

THE  
ECONOMIC RESEARCH INSTITUTE

Public Debt and Economic Development

by

EDWARD NEVIN

December, 1962

Paper No. 11.

73 LOWER BAGGOT STREET, DUBLIN 2.

THE ECONOMIC RESEARCH INSTITUTE  
EXECUTIVE BOARD 1961-62

- J. J. McELLIGOTT, M.A., LL.D.  
President of the Institute.
- G. O'BRIEN, D.LITT., LITT.D.  
Chairman of the Executive Board.
- C. S. ANDREWS, B.COMM., D.ECON.SC.,  
Chairman, Coras Iompair Éireann.
- J. P. BEDDY, M.COMM., D.ECON.SC.,  
Chairman and Managing Director, The Industrial Credit Company Ltd.
- R. D. C. BLACK, PH.D.  
Professor, Department of Economics, The Queen's University, Belfast.
- J. BUSTEED, M.COMM.,  
Professor, Department of Economics, University College, Cork.
- G. A. DUNCAN, S.F.T.C.D.,  
Professor of Political Economy, Trinity College, Dublin.
- R. C. GEARY, D.SC., D.ECON.SC.,  
Director of the Institute.
- W. A. HONOHAN, M.A., F.I.A.,  
Secretary, Department of Social Welfare.
- M. D. MCCARTHY, M.A., PH.D.,  
Director, Central Statistics Office.
- J. F. MEENAN, M.A., B.L.,  
Professor of Political Economy, University College, Dublin.
- C. K. MILL, B.A., D.SC.,  
Joint Managing Director, Arthur Guinness Son & Company (Dublin) Ltd.
- D. NEVIN,  
Research Officer, Irish Congress of Trade Unions.
- L. O'RUACHALLA, M.COMM.,  
Professor, Department of Economics, University College, Galway.
- J. C. TONGE,  
Federation of Irish Industries.
- T. WALSH, D.SC.,  
Director, An Foras Talúntais.
- T. K. WHITAKER, M.SC. (ECON.), D.ECON.SC.,  
Secretary, Department of Finance.
- GERALD WILSON,  
Governor, Bank of Ireland, Dublin.

# Public Debt and Economic Development

# Public Debt and Economic Development

by EDWARD NEVIN\*

## 1. The role of the public debt

Until the Keynesian revolution in economic thought, an increasing public debt was regarded by most commentators as one of the evils of war and as an indicator of fiscal and economic folly in times of peace. The Irish Banking Commission was therefore very much in the prevailing stream of international thought on this subject when it took a grave view in 1938 of the growth of Ireland's public debt since 1924; the magnitude of this may be seen from Table I. It led the Commission to the firm conclusion that

Our considered view is that no increase whatever beyond the existing volume of net dead-weight debt should be permitted, and that volume should be reduced from year to year at such rate as general financial circumstances permit.<sup>1</sup>

As may be seen from Table I, their hope that the public debt would decline was in vain. Certainly during the decade 1935-45 the expansion was relatively modest, and the debt in fact declined substantially in relation to the national income. Thereafter, however, the increase in the debt took on gigantic proportions: between 1945 and 1953 it nearly trebled, and between 1953 and 1961 it rose by a further 89 per cent. By 1961 it was more than twice as large in relation to the national income as it had been in 1935; the rise in the net annual debt charge (interest payments, management expenses and sinking funds) was a little less pronounced—from 2.0 per cent. of the national income in 1935 to 3.7 per cent. in 1961.<sup>2</sup>

Even from a rigorously orthodox point of view, however, the position is not as bad in reality as these figures might suggest. In the first place, a proportion of the gross debt (unfortunately of unknown magnitude) rests in the hands of the government itself or in those of agencies under its

\*The author of this paper is a Senior Research Officer of The Economic Research Institute. The paper has been accepted for publication by the Institute. The author is responsible for the contents of the paper including the views expressed therein.

<sup>1</sup>Reports of the Commission of Inquiry into Banking, Currency and Credit (P. 2628), Stationery Office, Dublin 1938, Chap. X, para. 489, pp. 305-6.

<sup>2</sup>In 1961-2 the net debt service showed an increase of 12 per cent.; the estimates for 1962-3 predict an increase of 13 per cent. in the gross debt charge.

control—as backing to the currency issue, for example—so that the net debt outstanding is smaller than the gross total. Secondly, a substantial growth has naturally occurred in the assets held by the government in the acquisition of which much of the debt was originally issued. At March 31st, 1961, for example (excluding double reckoning) these amounted to some £221 million.<sup>3</sup>

On the other hand, the debt total shown does not include contingent liabilities or guarantees; these excluding the capitalised value of housing loan subsidies—included in the debt totals shown in Table I—amounted to about £84 million in March 1961.<sup>4</sup>

Obviously these facts need to be borne in mind when the growth of the total gross debt is being considered. It is perhaps worth noting also that the marked increase in the gross debt during recent years has not been attended by the calamitous results sometimes believed to follow from government borrowing as a matter of necessity. As the data in the Appendix Table show, by European standards Ireland has not experienced an especially marked rise of prices, its money supply is not particularly large in relation to national income, and its official reserves abroad continue to be relatively high.

The present paper therefore seeks to summarise the trend of recent thinking in relation to the public debt, and especially the change in attitudes towards its functions in a growing economy. Traditional economic and fiscal theory tended to apply similar principles to both private and public indebtedness, but a deeper understanding of the role of government in economic development in more recent days has done much to change this. It is true that in the past few years a resurgence of neo-laissez-faire economic doctrines has had some effect, in this particular context as in others, of clouding the distinction between private and social good which analytical welfare economics had previously succeeded in establishing. Nevertheless there still remains wide acceptance of the proposition that to

<sup>3</sup>Statistical Abstract of Ireland, 1961 (Pr. 5984), Stationery Office, Dublin 1961, Table 258, p. 270.

<sup>4</sup>Ibid., Tables 258-9, pp. 270-1.

TABLE I: THE PUBLIC DEBT OF IRELAND, 1924-61

	Total gross debt outstanding £000	Annual debt charge (net) £000	National income £mn.	Total debt as % of national income	Net debt charge as % of	
					National income	Total debt
					1	2
1924	13,918	145	n.a.	n.a.	n.a.	1.0
1928	27,883	1,405	161.7	17.2	0.9	5.0
1935	57,393	3,035	149.2	38.4	2.0	5.3
1945	90,661	3,533	277.1	32.7	1.3	3.9
1953	258,057	8,800	439.6	58.7	2.0	3.4
1960	451,014	19,200	540.0	83.5	3.6	4.3
1961	487,952	21,471	582.0	83.8	3.7	4.4

Sources: Cols. 1-2: Data supplied by Department of Finance. The debt totals include the State liability element of Land Bonds and the capitalised value of housing loan subsidies but exclude accrued interest on Savings Certificates, and elements of double-counting. Debt charge totals refer to net charges provided in both Central Fund and Supply Services. The data refer to fiscal years ending on March 31st in the years succeeding those shown except for 1924 and 1928, which refer to fiscal years 1923/24 and 1927/28 respectively.

