of running a public debt. Effectively it is, therefore, public consumption and should be met from current revenue rather than borrowing. On that principle all debt service which is not covered by depreciation or receipts from public assets should be charged to taxation. Table 4.2 shows the relationship of debt service charges to public current tax revenue. Interest payments grew as porportion of tax revenue until 1960. The proportion then stabilised and did not start to rise again until 1973. Public net income from its investments represented over 10 per cent of tax revenue up until 1960. It almost entirely relieved tax revenue from responsibility for interest payment on public debt. From 1960 net investment income dwindled in importance as less capital spending was devoted to lending where it yielded a direct income and a much larger proportion was spent on capital grants where no possibility of a direct yield existed. The proportion of tax revenue pre-empted to pay interest on the debt accordingly grew rapidly as the third row of Table 4.2 shows. It hit a peak of 7.6 per cent in 1975.

Redemption of public debt as a proportion of tax revenue is also shown in Table 4.2. It had a ratchet-like development, growing up to the beginning of the 'sixties then dropping sharply, but climbing back since. Depreciation allowance on public capital investments provide money to meet redemption. It has not been sufficient to cover redemptions in any of the periods shown

16 This occurs because a fixed annuity is set aside to cover interest and amortisation. As maturity approaches the share devoted to interest steadily falls because of accumulated amortisation. Pushing back the maturity date by conversion prevents this.

and the last row of Table 4.2 shows a similar ratchet-like growth of the charge falling on taxation.

Table 4.2: *Ratio to public current tax revenue of (a) nominal interest on total debt; (b) net trading and investment income and interest chargeable to taxation; (c) redemptions; (d) depreciation and redemptions chargeable to taxation.*

Ratio to Tax Revenue of:		*1947–51*	*1952–58*	*1959–61*	*1962–68*	*1969–72*	*1973–75*
(a) Nominal Interest	%	7.83	10.66	12.56	12.73	12.71	13.57
(b) Net Trading and Investment Income	%	10.15	10.08	10.86	9.35	8.08	7.33
(a) – (b)	%	–2.32	0.58	1.70	3.38	4.63	6.24
(c) Redemption	%	3.26	4.17	4.81	3.72	4.02	5.43
(d) Depreciation	%	2.86	3.33	3.68	3.29	2.96	3.21
(c) – (d)	%	0.40	0.84	1.13	0.43	1.27	2.22

Source: National Income and Expenditure.

A better view of the growth of the debt service falling on taxation can be obtained by looking at its relationship to total income. This ratio shown in Table 4.3 can be interpreted as the average addition to tax rates caused by debt interest and repayment. The upward trend in the tax rate needed for debt service is even more dramatic than its relation to tax revenue because public tax revenue has itself been growing in importance as the third column of the table shows. Overall, the need to service debt required a tax rate of 2.9 per cent in 1973–75 before any other purposes of government were served.[17]

Borrowing is effectively a means of deferring taxation. If *net* borrowing remains a stable proportion of income each year, the future tax rate needed to pay interest on debt will depend on (i) the real rate of growth of income, (ii) the nominal rate of interest and (iii) the rate of price inflation, besides the direct investment income generated from public investment. Projecting this future tax rate is highly speculative. Ignoring public investment income, the deferred tax rate will be smaller than the borrowing rate if the real *rate* of interest paid is smaller than the growth rate. This has always been true in the past. Thus the long-run tax rate for the current 10 per cent rate of net borrowing would be something below 10 per cent. As far as redemptions are

17 This taxation is redistributive in nature. Although the tax revenue is paid to the debt holder, the underlying redistribution is from the taxpayer to the recipients of public capital grants and of free services of public capital. The redistribution from taxpayer to the government's creditor is superficial since the lender would still earn an interest income (perhaps greater) from a private debtor.

concerned, projection is forlorn. The earlier discussion stressed that the charge on current tax revenue should be depreciation not redemptions. Redemptions depend on the willingness of the market to hold government debt. They cannot be predicted in advance, nor are they directly relevant to efficient allocation of resources in the public sector. They are important none the less since continued net borrowing depends on being able to find new takers for maturing debt.

Table 4.3: *Ratio to gross national product of nominal interest less net trading and investment income; redemptions less depreciation; and of total taxation.*

Ratio to GNP of:		*1947–51*	*1952–58*	*1959–61*	*1962–68*	*1969–72*	*1973–75*
Interest Chargeable to Taxation	%	0.00	0.12	0.37	0.89	1.40	2.15
Redemption Chargeable to Taxation	%	0.09	0.18	0.24	0.12	0.33	0.73
Total Debt Service Chargeable to Taxation	%	0.09	0.30	0.61	1.01	1.73	2.88
Total Taxation	%	20.60	21.50	21.90	25.20	30.00	33.78

Source: National Income and Expenditure.

The tax rate needed to service debt has been described as the 'burden' of public debt. This name is somewhat misleading because it suggests that nothing is obtained in return and that it should be reduced at all costs. The taxpayer in fact enjoys the services of debt-financed public investment, usually without charge. Even where borrowing is devoted to consumption or to grants to individuals with no return to the general taxpayer, complaint should focus on this spending policy not on debt service *per se*. The last section showed that the taxpayer in fact succeeded in financing public capital spending by domestic debt at a negative *real* cost because of the effect of uncompensated inflation on debt holders.

In one sense there is a 'burden' attached to taxes needed to service public debt. It stems from certain dead-weight costs associated with raising taxation. The most obvious is the cost of collection and administration. Another is that unless lump-sum taxes[18] are possible, taxation diverts resources from the uses where they yield their owners' maximum return. For example, income tax creates a disincentive to work in financially remunerative employment. It was not possible to assess such costs associated with a tax rate for debt service. It is likely that they will be greater, the higher the rate of tax imposed for other purposes. Table 4.3 shows that over the post-war period the grow-

18 These are taxes where the amounts paid to the individual are not related to any decisions made by him. An example is a poll-tax.

ing tax rate for debt service was against a background of rising tax rates for other purposes also. Thus the costs of administration and disincentive caused by debt service are probably becoming more serious. By driving a wedge between the social cost of taxation and its yield to the government, these frictions put a constraint on both current and capital public spending which is not self-financing. In the case of debt-financed capital spending it puts an additional priority on projects which at least generate taxable private incomes *outside* the public payroll, even if not directly self-financing.