Col. 3: For 1925-35, *Reports of the Commission of Inquiry into Banking, Currency and Credits*, (P. 2628), Stationery Office, Dublin 1938, Ch. X, paras. 482-4 pp. 301-2 and Appx. 7, Table XXXV, p. 452. For 1945-61, *Statistical Abstract and Economic Statistics*, 1962.

treat private and public finance as closely analogous is at best dangerous and at worst positively disastrous.<sup>5</sup> The economic role of government cannot be defined in terms identical with those applicable to individual components of the economy. Similarly, the choice of government between current and capital finance for any given expenditure project cannot be governed solely by the criteria appropriate for a private enterprise; the public debt cannot validly be treated as no more than private debt writ large.<sup>6</sup>

Along with the awareness of the special position of government in the economy has developed a greater appreciation of the complex role played by the public debt in any financial system. It is not only the criteria by which expenditure is judged which may differ between government and the remainder of the economy; the place of the public debt itself in the asset-structure of a developing society is of crucial significance, quite apart from the effects of the expenditure which its issue may have permitted or prevented. The size, structure, terms and distribution of the debt itself all play a critical role in the operation of a country's financial structure—the currency, the banking system, savings and financial institutions, and indeed the budgetary policies of individual citizens.

<sup>5</sup>The error involved is, of course, the error of composition—i.e. the assumption that what is true of persons or enterprises acting individually is necessarily true of them acting collectively. Expositions of the point can be found in any elementary text; for reasons of space its acceptance has to be taken for granted here.

<sup>6</sup>It is perhaps necessary to emphasise that this paragraph contains no suggestion whatever that government expenditure is inherently or necessarily beneficial. Spending by governments may be wise or wasteful, just as spending by private persons or enterprises may be wise or wasteful. This paper is concerned, however, with the means of raising funds, not with the details of how those funds are spent. Obviously a discussion of the one cannot always avoid reference to the other, but nevertheless the principles of government expenditure are not the primary issue here.

Any assessment of the role of the public debt in economic development must therefore consider three separate, although obviously inter-related, aspects; first, its part in the financing of central government expenditures themselves; secondly, its role in the *indirect* financing of expenditures on the part of semi-government or private agencies; and, finally, the asset-effect of the public debt in the encouragement or control of the finance of projects in the private sector. The discussion which follows will consider each of these three aspects in turn in general terms; wherever possible, however, the general conclusions will be related to the particular case of Ireland.

## 2. The debt and government expenditure

In principle, the same basic considerations are applicable to the public debt in economies at all stages of economic growth. In the more highly developed economies, however, governments often find themselves concentrating more on the stability than on the expansion of the economy, whether that stability is in terms of a constant national product or of a rate of growth in the national product. Accordingly, in such economies the macro-economic role of public finance may tend to be the rather passive one of compensating for oscillations in the private sector; the government's own commitments are, for the large part, fairly regular current expenditures continuing from year to year. In such a situation the role of government—and therefore of the public debt—may often be a relatively marginal, or neutral, one.<sup>7</sup>

The position may be different, however, in a society which feels that its existing rate of economic

<sup>7</sup>This refers only to the macro-economic aspects of fiscal policy, of course. It is not to suggest for a moment that the functions of public finance are unimportant in, say, the welfare or public utility fields.

growth is substantially below what is both desirable and feasible, and where the acceleration of such growth takes precedence over the maintenance of stability in policy formulation. It seems reasonable that this category should be taken to include Ireland for present purposes. By definition, in this type of situation the private sector cannot be left as the sole determinant of the overall pace of economic activity, precisely because the existing rate of growth is inadequate by the standards which the society has set itself. Of necessity, therefore, the government has to take upon itself the responsibility for stimulating the rate of economic expansion. It may do this in one of two ways: by means involving no expenditure on its own part—controls, tariff legislation, exhortation, etc.—or by expenditures of a capital or current nature. With the former set of measures this essay will not be concerned, since they have little bearing on the question of public debt.<sup>8</sup> The latter is in any case likely to be of dominant importance in reality.

The range of expenditures for which government is responsible will naturally vary from country to country according to existing states of development, industrial patterns, political attitudes and so on. (The fact that many countries in Europe and America have been involved in two world wars during the present century, for example, is obviously relevant to their public debt totals.) Further, the comparative importance of government intervention in different economies is exceedingly difficult, if not impossible, to measure. If the relationship between government expenditure and national income is

<sup>8</sup>Although, as is argued below, it should not be inferred that the public debt is of importance only when its absolute volume is changed: adjustments in its structure of distribution may also have important effects.

taken as a very rough guide, however, the data presented in Table II may be of some interest. They indicate that by international standards the relative importance of central government expenditures is distinctly on the high side in Ireland. As a proportion of the national income they are larger in only two of the thirteen European countries listed—Austria and the United Kingdom—and New Zealand is the only one of the thirteen non-European countries shown in which the proportion exceeds the Irish figure.<sup>9</sup> In only two of the twenty-six countries—Belgium and the United Kingdom—is the public debt as large in relation to the national income as in Ireland, and the accumulation of war debt previously mentioned is obviously of relevance here. The actual content of such government expenditures is not material to the present discussion however.<sup>10</sup> The relevant point is that, whether they are current or capital in nature, they have to be financed in some way.

It is appropriate to examine first a situation in which it is considered that the resources necessary for a government's economic development expenditures must be found internally. This is, of course, the most important situation in practice. In the particular case of Ireland, for example, government external capital transactions during the years 1956-60 represented a net inflow of only some £11 million, at a time when its overall net capital

<sup>9</sup>Although impossible to verify statistically, it seems likely that the comparison would become even more striking if allowance could be made for the role of semi-government agencies in the economy.

<sup>10</sup>See footnote (6) page 2. There seems no reason, in a paper of this kind, why one should not assume that a society knows what it is doing when it chooses to spend some of its income collectively—i.e., in the form of government expenditure—rather than individually.