Debt service causes a tax friction of another sort by hampering short-run management of the economy. It is a fixed call on public revenue that may constrict spending in a recession when revenue is less buoyant. To the extent that this prevents appropriate stabilisation of the economy, it may also inhibit private investment. It is thus a potential source of both short-term and long-term loss to the economy.

III THE COST OF FOREIGN DEBT

Although all borrowing draws resources into the public sector, domestic and foreign borrowing differ in regard to the asset displaced. When the private sector has poor access to foreign capital markets, internal borrowing immediately draws domestic resources from private capital formation. The subsequent service of the internal debt places no drain on domestic resources but is a transfer between taxpayer and bond-holder in the domestic private sector. External borrowing makes no immediate call on domestic resources, by permitting real resources to be brought in from outside the economy to the public sector. However, servicing foreign debt draws directly on domestic resources. Thus, foreign borrowing defers withdrawal of resources from the domestic private sector. Even if foreign borrowing has the same effect on future private disposable income as displacing private investment, it can blur perception of this opportunity cost at the time of borrowing. Greater vigilance is therefore needed with foreign borrowing to prevent short-sighted public decisions.

Table 4.4 examines the cost of servicing foreign debt over the past thirty years. Unlike domestic debt, the service cost of foreign borrowing represents the true opportunity cost of the investible resources brought into the public sector. Foreign loans obtained on cheap terms, or eroded by the effects of inflation or appreciation of the domestic currency, are a genuine relief to the domestic economy. Thus, the service costs of foreign borrowing are of direct relevance to public decisions about resource allocation whereas the cost of domestic borrowing bears primarily on the matter of income distribution.

Deferred interest on Marshall Aid borrowing caused a sharp dip in the average nominal rate of interest on foreign debt after the war, dropping from 5.0 per cent in 1947 to 0.4 per cent in 1952. This recovered when interest began to be paid, but Marshall Aid was still very cheap (at 2½ per cent) by

previous standards. Renewed borrowing from 1965 brought a brisk increase in nominal interest rates illustrated in Table 4.4. None the less, the rate of nominal interest paid on foreign debts has been persistently lower than on domestic debt throughout. [Compare with Table 4.1]. Even recent foreign borrowings were obtained on cheaper nominal terms than their domestic counterparts.[19] However, foreign debt exposes the borrower to an exchange risk. Almost without exception, each year since 1967 brought new exchange losses on the Irish foreign debt. Table 4.4 shows that these losses were a significant annual cost added to the nominal rate of interest. Even so, the third column shows that when allowance is made for domestic inflation, foreign debt was obtained at a negative real annual cost for most of the past decade, though its real cost has exceeded that of domestic debt in virtually every year since 1972. Foreign lenders were caught unawares by accelerated inflation even though they did not fare quite so badly as domestic lenders. It is difficult to expect that public foreign loans will continue to be obtained on such favourable terms. Over half of recent external borrowings bear a variable interest rate which responds to price inflation. Already over a quarter of all foreign debt is in this form. At the same time, the real cost of loans with fixed nominal interest rates will grow as the rate of inflation subsides. It is difficult to predict where the real cost is likely to settle. However, it appears that public foreign loans can still be secured at relatively low cost.

Table 4.4: *Foreign debt: nominal rate of interest, ratio of annual exchange loss and of total real annual cost to outstanding foreign debt.*

	Nominal rate of interest (%)	*Annual increment of exchange loss (%)*	*Real annual current cost (%)*
1947–51	1.99	3.29	+2.44
1952–58	2.54	0.00	–2.18
1959–61	2.71	0.00	+1.58
1962–68	2.95	1.66	+0.52
1969–72	4.61	1.18	–2.88
1973–75	4.59	6.82	–5.51

Source: Finance Accounts, IMF Statistical Bulletin.
Note: Real Annual Cost = Nominal Interest Rate plus Annual Increment of Exchange Loss Minus Rate of Inflation of Consumer Price Index.

19 When comparing the nominal interest paid on domestic and foreign debt, it should be borne in mind that interest paid to non-residents is not taxable. The discrepancy in tax treatment virtually eliminates the difference when considering the net impact on exchequer resources of interest payments.

Table 4.5 takes a closer look at the recent exchange losses incurred on foreign debt. The first major loss occured in respect of Deutschemark and dollar borrowings with the sterling devaluation of 1967. The cumulated loss on outstanding debt reached 19.6 per cent in 1968. Apart from 1971–72 when the pound rallied against the dollar, each year has brought fresh losses, but new borrowing has limited the size of the loss relative to the stock of debt.

Table 4.5: *Cumulative unrealised exchange loss since issue on the outstanding public foreign debt various years*

	Loss (£m.)	*Ratio to Stock of Foreign Debt (at current exchange rates)*
1947	0	0
1966	5.1	8.8
1971	13.6	13.2
1973	22.1	15.0
1975	95.7	16.9

Source: As in Table 4.4

IV SERVICE OF EXTERNAL LIABILITIES AND THE BALANCE OF PAYMENTS

Foreign exchange is needed to make the real resource transfer involved in servicing foreign debt. This poses a new type of problem in a country where imports are essential but export capacity is limited. Although the problem also arises in repatriating profits on foreign direct investment, it can be particularly acute with public debt. Service of public debt makes a rigid demand on foreign exchange earnings, whereas returns on direct investment are likely to move in sympathy with export earnings and relieve pressure on foreign exchange reserves in a lean year.

Table 4.6 shows that although interest and repayments on public foreign debt have grown rapidly, they still make a very small demand on export earnings. The present level of repayments is artificially low because most of the foreign borrowing is of such recent origin. The maturity structure of foreign debt studied in Table 3.8 revealed close bunching in the maturity dates of foreign loans. Heavy repayments are due between 1979 and 1982. Almost 20 per cent of the existing foreign debt equivalent to 8 per cent of 1975 export earnings falls due for repayment in each of those years. Actual transfers of this size could pose serious problems for the balance of payments: it highlights the danger of a loss of foreign confidence which would make it difficult to roll-over maturing debt.

Table 4.6: *Foreign debt: ratio of interest and repayments to exports of goods and services*

	Ratio to Exports of:		
	Interest	*Repayments*	*Total debt service*
	%	%	%
1947–51	0.15	0.03	0.18
1952–58	0.62	0.08	0.70
1959–61	0.50	0.23	0.73
1962–68	0.43	0.33	0.76
1969–72	0.71	0.55	1.26
1973–75	1.03	0.46	1.49

Source: Finance Accounts, National Income and Expenditure

All forms of foreign capital command an investment income. Throughout the post-war period investment income paid abroad was more than balanced by earnings on Irish capital invested abroad. The surplus amounted to a steady 5 per cent of total export earnings until 1968. Since then, it has fallen by over 50 per cent in absolute size to a trivial 0.7 per cent of export earnings in 1975. The economy appears on the point of swinging from a net creditor to a net debtor position as a consequence of recent large net inflows of foreign capital portrayed in Tables 1.1 and 1.2. The long-run implication for the balance of investment income of a continuing net capital inflow of, say, 5 per cent of GNP can be projected. It hinges on the relationship between the real rate of return paid on foreign capital and the real rate of growth in the economy. If the growth rate is the smaller of the two, net investment income paid abroad will, in time, exceed 5 per cent of income or over 10 per cent of export earnings. The actual demand on export earnings to meet this investment income deficit is larger still, because Irish exports have a large import content. In 1968 the import content of exports was 40 per cent, and it is rising as agricultural exports decline in relative importance. Thus, the investment income deficit would absorb at least 16 per cent of gross export earnings and considerably more in a lean year.

Substantial transfers of foreign exchange to pay investment income on foreign capital, or to meet repayment demands on the public foreign debt are in prospect if present reliance on foreign capital inflow continues. The balance of payments would then become particularly vulnerable to a slackening in the economy's growth performance. This would shake foreign willingness to lend, particularly if it followed a period of heavy foreign borrowing. There would be large demands for repayment of maturing debt, just at

the time when sluggishness in export earnings reduced the capacity to meet such demands. The balance of payments would be even more vulnerable if the maturity of foreign debt happened to be bunched. The government and indeed the economy as a whole, could find itself in the position of having to make abrupt adjustment to a reduction in availability of funds from abroad. The turnaround from a net creditor to a net debtor nation highlights the importance of facing up to these difficulties. The level of reliance on foreign capital should be carefully appraised while there is still room to manoeuvre. The present scale of inflow may be deemed appropriate. If so, the government must become more vigilant in operating an orderly policy of foreign borrowing and debt management. The potential scarcity of foreign exchange means that investments which do not raise the capacity to earn or save foreign exchange must be given a lower priority in both public and private sectors.

V SUMMARY

The nominal rate of interest on public debt has steadily climbed over the post-war period. The rate of redemption of debt has been relatively low, though it too has tended to grow. Combined with the growth of debt, absolute repayments for interest and redemption have mounted rapidly, but their ratio to tax revenue has been contained to about 13 per cent and 4½ per cent respectively. However, the portion covered by current revenue from government assets has dwindled, leaving a mounting debt service charge to be found from taxation. This reached 2.9 per cent of GNP by the end of the period.

The real rates of return on domestic and foreign debt have both been negative for most of the past decade. For foreign borrowing this represents the true opportunity cost to the economy, so the policy of heavy public foreign borrowing of recent years has a sound economic justification if the money is devoted to worthwhile investments. A warning note is sounded that the service of foreign debt could become an embarrassing drain on the balance of payments. Priority for investment producing competitive tradeable goods is a necessary precaution against this.

Chapter 5

Management of the Public Debt

WHEN arranging the composition of public debt, a government must keep a number of different objectives in mind. First, it is concerned to contribute to the stabilisation of the economy. Second, it wishes to finance the Exchequer as smoothly as possible and at a low cost in interest. Finally, it wants to foster the development of domestic financial markets and in particular to encourage the use of domestic savings at home. These aims may occasionally conflict and the government must decide upon some order of priority.

I SHORT-RUN MANAGEMENT OF THE ECONOMY

The structure of public domestic debt can only have a strong influence on aggregate demand if the capital market is self-contained. Comparatively small changes in structure can then have an appreciable impact on the relative supply of assets available to domestic buyers. The public will only be content to hold the changed structure of assets if the relative rates of return on different financial assets change. Shortening the maturity of debt forces a decline in the nominal return on equity, and in the banks' long lending rates, before the extra liquid public debt can be absorbed. Cheaper credit will then stimulate investment so long as prospective returns are not depressed by recession. However, if capital is mobile in and out of the country, changes in the composition of government debt will be unable to influence interest rates. Broadly speaking this is the situation in Ireland.

Capital flows between Britain and Ireland are largely uncontrolled and free from exchange risk. There are many close substitutes in London for nearly all Irish Government Stock on issue. As a result, direct contact with London market severely limits influence over interest rates. In the same way, it curtails the government's ability to lever the banks' liquidity in an effort to force them to ration credit. Added to this, the Irish banks traditionally held large holdings of foreign assets which ensured that they could offset any influence on their liquidity of a change in the structure of public debt. By simply encashing some of their overseas assets they could restore their liquidity to any desired level.