TABLE II: CENTRAL GOVERNMENT EXPENDITURE AND PUBLIC DEBT AS A PERCENTAGE OF NATIONAL INCOME, 1960

COUNTRY	Total central government expenditure	Gross public debt	COUNTRY	Total central government expenditure	Gross public debt
<i>1. Europe</i>			<i>2. Other</i>		
Austria	35·6	18·9	Australia	21·1	32·5
Belgium	29·4	88·6	*Brazil	13·1	7·6
Denmark	21·2	24·7	Canada	21·2	76·9
France	26·7	39·5	Ceylon	30·8	39·4
Germany (F.R.)	20·4	12·2	Costa Rica	16·2	21·0
Greece	23·0	15·5	Ghana	16·2	5·9
Ireland	33·9	80·5	Guatemala	16·3	11·6
Italy	27·5	37·3	*India	13·1	38·7
Netherlands	24·8	54·8	Japan	16·3	4·5
Norway	12·8	38·9	Mexico	8·7	4·8*
Sweden	28·5	36·4	New Zealand	37·3	75·9
Switzerland	8·3	18·9	Philippines	11·7	22·1
United Kingdom	38·4	136·9	United States	18·5	69·3

\*1959.

Source: *Statistical Yearbook 1961*, United Nations, New York 1962 (62-XVII-I), Table 163, pp. 486-7, and Table 175, pp. 537-593. The data for government expenditure refer in all cases to the period nearest to the calendar year 1960, except for Brazil and India, when they refer to 1959. The debt ratio shown for Ireland differs somewhat from that given in Table I page 2 because of small discrepancies between the U.N. totals for both public debt and national income and the official figures used for the purposes of Table I.

liabilities (excluding contingencies and guarantees) rose by £46 million.<sup>11</sup> To secure resources in any country, of course, government has to levy taxation and/or expand the public debt—including in this latter category an expansion of the currency or in bank borrowing.

The subject of taxation of various kinds is a very large and complex one, and little will be said on the matter here. It is widely believed that in almost every economy there are serious, if undefinable, practical limits to the extent to which taxation can be raised without injurious effects on its growth. Where unemployed or underemployed resources exist, indeed, it can be argued that the use of taxation to finance expenditure may result in the positive *wastage* of resources, partly through disincentive effects on the propensity to invest and partly through a “dampening” of the multiplier. In a fully-employed economy these latter effects may be in themselves desirable, and popular discussion tends to concentrate on the adverse effects of relatively high taxation on the incentive to work, on the one hand, and on the incentive to save, on the other.

The fact of the matter is, however, that the validity of this type of argument cannot be satisfactorily established, either empirically or on *a priori* grounds. The collection of factual data on the effects of taxation is immensely difficult and has seldom produced unambiguous findings. Analytically, it is obvious that taxation must have substitution effects and income effects which operate in opposite directions, the one discouraging work (or saving) because its net reward is lower, the other encouraging it because the taxpayer is poorer, an effect which is especially likely amongst primary producers. In any case it is manifestly unlikely that taxation will have the same effects whatever its form—whether proportional or poll taxes, and whether imposed on income, capital or expenditure.<sup>12</sup>

Nevertheless, so far as the direct role of the debt in financing expenditure from internal resources is concerned, the case in its favour is largely identified with the case against the use of taxation, debatable and ambiguous as the latter may be. The more serious that case is believed to be, the stronger the

case for the use of debt issues. (The question of the limits to the expansion of the public debt is discussed at a later stage.) It is important to remember, of course, that some of the disincentive effects attributed to taxation may well be associated with debt issues. Expansion of the money supply, for example, may significantly affect propensities to save or to work through its influence on the general price level; similarly, the same propensities will react to a rise in interest rates, or fall in capital values, resulting from an increase in the stock of long-term bonds in the market.

Given all this, it remains true to say that debt issues can be judged as an alternative to increased taxation. Unfortunately, as has just been emphasised, there is no general agreement as to what, if any, is the critical level beyond which taxation cannot rise without causing serious damage to an economy through its effects on incentives to work and save. It is widely believed in Ireland, for example, that the level of taxation in the country is too high, by some undefined standard. The comparison with other fairly small European countries shown in Table III would not appear to substantiate this view. The average level of *direct* taxation in Ireland is in fact unusually low, while the incidence of total central government taxation would certainly not seem to be particularly high by contemporary European standards.

TABLE III: THE INCIDENCE OF TAXATION, 1960

Country	Taxes on income and wealth as % of national income	Total Central Government tax revenue % of national income
Austria	10.4	29.5
Belgium	9.3	23.3
Denmark	8.9	21.9
Ireland	7.8	23.4
Netherlands	16.6	27.4
Sweden	11.3	21.7

Source: *Statistical Yearbook, 1961*, United Nations, New York 1962, Tables 163 and 175.

The comparison cannot begin to claim conclusiveness, however, even apart from all these analytical uncertainties attaching to the relationship between taxation and incentives. In the first place, it takes no account of local government taxation; nor can it measure the taxation implicit in a relatively high domestic price-level resulting from tariff protection. Both of these elements might reasonably be expected to be of greater significance in Ireland than in most other European countries. Secondly, a low average level of taxation—especially direct taxation—might still be consistent with high marginal rates of taxation on particular strategically-important sections of the community, if its incidence

<sup>11</sup>*Statistical Abstract of Ireland, 1961*, Table 252, p. 264, Table 258, p. 270. It is of course true that capital may be borrowed externally in an indirect way if internal debt issues, new or existing, are taken up by foreign investors. The balance of payments statistics do not enable an estimate to be made of external private transactions in the Irish public debt, but the statistics of applications for National Loans during 1957-61 given in the annual report of the Central Bank of Ireland for the year ending 31st March, 1962 (Statistical Appendix, Table XV.2, p. 65) indicate that applications for loan issues from outside the State amounted to some £9.6 million, or about 13 per cent. of all applications.

<sup>12</sup>These issues are thoroughly explored in A. R. Prest, *Public Finance in theory and practice*, Weidenfeld and Nicolson, London 1960, Chap. 4, pp. 70-90.

was not even through society. Thirdly, a rate of taxation which is tolerable for a country at one stage of economic development, or with an extensive system of (say) social services, may be unduly high for another country whose economic development or general circumstances are different or even for the same country at a lower or higher stage of development. The question of whether the level of taxation in a particular country, such as Ireland, is above or below the critical point at which further increases become inadvisable must therefore remain in the realm of opinion.

When *external* resources are sought for development the case for the public debt naturally becomes a positive one. Except in the virtually extinct situation of an imperial power with colonial territories which it is prepared to exploit—using this word in its dispassionate, technical sense—it is not possible for an economy to secure resources from overseas by taxation. If an external contribution to development is thought necessary or desirable, therefore, foreign debt becomes an important device of economic policy; the question of its possible limits is again left on one side for the moment.