However, during the 'sixties the government has moved into a position where it has more scope for influencing the availability of credit in the economy. First, the banks here turned around from being a creditor to being a debtor in the overseas market. Borrowing constraints suggest that it may no longer be so easy for them to offset a squeeze on their liquidity. At the same time, government debt has greatly increased its share in the domestic lending of financial institutions, rising to almost 30 per cent by 1975. The liquidity of most of the other lending enhances the potential for squeezing bank liquidity through the structure of public debt. The growing potential to influence credit was consolidated in 1971 by imposing minimum liquidity ratios and by making the form of bank lending more susceptible to control.[20]

Despite these developments the government has not tried to use the structure of public debt to regulate aggregate demand. Indeed in 1966 and 1970, the two years when the government took firm deflationary fiscal measures, the maturity structure shortened distinctly, easing liquidity constraints on the banks. Anyhow, short of major changes in the debt structure, the scope for affecting liquidity by debt management remains quite small. The banks can still offset any feasible restrictive change in the structure of public debt, despite their net liability position. Changing minimum liquidity requirements seems a more potent weapon for monetary control but its effectiveness has not been properly tested yet. To date monetary policy has relied on credit guidelines. In any event, the effectiveness of credit control over aggregate demand is unsure particularly in a recession.

II FINANCING THE EXCHEQUER AND FOSTERING IRISH FINANCIAL MARKETS

Since capital mobility limited the influence over aggregate demand, debt management policy was left free to pursue the narrower goal of obtaining government credit in the smoothest and cheapest manner.

In principle, the government can reduce the cost of debt by active trading in its securities. The aim here is to minimise the sum of interest payments plus the expected increase in the market value of debt. When the government expects that a capital gain will be made by holders of long debt (through a fall in interest rates), it should reduce the amount outstanding, provided the capital gain outweighs the higher interest cost of short debt. In this way, the gain would be won for the taxpayer. This method of saving on the cost of debt relies on the government out-guessing the market. It contains an element of gamble. It has not been practiced in Ireland. The potential savings

20 Minimum Ratios of both Primary Reserves (cash and Central Bank balances) and Secondary Reserves (Primary Reserves plus government marketable debt) to total liabilities were introduced. For the Associated Banks they stand at 13 to 30 per cent respectively, for the Non-Associated Banks 10 per cent for both ratios. The form of personal borrowing was changed from overdraft to term loans which removes the borrower's ability to frustrate a restrictive policy.

are hardly great in the relatively small and open market for Irish public debt. In all probability it would also conflict with smooth placing of the debt.

A number of other actions probably served to reduce the cost of credit. Reserve requirements on financial institutions created a certain captive market for government debt. As a result better terms were probably obtained for the amounts placed on the free market. Tailoring debt to the particular needs of debt holders made government debt more attractive and again reduced its cost. For example, short dated public debt was introduced, and more recently the government has offered small savers a degree of purchasing power protection. However, the ease of obtaining substitutes in London markets meant that the primary motive behind these actions was to foster demand for Irish government stock. The concern to reduce the cost of debt took a lower order.

From about 1967, the Central Bank and the Department of Finance (acting through the holdings of departmental funds) began to promote a more active market in Irish government securities. Greater diversity was introduced in the maturity terms of public debt, and the government began to actively trade in its securities. Diverse and readily encashable securities were intended to fill the place in the commercial banks' financial structure traditionally occupied by British government debt. Irish securities were tapped to the market whenever demand was strong. The primary aim was to bring resources back into the economy which were previously invested abroad. The policy facilitated the heavy public borrowing from the banks since the mid-'sixties. As noted, this has greatly increased the importance of Irish government debt in the financial structure of the banking system.

Besides keeping down the interest cost and fostering demand for debt, another important tactic in debt management is to avoid large volumes of securities maturing at any one time. Large refunding operations can cause considerable problems when the market for public debt is thin. Early conversion avoided such difficulties in the case of domestic debt but the maturity dates of external debt is quite bunched. In general, the government is inclined towards long-dated securities to keep down the frequency and volume of transactions in the market, at least when this does not stifle demand for government securities.

The usual point of conflict in debt management is between the aim of stabilising the economy and of placing the debt as cheaply as possible. When private investment demand is low, long-term government debt can be issued easily, and cheaply, but stabilisation calls for shortening of debt structure. Another potential conflict arises when trading in securities, between the aim of winning capital gains for the taxpayer and fostering demand for public debt. The former requires government to outguess the market, whereas the latter calls for the government to stabilise the market. Neither of these sources of conflict have been of any concern to the Irish government because no attempt has been made to use debt management to stabilise aggregate

demand or to speculate in security markets. The overriding concern has been to maximise the sales of government stock.

Chapter 6

Recent Developments

I PUBLIC BORROWING

A brief look at what has happened since 1975 is worthwhile before concluding the argument of this paper. Some of the information necessary to make an exact comparison with the earlier period has not yet been published, but the broad picture is clear.

The economy gradually began to recover from recession during 1976. Table 6.1 (a) shows the quick recovery in the rate of investment from the trough reached in 1975. The ultimate sources of finance for investment changed quite dramatically in response. Foreign funds once again made a sizeable contribution, as a balance of payments deficit re-emerged. Total net capital inflow climbed to take a 43 per cent stake in net growth of the economy's capital (illustrated in Table 6.1 (b)). The point of interest for public debt policy is the decline in the rate of public dissaving. In other words, the amount of government consumption financed by borrowing fell relative to Gross National Product.

This change shows up dramatically in Table 6.2 which presents the various contributions towards financing governemnt capital spending. As recovery took hold from 1975 through 1977, the government halved the ratio of its dissaving to capital spending. Moreover, it declared the intention of restoring balance to the current budget (i.e., zero dissaving) by 1978. The dependence

Table 6.1 (a): *Resources for domestic physical capital formation: ratios to GNP*

Year	*Gross central government saving*	*Gross private saving*	*Deficit in current balance of payments*	*Gross domestic physical capital formation*
	%	%	%	%
1975	–5.6	30.5	0.5	21.8
1976	–3.2	28.5	3.3	24.7
1977	–2.7	29.3	4.3	27.7

Table 6.1 (b): *Total net inflow of foreign capital: ratio to gross and to net domestic physical capital formation.*

Year	*Net inflow/gross investment*	*Net inflow/net investment*
1975	19.8	31.0
1976	28.4	41.4
1977	30.7	42.7

Source: Budget Booklet, ESRI *Quarterly Economic Commentry, Central Bank Quarterly Report.*

on net borrowing for finance correspondingly fell up to 1977, as the Table reveals.