All this goes to confirm the inadequacy of the view that an economy experiencing rapid growth in its public debt in time of peace is necessarily doomed to disaster. An individual whose indebtedness increases *pari passu* with his income may indeed often be headed for trouble. The position of a government in a growing economy is almost the reverse. Unlike an individual, a government must have regard to the *national* income, rather than its own, and whereas an individual's indebtedness can be offset against his income or wealth in some meaningful sense, the process becomes meaningless if translated to the public debt owned in the greater part by the community itself. Indeed an increasing public debt may be a *prerequisite* for the proper contribution of a government to the growth of its economy—evidence of a responsible, not irresponsible, administration.

### 3. Structure of the debt

In most pre-Keynesian fiscal analysis, the public debt was treated on much the same lines as private debt: except for short-term "floating debt" to even out annual revenue and expenditure flows, its issue would have been regarded as theoretically justifiable for productive capital purposes but not otherwise, while its optimum maturity would have been regarded as dependent on the period over which the net revenue from the underlying capital assets was expected to repay their cost. There is obviously an element of sound commonsense underlying this view; no prudent enterprise will

burden itself with a stream of future interest payments, and ultimate capital repayment, without a reasonable expectation that its income would be simultaneously increased in order to meet these commitments. Nevertheless, for two reasons, in a government of a developing economy this type of attitude would be manifestly inadequate.

In the first place, there is no real justification for the complete identification of public debt with long-term capital expenditure. It will be argued in a later section that the issue of debt may be required even though no necessity exists to finance any government expenditure on goods and services. This type of consideration apart, however, it is still incorrect to assume that the issue of debt is justified if the proceeds are used for capital expenditure but not otherwise. The task of government in economic development is to determine the volume of resources which, over a given period, are to be devoted to specified purposes. These may well be of a capital nature—roads, harbours, airports, schools and so on. Equally, they may be of a current nature—the provision of educational facilities, expenditure on agricultural extension services, the prevention and eradication of disease, etc. The development of an economy knows no rigid distinction between current and capital.<sup>13</sup>

It is scarcely necessary to add, of course, that the expenditure should be worthwhile and efficiently applied, but this dictum holds whether the expenditure itself, or its financing, is of a current or a capital nature. The question of what criteria are adopted for determining the merits of government expenditures is in itself a highly complex one.<sup>14</sup> Assuming for present purposes that the government has determined the shape and size of its development programme, the next task is to decide what volume of resources it will be necessary to divert from private use—capital as well as current—in order to fulfil this programme, having due regard to additional resources becoming available from higher productivity or the activation of under-utilised capacity in the economy, and having regard also to resources which it is possible and desirable to obtain from abroad.

The second consideration which necessitates a clear distinction between a private enterprise and government in the matter of debt policy is, of course, that for the former the debt charge represents a reduction in its disposable income whereas for the community as a whole the annual service of internal public debt represents a redistribution of the national

<sup>13</sup>This point is developed at some length by David Walker, *The allocation of public funds for social development*, The Economic Research Institute, Paper No. 8, Dublin, September 1962.

<sup>14</sup>See Prest, *op. cit.*, Ch. 3, pp. 60–64.



income, not a reduction of it.<sup>15</sup> In assessing the balance between current use of resources and future income flows, therefore, private enterprises and government are in fundamentally different positions.

This of course raises the issue of the "burden" of the public debt. Classical doctrines on this matter were undoubtedly confused and frequently erroneous.<sup>16</sup> It does not follow, however, that the concept of a burden of debt is entirely devoid of meaning. Recent analysis, in clarifying this issue, has tended to restore to the forefront, in particular, the old classical doctrine that if, and to the extent that, issues of public debt result in corresponding reductions in private capital formation then the flow of income to "future generations" will be smaller. The magnitude of this reduction will be measured by the difference between the annual yield on the expenditure financed through public borrowing and the yield which *would* have been obtained from the private investment which that borrowing displaced. It can be argued that this difference can validly be regarded as the "burden" of the public debt on future generations.<sup>17</sup>

This argument supposes that, in contrast to taxation, public borrowing will reduce private capital formation, rather than current consumption. Obviously this is by no means necessarily the case, but it is nevertheless plausible. In a fully-employed economy the government can secure additional resources only by withdrawing them from the private sector; it can be assumed likely that additional taxation will withdraw resources mainly from private consumption, whereas additional borrowing (by raising interest rates, etc.) will withdraw them mainly from private investment. Certainly, in reaching its decision regarding debt policy, a government must have regard to the effects which its borrowing may have on private investment, and consider how far such effects are acceptable.

How serious a consideration this would be in reality will naturally depend on the country concerned and on its current situation. It is difficult to conceive of it playing a significant role in contemporary Ireland, for example. In the first place, it is

<sup>15</sup>It should perhaps be stressed that this sentence is not to be taken as implying that because it is a mere transfer, the service of the public debt is unimportant. An annual debt charge carries implications for both the level of taxation and the distribution of income, both of which do matter.

<sup>16</sup>See R. A. Musgrave, *The Theory of Public Finance*, McGraw-Hill, New York, 1959, Ch. 23.

<sup>17</sup>This is an extremely truncated summary of a complex and not entirely uncontroversial analysis. The view which it seeks to summarise is most clearly set out by F. Modigliani, "Long-run implications of alternative fiscal policies and the burden of the National Debt," *Economic Journal*, Vol. LXXI, No. 284, December, 1961, pp. 730-755. See also J. M. Buchanan, *Public Principles of Public Debt*, Irwin, Homewood, Illinois, 1958 and "Easy budgets and tight money", *Lloyd's Bank Review*, No. 64, April, 1962, pp. 17-30.

not convincing to think of a country experiencing continuous and substantial emigration as fully-employed; additional public capital expenditure might well generate noticeable balance-of-payments effects, but there is no obvious reason for believing that it would necessarily cause a corresponding reduction in private capital formation. Similarly, the Irish monetary system is so open *vis-à-vis* the United Kingdom that the effects of public borrowing on internal monetary conditions would surely be unimportant in comparison with the influence of contemporaneous British monetary developments. Finally, the statistics scarcely support the view that aggregate capital funds in Ireland are so limited in supply that any additional public borrowing would reduce private borrowing to an equal extent. In 1951 and 1955, it is true, externally-held funds fell substantially in response to the severely adverse balance-of-payments situation of those years; between December, 1955 and March, 1962, however, official and banking external assets rose by some £30 million and, as the Appendix Table shows, by European standards Ireland is singularly comfortably-off in the matter of official external reserves. Such evidence as is available also suggests that the value of private external security holdings has risen in recent years; by contrast, new issues of marketable securities within Ireland by industry and commerce averaged the ludicrous total of £0.9 million a year from 1955-60.<sup>18</sup> These are not the symptoms of an economy experiencing, or bordering on, capital scarcity.

The effect of increased public debt cannot be assessed, however, only in terms of its impact on private capital formation through higher interest rates. An increase in the debt will raise the total of net assets in the hands of the private sector, and if it is assumed—as seems reasonable—that a rise in the ratio of assets to income will tend to reduce the propensity to save, the final effect on private investment will be a matter of great complexity. It is conceivable that a reduction of private investment caused by the initial debt issue may be offset in subsequent periods by the repercussions on aggregate demand of its asset-effect. Much will also depend on the *form* which the debt issue takes; if it comprises a mixture of money and (relatively) long-term securities it is not possible to say on *a priori* grounds whether the overall net effect on private capital formation will be positive or negative.<sup>19</sup>

Having considered these various factors in the

<sup>18</sup>For all these official data see *Statistical Abstract of Ireland, 1961*, Tables 253-4, p. 265. The report of the Central Bank of Ireland for the year ended 31st March, 1962, gives an average of £1.3 million for new issues by industry and commerce during 1951-61 (Statistical Appendix, Table XV, p. 64.)

<sup>19</sup>On all this see Musgrave, *op. cit.*, Ch. 22, pp. 550-3.

TABLE IV: PUBLIC DEBT AND THE INFLATIONARY GAP, 1954-61

	£ million							
	1954	1955	1956	1957	1958	1959	1960	1961
1. G.N.P. at current market prices	529	552	561	583	599	635	662	704
2. G.N.P. at previous year's prices	532	539	543	568	559	626	665	692
3. Inflationary gap(1-2)	-3	13	18	15	40	9	-3	12
4. Net government borrowing (a)	31	25	31	30	21	31	39	45

(a) Money raised by creation of debt less issues for debt redemption, to March 31st of year succeeding that shown.

Sources: Based on data in *Statistical Abstract of Ireland, 1961* (Pr. 5984), Stationery Office, Dublin 1961, Tables 245 and 255-6, pp. 261 and 266-7, *Report of the Central Bank of Ireland for the year ended 31st March 1962*, Statistical Appendix, Table XVI, p. 66 and *Economic Statistics* (Pr. 6509), Stationery Office, Dublin 1962, Appendix, Tables 12(a) and 12(b), p. 27.

situation, the authorities of any country must arrive at a final judgement concerning the manner in which the available resources are to be diverted from private use (assuming an initial state of full employment) in order to ensure that total demand—public and private—is neither too great nor too small in relation to the capacity of the economy. They must determine how much it is possible and desirable to extract by means of taxation, bearing in mind all they know about the prospective relation of current incomes and the flow of goods likely to be available to meet them, and the fact that increased borrowing now usually implies a claim on future tax revenue for its annual service and possibly repayment. Having decided the proper level of current taxation, the necessary volume of debt issue or retirement is determined as a residual. (This, of course, is in the context of financing government expenditure only; other factors, to be discussed below, will also enter into the formulation of debt policy as a whole.)

It follows from all this that there need be no correlation between debt issue over a particular period and government capital expenditure over the same period. It may be that the proceeds of borrowing are used to finance current expenditure if a relatively low level of taxation is considered appropriate; conversely, taxes on current income may be used to finance capital formation or debt retirement if a high rate of taxation is needed. In general, there is no way in which the proceeds of debt issue can be linked with any particular expenditure. The spending needs of the government, in other words, cannot be the sole determinant of the volume of the public debt; rather it is the level of taxation necessary to maintain equilibrium or achieve a desired rate of growth in the economy, the level of government expenditure naturally being an important element in the existing and prospective state of that economy.

How far has recent public debt policy in Ireland been linked with stability considerations only? A firm answer to this question is scarcely possible

because of the complexity of the factors entering into debt operations, but the data shown in Table IV may nevertheless be of some interest in this context. The measurement of the "inflationary gap" there attempted is inevitably a crude one but it probably gives some impression of the orders of magnitude involved. If so, it would be difficult to argue that there has been any necessary connection in recent years between public debt policy and the overall pressure on resources of the kind indicated in the previous paragraph. Debt issues were positive in all the eight years shown, despite the considerable variation in the pressure of demand on available resources. Indeed, the relative constancy of central government borrowing during these years suggests that the predominant influences on debt operations have not been what might be called Keynesian macro-economic considerations. The analysis cannot be conclusive. A good deal turns, for example, on the *distribution* of the debt, as well as its volume; an increase in the total outstanding could conceivably be associated with a *decline* in the holdings of the private sector. There appear to be no detailed data available on the distribution of the Irish public debt, however, so that the aggregate figures shown in Table IV cannot be qualified by distributive criteria.

A second factor separating the structure of the public debt from the pattern of government expenditure is the special responsibility of government in relation to the asset needs of the economy. A private enterprise is normally governed in its borrowing policy by the nature of its expenditure plans; ordinary considerations of cost-minimisation usually prevent it from issuing long-term debt to finance essentially short-term expenditures, while common prudence usually prevents it from using short-term borrowings to finance long-run capital formation. For at least four reasons, however, governments are not in a comparable position.

First, governments are by definition obliged to consider the indirect social costs and benefits of their actions as well as their direct monetary

consequences. Secondly, their debt, unlike that of private enterprises, is widely utilised in the modern economy and, indeed, usually forms the foundation of the asset-structure of the currency, banking and financial systems. Changes in its size and structure, therefore, have widespread consequences which do not arise in the case of private enterprises.

Thirdly, the scale on which governments operate, and the scope of their policy horizons, are so much greater than those of a private enterprise as to introduce a difference of kind rather than of degree. In particular, the sources from which governments draw short-term funds are so dispersed that withdrawals in one direction are frequently offset by deposits in another; a collection of nominally short-term loans can thus become a semi-permanent source of finance. Irish Exchequer Bills, for example, are nominally very short-term liabilities, but the volume outstanding has remained well over £12 million between March 1957 and March 1962. Conversely, the market in government debt is often so extensive that the authorities may be able to operate in it and secure the redemption of long-term debt long before nominal maturity if they so desire.

Finally, a government, unlike any other agency in the economy, has not only mandatory taxing powers but also ultimate control over the monetary unit and the currency supply, the very basis of the entire credit system. (The special relationship of the Irish currency to the British pound sterling renders this generalisation subject to perhaps more qualification than would be the case with most other currencies, but its basic validity remains nevertheless.) Unlike private agencies, therefore, it need never find itself unable to service or redeem its own debt in the legally-enforceable currency of the country. This is not to say that this power is never subject to serious practical limitations, or that dangers may not be associated with either increases of taxation or expansion of the money supply to meet debt obligations. The power is there, however, giving the government both opportunities and responsibilities not present for any other agency in the economic system.