It brought a decline in the ratio of net central government borrowing to GNP from 12.8 per cent in 1975 to 10.5 per cent in 1976 and 10.0 per cent in 1977. As the rate of borrowing fell, it became possible to raise most of the funds at home as is again clear in Table 6.2. Sales of marketable securities continued to dominate domestic borrowing. However, less of these were sold

Table 6.2: *Central government capital spending: sources of finance for it; its share in gross domestic physical capital formation.*

			Net borrowing of which		*Central government capital spending*	
	Gross saving of central government	*Other capital receipts*	*Total*	*Foreign*	*A share of gross domestic investment* *Total*	
	%	%	%	%	%	%
1975	–73.4	6.4	167.0	56.5	100	35.1
1976	–40.2	6.8	133.4	91.7	100	31.8
1977	–34.6	5.5	129.1	20.5	100	28.0
1978	–71.6	5.5	166.1	(n.a.)	100	27.0

Source: As for Table 6.1.

to the banks than in the recent past. The greatest growth was in sales to the building societies and insurance companies, though foreigners also showed greater interest in the government's domestic issues. Borrowing from the ordinary public has been more buoyant as well, both through sales of securities and small savings.

The change of government in mid-1977 ushered in a new approach to public borrowing. The 1978 budget projections are shown in the last row of

Table 6.2. Renewed growth in public net dissaving has replaced the previous government's target of a balanced current budget. The downward trend in dependence on borrowing is sharply reversed, and it is expected that net borrowing will rise to 13 per cent of GNP during 1978. Despite this growth in borrowing, the government hopes that the bulk of the funds can be secured at home without recourse to foreign markets. Thus private inflows of foriegn capital will be necessary to finance the likely increase in the balance of payments deficit.

The strategy behind these changes has been explained in the budget speech and the government's White Paper. It is intended to use borrowings to finance a big expansion in public service employment. This will stimulate demand in the private sector during 1978. It is hoped that the response to this stimulus will provide sufficient growth in private incomes in 1979 and 1980 to allow the cost of the extra public service employment to be transferred back to the taxpayer then. This is expected to relieve the borrowing requirement to 10.5 per cent of GNP in 1979 and 8 per cent in 1980. The government believes that it is taking a calculated gamble in pursuing this policy. The chief anxiety is whether the government has done enough to procure the targeted employment growth of 5.9 per cent per annum in private manufacturing industry. Even in the prosperous years before the oil crisis, only 2 per cent growth in manufacturing employment was achieved. It is hard to believe a transformation will result from a temporary tax relief or from a demand stimulus that was not seriously wanting. However, besides these measures, few changes in the existing policies for promoting industrial expansion have been put forward. All the White Paper has promised is a complete review of these policies in the near future.

There are a number of dangers in this strategy. Drawing heavily on foreign resources to finance public consumption during a recovery will reduce the economy's room for manoeuvre in face of a renewed downturn. Besides, if the growth in private income is not sufficient to allow the cost of extra public employment be borne by the taxpayer, the choice then will be between continued borrowing to support public employment (i.e., public dissaving) or a sharp retrenchment in public spending. Neither of these prospects is attractive. The first promises a continuous drain on investible funds to support public employment and causes a continuous growth in "dead-weight" debt to be serviced. The second promises a sharp deflation in public demand with inevitable effects on employment. Both prospects would handicap the long-term employment prospects which are now the central aim of Irish economic policy.

II DEBT AND DEBT SERVICE

Although the rate of net borrowing relative to GNP fell from 12.8 per cent in 1975 to 10.0 per cent in 1977, this was still almost twice the rate of borrowing of the 'fifties and 'sixties. The absolute level of debt continued to

grow rapidly, averaging 23.4 per cent per annum between 1975 and 1977. Table 6.3 shows how the debt evolved relative to GNP over these years. The debt ratio rose sharply in 1976, but in 1977 it fell for the first time since 1973. This reversal was brought about by the changed fortune of sterling on foreign exchange markets. Had sterling suffered the same depreciation in 1977 as in the previous year, the debt ratio would have grown by two percentage points instead of its recorded fall of 3 points. This turnabout shows up more emphatically in the sharp fall in the ratio of foreign debt to GNP and to external reserves recorded in 1977. In fact the gain from sterling's appreciation exceeded the comparatively low level of new foreign borrowing in 1977, and the absolute value of the foreign debt recorded its first fall for a decade. Looking ahead to 1978 a dramatic jump is projected in the debt ratio. This projection is based purely on government borrowing plans and assumes no change in the foreign exchange value of sterling in 1978.

Table 6.3: *Ratio of foreign debt (at current exchange rates) to official external reserves and ratio of foreign, domestic and total public debt to GNP*

		Ratio to GNP		
End year	*Foreign debt ratio to reserves*	*Foreign debt*	*Domestic debt*	*Total debt*
1975	83.8	15.4	59.1	74.4
1976	108.8	23.2	57.3	80.5
1977	85.7	19.1	58.5	77.6
1978	na			92.8

Source: Finance Accounts; Budget Booklet; ESRI Quarterly Economic Commentary; Central Bank Quarterly Report.

Note: The figure for domestic debt is not exactly comparable to that used earlier in the text. The difference increased the total debt ratio from 69.0 per cent to 74.4 per cent in 1975.

Table 6.4 studies how the cost of carrying public debt has evolved since 1975. The nominal rate of interest on domestic debt has continued to grow despite the downturn in market rates of interest during 1977. The real rate of interest (i.e., adjusting for the rate of inflation) remained negative, inflicting continued losses on subscribers to government debt. However, with the expected drop in the rate of inflation to 7 per cent in 1978, the real rate of interest may be expected to turn positive for the first time for over a decade.