For all these reasons, then, the assumption of a rigid connecting-link between type of borrowing and use of funds is inappropriate in the context of the public debt. Further, the considerations set out in the preceding paragraphs indicate the alternative basis on which public debt policy can be formulated—namely, the requirements of the asset-structure of the economy as a whole, rather than the simple relationship between expenditure and tax revenues.

In its narrowest sense such a policy could be interpreted to mean “tailoring” the debt, to use the American expression, so as to minimise its cost. By issuing the type of securities demanded by

particular groups, that is to say, the rate of interest could be held at the lowest feasible level, and certainly at a lower level than would be needed if, say, long-term securities were issued when investible funds were held predominantly by investors seeking short-term outlets. This interpretation of the concept would be unduly narrow, however, in any economy where the minimisation of debt costs is regarded as an inadequate criterion for government policy. In such a context the word “requirements” cannot necessarily be interpreted to mean “desires”; the requirements of a particular sector, as conceived by the government, may conflict with—or even be opposed to—the desires of that sector as conceived by itself.

An example may make this clear. Suppose that an economy is growing less rapidly than physically possible because of a chronic unemployment or under-employment of some of its resources. In such a situation a government might choose to finance some of its current expenditure not by means of taxation (which would reduce aggregate demand), but by the expansion of the very short-term end of the public debt—that is, the currency supply or indebtedness to the central bank. This could have the effect of reducing interest rates, expanding the volume of commercial bank credit, and generating additional demand to bring idle resources into activity.<sup>20</sup> Here the policy of shaping debt policy to meet the requirements of the economy—in the widest sense of the word—would involve little or no debt cost.

Suppose, however, that the opposite situation prevailed—i.e., that the pressure of demand upon available resources was excessive, with a consequent threat to the stability of the economy and the balance of payments. If in such a situation debt policy is to be used to support and reinforce tax policy, it would involve the aggressive replacement of short-term debt by long-term securities, even though investors' preferences might well lie in the opposite direction. The aim of such a policy would be to raise interest rates and reduce the liquidity of the private sector; this would be the requirement of the economy as a whole as seen by the monetary authorities. The policy would probably not coincide with the desires of the investing world, and it would certainly not minimise the interest charges on the public debt.

It may be of some relevance to examine recent debt policy in Ireland in the light of this consideration. The statistics are shown in Table V. Since the period as a whole was an inflationary one,

<sup>20</sup>This would be the happy theoretical sequence. In reality, immobility of the factors concerned might result in a failure of output to expand, so that a mere inflation of the price level results; again, the balance of payments might worsen intolerably. But all this, of course, is another story.

TABLE V: THE STRUCTURE OF THE IRISH GROSS PUBLIC DEBT, 1955-62\*

	£ million					
	Year ended March 31st			Change		
	1955	1958	1962	1955/58	1958/62	1955/62
1. Floating debt	84.6	109.9	151.1	+25.3	+41.2	+66.5
2. Marketable securities:						
(a) Repayable in under 5 years	7.6	6.9	5.9	-0.7	-1.0	-1.7
(b) Repayable in 5-15 years	61.4	94.7	96.6	+33.3	+1.9	+35.2
(c) Repayable in over 15 years	62.1	59.1	112.0	-3.0	+52.9	+49.9
TOTAL	215.6	270.7	365.6	+55.1	+94.9	+150.0
3. "Small" savings	18.3	30.0	46.2	+11.7	+16.2	+27.9
4. Other internal debt	30.5	36.7	49.7	+6.2	+13.0	+19.2
TOTAL INTERNAL DEBT	264.4	337.4	461.5	+73.0	+124.1	+197.1
5. U.S. Debt	40.6	40.2	38.4	-0.4	-1.8	-2.2
TOTAL GROSS DEBT	305.0	377.6	499.9	+72.6	+122.3	+194.9

\*Excludes capitalised liabilities in respect of subsidies on housing and sanitary services loans (£42 million in 1962).

Source: *Statistical Abstract of Ireland, 1960* (Pr. 5492), Table 251, p. 268 and *Statistical Abstract of Ireland 1961* (Pr. 5984), Table 258, p. 270, and *Tables in connection with the Financial Statement, 1962* (Pr. 6493), Table XI, p. 14.

equilibrium policy as such<sup>21</sup> would have implied a lengthening of the debt structure in an effort to reduce the liquidity of the economy. It will be seen that the actual drift of the debt structure during 1955/58 was in the opposite direction, partly, of course, through the re-classification of outstanding debt with the passage of time. Of the increase of about £73 million in the gross debt between March 1955 and March 1958, floating debt and relatively liquid "small savings" securities together accounted for £37 million. The longest-term marketable security issue actually fell by £3 million. During 1958/61, however, the change tended to be in the opposite direction, since roughly a half of the increase in the total debt occurred in marketable securities having a maturity of over 15 years. Over the period as a whole, however, the liquidity of the debt structure has been somewhat increased rather than diminished.

There is another sense in which the policy of "tailoring" the debt differs from one of simply minimising debt charges. Different groups of investors seek different types of security. Funds may be available for short-term investment, for example, which would in no circumstances be used to purchase long-term assets—even if an active market existed in them, which is not always the case. If the appropriate type of security is not forthcoming, such funds will lie sterile, or perhaps be remitted to foreign money markets; in either case they are lost to the internal development of

<sup>21</sup>The proviso is important, since *growth* policy as such might have implied an opposite course, and policy as a whole could involve a delicate balancing of advantages. It is also worth recalling the obvious fact that the type of debt which a government can sell is not entirely within its own control.

the economy. In these circumstances a sound public debt policy would result in an expansion of the money supply or the issue of short term securities irrespective of the extent or nature of the government's financing problem at that particular moment. In this way a circulating flow of short-term funds may be mobilised for investment; the interest cost may be lower than would result from conventional debt policy.

In other cases, however, the opposite will be true. Some groups of investors—insurance companies and pension funds are important examples—need long-term securities for their proper operation. If such securities are not forthcoming, the flow of funds into internal development may again be hampered. In this case, debt policy may involve the issue of long-term securities against short-run expenditures; the interest cost of the debt will be raised.