The real annual cost of foreign debt was greatly influenced by the fortunes of sterling over these years. Heavy exchange losses in 1975 and 1976 were sufficient to prevent rapid price inflation producing a negative real cost

Table 6.4: *Financial costs of public debt and its components*

	1975	1976	1977	1978
Domestic Debt				
Nominal Interest Rate	7.6	8.5	9.0	na
Real Interest Rate	–9.0	–10.8	–1.8	
Foreign Debt				
Nominal Interest Rate	5.3	4.7	5.3	na
Exchange Loss (+) in the year	9.7	15.2	–9.4	
Real Annual Cost	–1.6	+0.6	–14.9	
Total Debt				
Nominal Interest Rate	7.2	7.4	8.1	8.6
Ratio of Interest to Central Government Current Tax Revenue[a]	18.3	18.5	19.9	22.6

Source: As for Table 6.3

[a]The figures here are not comparable with those used earlier in the text. The principal difference is that tax revenue of the Central Government alone is used here. The changed measure increased the interest burden from 15.2 per cent of tax to 18.3 per cent in 1975.

which would have been expected considering the low nominal rate of interest. Whereas, in the following year when the rate of inflation slowed down, a sizeable exchange gain meant that the real cost to the economy of public foreign debt turned out to be sharply negative. At all events the real cost of public foreign borrowing has remained very low.

The final row of Table 6.4 focuses on the relation of debt interest to tax revenue. It continued on the upward path begun in the early 'seventies and can be expected to grow even faster in 1978 (as projected) and afterwards in the face of renewed borrowing and the return of positive real rates of interest. Data are not available to examine how much of debt interest was met by government net trading and investment income. However, in view of recent borrowing for consumption it seems probable that this income has diminished in relative importance, so the premium placed on tax rates by debt service has probably risen above that recorded in 1975.

The happenings since 1975 make the issues discussed in this paper all the more pertinent. Employment creation in a developing economy has now clearly emerged centre-stage among Irish economic priorities. The government has pledged itself to take a more vigorous role in tackling this development problem. At the same time, debt policy has taken a turn that runs counter to instinctive prudence in the use of borrowed funds.

Chapter 7

Concluding Remarks

PUBLIC debt emerges from the methods used by government to finance its spending. Thus, a study of public debt bears on all areas of government activity, at least indirectly. Moreover, the first two chapters illustrated that public borrowing has a direct bearing on the government's policies for allocation of investible resources and for stabilisation of the economy.

I THE GOALS OF PUBLIC BORROWING

Borrowing channels investible funds to the government. Broadly speaking, they are drawn from overseas even when the government does not directly borrow abroad. Thus, public borrowing is a key influence on the level of investible resources available to the economy and on how they are disposed. Borrowing to finance public consumption amounts to government dissaving. It sacrifices an opportunity for capital formation. In a developing economy where savings are scarce, it conflicts with the government's role of increasing the employment capacity of the economy. This role of promoting development is the rationale behind the rule of balancing the current budget. In an effort to keep the growth of public current services within the productive capacity of the economy, it deems that they should be financed by taxation, not borrowing. In 1972, the balanced budget rule was abandoned. The rate of public borrowing doubled in the years that followed, and by 1975 more than half of it was financing consumption. These trends moderated after 1975 as the economy pulled out of recession, but now they are being adopted with renewed vigour as a part of the government's development programme.

This new strategy is out of tune. Certainly, the balanced budget rule is not perfect. There is a degree of arbitrariness in what is classified as capital and qualifies for the soft method of debt finance. However, this weakness can only be corrected by a method of systematic appraisal of public spending. This would take due account of all objectives pursued when evaluating public spending. Relief of bottlenecks in the economy (such as particular types of workers who are without employment and training; scarcity of foreign exchange and so on) would be given special priority in spending programmes. The expected timing of the benefits of the spending would dictate the ap-

propriate manner of finance, and contribution to capital formation would still be the acid test in the use of borrowing.

The recent inclination to use borrowing to finance public consumption probably reflects frustration in grappling with cyclical and structural employment problems in a mixed economy. The traditionally accepted spheres of direct government investment are restricted, and incentives to private investors are often unreliable or ineffective. However, this reaction should be resisted. The correct response is to seek out new forms of investment venture that can be financed by government. Several avenues are ripe for exploration: joint private-public undertakings, supply of risk capital to new businesses (often shunned by existing financial institutions and State agencies), incentives to trained personnel in the public service to undertake industrial projects, etc.

Successive government programmes for economic development slipped over the task of scrutinising the contribution of public capital spending to development. This is the only reliable means of arriving at the correct level of public borrowing and investment. The cost of debt service is no guide in this matter because it is not the true cost of opportunities foregone. The negative real rates of interest paid on the debt is a glaring illustration of this point. A comparison of returns on marginal investment in the public and private sectors is the only guide. Public spending proposals should be presented in a form where this can be done. Without it, government decisions on the level and composition of its burgeoning spending remains somewhat haphazard. Parliamentary control of spending is made difficult and wasteful use of resources is inevitable.[21]

Short-run disturbances in the economy may create the need to increase or cut back on the level of public capital spending. However, they rarely call for any modification in the government's stance towards development, which lays down the sort of spending legitimately financed by borrowing. Recently the government has regarded borrowing for public consumption as an appropriate response to recession. That view is rejected here. What a recession does is change the opportunity cost of idle resources. It justifies bringing forward the timing of a number of investment projects. This is a potent method of stimulating demand. There is no need for government dissaving.

II RELIANCE ON OVERSEAS CAPITAL

Because public borrowing draws funds into the economy from abroad, it raises the wider issue of the economy's reliance on foreign resources. The

21 The Minister's promise in the 1978 budget that "over a short period of years the entire field of government expenditure will have been subjected to a searching in-depth re-appraisal" is a hopeful sign. The public's elected representatives should play an active role in this re-appraisal.

basic principles are not new. Foreign resources should only be used to supplement the domestic development effort. Foreign funds are desirable to finance extra capital formation, so long as the investment return is greater than the cost of the funds. However, making use of foreign capital also raises some further issues peculiar to itself. One aim is to tap the source of foreign capital that offers best terms. It is seldom easy to select this. For example, direct foreign investment usually offers foreign expertise, access to a market, and a foreign share in risk-taking and profits along with investible funds; whereas public foreign borrowing yields funds at a fixed interest cost but with an exchange risk. There is no single cost that can be compared, but different combinations of attractive and unattractive features. Information on the cost to the economy of direct foreign investment is sketchy. The real cost of public foreign loans has been negative for most of the post-war period. It is hard to believe that alternative sources of foreign funds could be so cheap. There is at least a *prima facie* case for the government offering low cost funds to private domestic investors from its own overseas borrowing.