In its broadest sense, then, the shaping of debt policy on the basis of the asset-requirements of the economy as a whole, rather than on the basis of the use made of the proceeds, may or may not result in the reduction of the debt cost as commonly understood. This must be a relatively minor consideration, however; of infinitely greater importance is the fact that the public debt can be employed positively in the development of the economy, both in the sense of contributing towards equilibrium in the balance of real resources and in the sense of assisting the financial flows of the economy to attain the closest possible integration with its physical development needs.

It must be recognised that a debt policy resting on this basis is not without its risks. A well-tailored debt facilitates the movement of funds into it;

it must therefore *ipso facto* facilitate the movement of funds out of it, a process which might well occur at an awkward moment from the government's point of view. This is merely to say, however, that a policy for growth will always involve risks; it is always safer—at least apparently—to stand still. One reaction is therefore that of negative caution—to do nothing which is not safe. The alternative is to become reconciled to the fact that if policy is to be positive and energetic it may well have to be energetic in both directions. That a movement once started may subsequently need to be checked, or even reversed, is not a self-evident justification for preferring not to embark on the movement at all.<sup>22</sup>

#### 4. Special selling features

At this point it may be worthwhile to mention briefly some of the special conditions which may be attached to public debt issues in order to attract and retain both domestic and external investors. Tailoring the debt, in the ordinary sense of maturity dates and interest rates, may not in itself be sufficient if the aim is to attract not merely funds already seeking investment—whose owners are often already favourably disposed towards government securities—but also funds which would otherwise find outlets either internally in directions which are undesirable from the point of view of sound economic development, or in external investments or even in “conspicuous consumption” expenditure.<sup>23</sup> In economies with sophisticated structures of financial institutions this problem will usually be a marginal one; in others, however, it can attain serious dimensions and the public debt can have a major role to play in connection with it.

A long-established device in this context is the concession of tax remission on interest payments. For external lenders, indeed, it is a virtually indispensable feature; justification in this case is not difficult, however, since the beneficiary, being a citizen of another country, will normally be taxed on the interest payments by his own fiscal authorities. Justification is also not difficult in the case of small investors; frequently their profound reluctance to come into contact with the machinery of tax collection—and the relatively trivial revenues which can

<sup>22</sup>Face the Radcliffe Committee which appears to have argued that measures which would remedy a slump should not be adopted if they would complicate the problem of controlling a future boom—*Report of the Committee on the working of the monetary system*, Cmd. 827, H.M.S.O. London, 1959, para. 490, p. 175.

<sup>23</sup>Two examples are hoards of “precious” metals (see *Measures for the economic development of under-developed countries*, United Nations, New York, 1951, Chap. VI) and Professor Arthur Lewis' pyramids (W. A. Lewis, *The theory of economic growth*, Allen & Unwin, London, 1955, Chap. V, p. 236).

be collected from them at high administrative cost—make a *de jure* recognition of a *de facto* situation of tax exemption a worthwhile psychological weapon having little real cost. It is difficult to extend the justification much beyond such special cases, however. The practice of tax exemption to special groups of *rentiers* is not easily reconciled with social justice; further, it is in effect a concealed subsidy on official borrowing rates which may distort the pattern of the economy's capital charges. The payment of a sufficiently high interest rate could presumably exert an equal attraction for the investor and would have the important advantage of accurately reflecting the true cost of capital to the borrower.

Much the same is true of the technique of offering issues at a price below their redemption value, which is used extensively in many countries and which involves a tax-free capital gain. Like income-tax-exemption, it amounts to a concealed subsidy, having the effect of holding the apparent interest cost below its true level, and it confers a fiscal privilege on a particular section of society.

A third possibility which has been much discussed in recent years is the linking of the interest payments on, and maturity value of, public debt issues to the general price-level (or to gold) so as to preserve their real value. Inflation is undoubtedly a major enemy of the acceptability of the public debt as an investment, and a psychological situation may be reached in which debt issues to the general public become impossible without some such concession.<sup>24</sup> In anything short of so desperate a situation, however, there is general agreement that this is a device to be avoided. It is one more weak link in the chain of forces restraining inflation, an animal never far removed in a growing economy; it is one more claim on revenue which must increase as prices rise but which is unlikely in practice to diminish if prices fall; above all, it is a clear admission of the expectation of defeat by the one agency in the economy which has both the power and the responsibility for combating inflation.

A much stronger argument can be made out, however, for linking public debt issue terms with the growth of productivity—for example, real output per head. The problem of establishing acceptable statistical indicators is not an easy one, but the advantages of the technique could be substantial. An argument can be made out on grounds of social justice for extending to a government's creditors some guarantee of a share in the improved standard

<sup>24</sup>France may have provided an example of this in recent years: see H. Brochier, “L'Evolution de la Dette Publique en France depuis 1945”, *Public Finance*, Vol. XVI, No. 1, 1961, pp. 50–77. The figures quoted earlier of external applications for National Loans indicate that there is no danger of this situation developing in Ireland.

of living of society as whole.<sup>25</sup> More prosaically, in a growing economy the prudent investor will seek "growth" assets, and if the public debt cannot offer growth, he may well look elsewhere; however high the rate offered *currently* by public debt issues, he may still prefer an asset whose yield can grow *pari passu* with the national output as a whole. Finally, the technique represents an announcement by the authorities of the probability, not of inflation, but of continued economic growth; the psychological effect of this would be of value in promoting that growth itself.

Fourthly, the offer of attractive redemption terms, especially to the small investor, may have considerable practical effect. Just as the erosion of values through inflation can weaken the attraction of government securities for investors—as opposed to speculative operators having little interest in long-term holding—so the same effect can result from an instability of market values which robs the investor of the assurance that his resources are substantially recoverable in an emergency. It is not difficult to conceive of a system whereby, for example, specified amounts of a security could be submitted for redemption by the authorities within a guaranteed, but progressively widening, range of prices regardless of current market quotations. This would give a valuable concession to the small investor without simultaneously opening the door to abuse by the professional and institutional investor. Whatever the technique employed, the assurance of liquidity to the genuine investor is important; experience shows that such an assurance makes the public debt not merely more attractive to buy but also more attractive to hold. In Ireland this principle is already embodied in the Savings Certificate. There may be scope for a more extensive and, so to speak, more aggressive application of this type of provision; it is relevant to observe that over the six years 1956–61 net sales of Savings Certificates amounted to only £8.5 million when total personal savings amounted to well over £200 million.<sup>26</sup>

Finally the introduction of a lottery element may have its part to play in the mobilisation of funds

<sup>25</sup>This is debatable, of course. If regard is had to the strict Thomistic doctrine on interest—basically indistinguishable, as Keynes himself once wrote, from the Keynesian liquidity-preference theory—interest is related to the sacrifice of convenience, etc.—*lucrum cessans* and *damnum emergens* in the scholastic terminology—by the lender, not the use to which borrowed funds are actually put. The crucial question is therefore whether the *lucrum cessans* refers only to the situation prevailing at the time of the loan or whether it can validly be extended to cover the changing expectations which (as events prove) rising productivity would have generated through the life of the loan.