A second feature of using foreign capital is that the economy must be able to find foreign exchange to pay investment income and other repatriations without precipitating sharp adjustment in the economy. This problem is now appearing on the horizon in Ireland. Net capital inflows currently represent 30 per cent of gross investment and the economy is on the point of becoming a net debtor for the first time. Avoiding balance of payment difficulty is a delicate operation because foreign confidence in the economy is liable to be fickle. The government can minimise the dangers in a number of ways: ensuring foreign exchange reserves are adequate to provide cover against reasonable disturbances; giving priority to investments that make foreign exchange savings; providing a direct link between finance and investment through project loans; and finally managing its own borrowings and debt to avoid short-term strains.

Finally, a third feature of using foreign capital is that it gives foreigners a stake and influence in the economy. At present net capital inflow represents over 40 per cent of *net* investment. At that rate foreigners would lay claim to a sizeable share of the Irish capital stock within a very short time. On this, as on all these matters, a strategy best suited to the country's development aims must be found.

III CARRYING THE PUBLIC DEBT

Besides using borrowing in light of the development and stabilisation needs of the economy, the government must also consider financial service and management of debt. Chapters 4 and 5 focused on these issues.

Levying current revenue to pay the charges for debt service implements decision implicit in the original borrowing policy. It should cover interest on the public debt and a realistic depreciation charge on direct public investment. At present, the government operates an antiquated system of debt

service that has become outmoded by the practical requirements of debt management. It no longer performs the function of collecting a realistic depreciation charge from current revenue. Replacing this system by one adequate to the job would contain the growth of dead-weight debt and make government accounts more easily understood.

Although real interest rates on the debt have been persistently negative since the late 'sixties, financial charges on public debt have recently been growing considerably faster than government revenues. Moreover, because of the nature of recent debt-financed spending, almost half of interest and repayments have now to be collected from taxation, amounting to a tax rate of 3 per cent on GNP. This premium on taxes raises some difficulties of its own. It can hamper short-run fiscal policy, and inhibit the best allocation of resources in the private sector.

Rapid inflation has eroded the real value of domestic debt. Negative real rates of interest testify that debt subscribers have received scarcely any compensation for its influence. This has produced two notable distributional effects. First, uncompensated inflation has re-distributed wealth from the debt-subscriber to the general taxpayer. Second, by failing to differentiate between interest income which maintains the real value of principal, and that which adds to net worth, the present tax system discriminates against persons receiving their income from lending. There is little merit in these indiscriminate and irregular forms of re-distribution. Many who could ill afford it suffered a loss, often in faithful response to government appeals. The fact that a large proportion of public debt is held in financial institutions does not alleviate the loss on savers. It filters back to the holders of deposits or insurance contracts. Indeed, it is hard to understand how financial institutions have been so inept in conserving the real value of the assets entrusted to them. The only redeeming feature is that these institutions probably serve to spread the loss more evenly through the population.

The influence of inflation on debt also raises some questions concerning the allocation of resources. First, the impact on private saving habits is unsure. The public may try to restore its real wealth; or it may be blinded by money illusion and treat compensation for inflation as income. Second, there is probably a temptation for the government to over-expand its borrowing in reaction to the relief of real financial cost.

Of course, the problem of the effects of inflation goes far beyond the Irish public debt. Expecting Irish debt to offer positive returns is a bit reminiscent of the mother who insisted that her Johnny was the only one in step in the marching out parade. However, variable interest rates on public debt would at least give lenders to the government the same protection as lenders to private sector. It would, at the same time, promise more efficient allocation of funds between public and private sectors, when funds are available to both on the same terms.

The goals of debt management are severely restricted in Ireland. The open

capital market frustrates any influence over aggregate demand; and speculative trading in debt to save on service charges is avoided for fear of undermining the market. The overriding concern in debt management has been to foster demand for public debt. Too little attention is devoted to operating a structure of debt that can be conveniently rolled over. Matters would be improved by promoting a better spread in the maturities of foreign debt. Another improvement would be to issue irredeemable debt with variable interest rates. This would be particularly suited to financial institutions which have a steady demand for securities. It would avoid the administrative problems of conversion at maturity.

This study broached on a wider scope of issues than expected when first undertaken. The potential of public finances to contribute to the development of the economy has been a recurring theme. Many of the issues exposed could not be satisfactorily pursued. Perhaps the exposure will dispel some of the mystery surrounding public debt, even if the search for answers has only just begun.

Appendix

Comparative Debt Situations

THIS appendix takes a brief view of Ireland's debt situation in an international setting. Because definitions often differ from country to country, comparisons are fraught with dangers. All statements must be made with some reservations.

The first column of Table A.1 shows that the ratio of public debt to GNP is far higher in Ireland than in most other mixed economies of the developed world. The United Kingdom alone surpasses Ireland. Apart from Italy and the Benelux, continental European countries carry small public debts. High debt seems to feature in the countries that have come under the influence of British financial practice. Debt ratios have fallen in virtually all the countries since 1960, despite continued growth in the *absolute* level of public debt. Over the period from 1960, Ireland's debt ratio stepped up from 75 per cent to 120 per cent above average for the group. Indeed, over the post-war period as a whole, Ireland's absolute public debt has grown faster than almost any other country (increasing 17-fold, compared to an average 9-fold increase).

A major historical reason for issuing public debt was to finance war-time spending. Debt issued during World War II (but not World War I) is included in the data above. For some of the belligerents, debt issued during the war still made up a large proportion of debt outstanding in 1973. It is particularly notable in the US, the UK, and the Benelux, where it represented 49, 45 and 33 per cent respectively of the 1973 debt. On the other hand, Austria and Germany wiped their debt slate clean after the war. To avoid these distortions, debt issued during the war has been removed for all countries in the second column of Table A.1. The effect is dramatic as far as Ireland's comparative position is concerned. The Irish debt ratio now emerges clearly ahead of any of the countries shown.

The pattern of debt ratio across countries is quite closely related to the relative importance of central government spending in GNP. The correlation coefficient across the groups is 0.55 (statistically significant at the 5 per cent level). The ratio of debt to central government spending is shown in the third column of Table A.1. The more even spread of countries under this measure is apparent. (The coefficient of variation falls from 0.70 for the ratio of debt to GNP to 0.58 for the ratio to central government spending.)

However, the Irish government still appears to lead the field in reliance on debt to finance spending.

Table A.1: *Central government debt ratios*

	(1) *(D/Y)* *1969–74*	*(2)* *$(D/Y)_X$* *1969–74*	*(3)* *(D/G)* *1969–74*
Austria	11.4	11.4	40.4
Belgium	46.6	31.6	112.9
Denmark	6.3	4.2	16.1
Finland	8.3	6.2	26.3
France	10.0	8.2	40.6
Germany	12.3	12.3	54.9
Greece	21.4	21.4	93.9
Ireland	58.2	56.7	174.5
Italy	44.5	43.1	181.1
Netherlands	25.9	15.3	58.6
Norway	25.2	19.2	73.3
Portugal	17.7	16.2	101.9
Spain	11.5	10.6	82.2
Sweden	18.9	14.3	53.2
Switzerland	5.5	2.9	34.1
United Kingdom	60.5	31.3	90.5
Australia	39.5	30.8	76.0
Canada	44.6	28.4	156.9
Japan	5.2	5.0	39.7
New Zealand	46.5	37.7	145.6
United States	37.4	17.1	87.2
Average	26.5	20.2	82.9
Standard Deviation	18.2	14.2	48.4

Source: UN Statistical Yearbook; UN Public Debt (1914–1946); IMF Financial Statistics.

Note: Column (1) is the average ratio of Central Government debt to GNP between 1969 and 1974. Column (2) is column (1) after removal of debts raised during World War II. Column (3) is the ratio of debt (excluding World War II) to Central Government Spending.

Table A.2 examines certain aspects of public finance in a more restricted group of countries. The countries chosen all exhibit relatively high depen-

dence on public debt. They also share certain characteristics with Ireland: either in their stage of economic development or their degree of economic openness.

The proportion of public spending financed by borrowing in these countries between 1969 and 1974 confirms the impression given by earlier data on debt stocks. Table A.2 shows that the reliance on borrowing in all the countries selected was above the average for the extended group.

The discussion has linked public borrowing with capital spending. It is slightly surprising to find that these heavy borrowers do not reveal a significantly higher proportion of public spending devoted to capital purposes. However, problems of comparability of data are severe on this subject. Apart from Italy, all of them stayed within the balanced budget rule: borrowing was not used to finance current spending. Recent experience has sharply reversed this pattern in Ireland, as discussed in the text.

One of the difficulties associated with heavy reliance on debt finance is that interest service on the debt has to be found from taxation. Table A.2 also shows the ratio of debt interest to current revenue in the same group of countries. Not surprisingly the countries with large debt stocks lead the field. Ireland makes the highest call on current revenue.

Table A.2: *Ratio of government net borrowing and of government capital spending to total government spending. Ratio of public debt interest to government revenue (averages 1969 – 74)*

	Borrowing/spending %	*Capital spending/ spending* %	*Interest/revenue*
Belgium	11.8	16.8	10.9
Greece	9.8	21.8	11.0[2]
Ireland	19.6	22.1	11.5
Italy	30.0	21.1	6.3[1]
Netherlands	5.2	24.0	5.4
Norway	14.9	36.7	4.6
Portugal	9.3	21.0	4.1
Sweden	11.7	19.2	4.1
United Kingdom	3.9	17.7	7.5
Australia	5.3	30.0	6.5
Extended Group Average	3.6	19.3	5.8

1 on domestic debt only

2 includes public credit services and public debt charges

Source: UN Statistical Yearbook

High public borrowing will normally add to the balance of payments deficit in an open economy. None the less, Table A.3 shows that the relationship of the balance of international payments to gross fixed investment differs widely among these countries. Ireland displays far and away the highest reliance on foreign resources in this way. Italy and Greece, two similarly low income countries, also make substantial use of overseas resources to finance investment. This seems a sensible policy for countries in process of development, and it is perhaps surprising that Portugal eschews use of foreign resources. What is disconcerting in the Irish case is that relatively slow growth has accompanied reliance on capital inflow. Thus the average incremental capital output ratio (ICOR) shown in Table A.3 for the period 1970–74 is higher in Ireland than in any of the other countries of the group. The ICOR may be criticised as a poor guide to returns on investment. A high value for ICOR can also arise from worthwhile investment projects with a long gestation period or with returns in terms of "social benefits" rather than market receipts. In any event foreign exchange earnings depend on saleable output. Thus, the high value of the ICOR in Ireland gives further reason why the government should frame investment policy to forestall difficulties in meeting external debt commitments.

Table A.3: *Ratio of net foreign disinvestment (–) to gross fixed capital formation (1969/74) incremental capital output ratio (1970/1974)*

	Inflow/Investment	*ICOR*
Belgium	+11.6	2.3
Greece	–11.5	1.8
Ireland	–19.6	4.7
Italy	–11.5	1.3
Netherlands	+ 1.0	2.4
Norway	– 4.4	1.8
Portugal	+ 9.2	1.7
Sweden	– 1.0	1.8
United Kingdom	– 0.3	3.6
Australia	– 2.5	1.7

Source: UN National Account Statistics

Note: ICOR is defined as the ratio of the net change in capital stock (in real net investment) to the change in the volume of output during the year

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