<sup>26</sup>*Statistical Abstract of Ireland, 1961*, Table 247, p. 261 and Tables 255–6, pp. 266–7, *Financial Statement, 1962*, Table XI and *Economic Statistics, 1962*, Appendix Table 13. Sales of Savings Certificates relate to fiscal years commencing in the years mentioned.

through the public debt. For investment, as contrasted with the outright purchase of an ordinary private or state lottery, it is necessary that the prizes should be paid from the fund normally set aside to meet interest payments. This inevitably means that they will be of a smaller amount than those paid by the usual type of lottery in which, once finished, the document purchased by the individual ceases to have value. The experience of the United Kingdom suggests that this may be an almost fatal defect; there are some signs that this may also prove to be the case in Ireland, since the net sales of Prize Bonds have fallen from £6.8 million in 1957–58 to £2.2 million in 1960–61 and £2.4 million in 1961–62.<sup>27</sup> In a different type of society, however, the device might have a more substantial role to play.

There are many ways, therefore—and the foregoing paragraphs are in no sense exhaustive—in which the public debt can be employed as a policy instrument appealing to and influencing many sections of the community. The traditional concept of the debt as a private pasture confined to banks and obscure trustees has little relationship to its many-sided and complex role in the modern economy, a role as all-pervading as that of government itself.

## 5. The finance of government agencies

The foregoing has been concerned only with the debt in relation to its most direct and obvious role—the channelling of purchasing power to government itself, either for the finance of its own expenditure or for the maintenance of a proper balance between aggregate demand and aggregate supply over the economy as a whole.

Important though this function is, the role of the public debt cannot be regarded as ending there, especially in the context of a growing economy. Economic growth may involve substantial outlays by the central government itself even in relatively *laissez-faire* type societies; during 1954–60, for example, "general government" and "government enterprises" accounted for nearly 25 per cent. of total domestic fixed capital formation in Ireland.<sup>28</sup> More often, however, the development and promotion of productive enterprises will rest on other agencies—public boards subject to varying degrees of official control or privately-owned enterprises of all types. The growth of such enterprises, whether

<sup>27</sup>*Financial Statement, 1962*, Table XI, *Finance Accounts* for the year ending March 31st, 1961, (Pr. 6107) and *Statistical Abstract of Ireland, 1960*. Net sales were also £2.2 million in 1958–59, but this was due to a fall in issues which was to be expected after the large first-blush issue of £7.3 million (gross) in 1957–58. The significant fact is that while sales have fallen, repayments have steadily risen.

<sup>28</sup>*Yearbook of National Accounts Statistics, 1961*. (62. xvii.2), United Nations, New York 1962, Table 5, p. 134. The text assumes that Ireland can be termed a *laissez-faire* society. As was shown earlier, on some definitions this is debatable, to say the least.

semi-public or wholly private, will naturally depend on many factors, but the availability of adequate finance on reasonable terms will be not the least among them.

If such finance is forthcoming, no special problem exists and development will proceed if the other necessary components are available. In many economies, however, it is not forthcoming in sufficient magnitude, even—paradoxically enough—in countries where capital funds are, in aggregate, adequate to meet existing demands. Economic development can be held back precisely because the ordinary mechanism of profit-attraction is not strong enough to overcome the prevailing resistances to investment in particular sectors. Profit-outcomes may be necessarily especially uncertain, or may have to be accepted on an unusually long-run basis; the liquidity of investments in local enterprises may be relatively low; conventional types of collateral security may not be available; enterprises may tend to be small-scale. Some or all of these factors are obviously of significant importance in Ireland, for example; an analysis of death-duty statistics suggests that, of total private holdings of corporate securities in Ireland amounting in 1953-55 to some £222 million, no less than £100 million, or about 45 per cent., were held in foreign enterprises.<sup>29</sup>

In view of this, it may prove necessary in some cases for government itself to shoulder some of the risks, and absorb some of the illiquidity, involved in investment. It can do this by allowing the public debt to be used as a means of reconciling the need for liquidity on the part of the borrower, on the one hand, and the need for long-term capital by investing enterprises, on the other. Only government may be able to under-write, on a collective basis, the risks inherent in economic development which private lenders cannot be expected to bear in connection with individual enterprises. (For a government concerned with the long-run interests of the economy as a whole, indeed, many of the risks associated with particular enterprises can safely and reasonably be expected to cancel out.) It is well-known, of course, that the use of government funds in productive and trading enterprises is not without its own dangers; experience suggests that the availability of public capital often results in a softening of attitudes towards realistic pricing or the continuous pursuit of efficiency.<sup>30</sup> The possible abuse of an instrument

<sup>29</sup>See my study *The ownership of personal property in Ireland*, The Economic Research Institute, Paper No. 1, October, 1961, Appendix II, Table E, p. 22. The same data actually suggest that for later years the value of privately held foreign corporate stocks is substantially in excess of that of holdings of Irish corporate stocks.

<sup>30</sup>One is reminded of the Italian proverb—Public funds are like holy water: everyone helps himself freely.

is hardly an adequate justification, however, for the neglect of the instrument itself.

It follows, then, in principle at any rate, that the public debt has an important function as a channel for development funds; by means of it, risks can be reduced and liquidity increased. The funds may be transmitted *via* the debt directly to major public projects or industries. For private enterprises it is more probable (and, for the reason mentioned at the end of the previous paragraph, frequently more advisable) that they will be transmitted indirectly through semi-private institutions engaged in development finance—Agricultural Credit Corporations, industrial promotion bodies, agencies for providing credit to small-scale enterprises, and so on. Ireland provides an unusually clear example of the public debt, being used in this way. On March 31st 1962 the assets which could be offset against the Irish public debt included £191 million Exchequer advances to various public agencies—the most important of which was local government—and a further £41 million held in the form of shares of various state-sponsored development agencies.<sup>31</sup>

One important aspect of this function of the debt is that it may help to overcome a familiar problem in many economies—the presence of a demand for capital funds by industrial and agricultural enterprises and a concentration of the supply of investible funds amongst institutions such as banks, insurance companies or pension funds which do not regard long-term investment in such enterprises as part of their legitimate business. The role of the public debt in all these respects is thus in a sense passive and indirect; nevertheless, it can be of crucial importance.

## 6. The creation of capital markets

There is one other function of the public debt in the finance of development which deserves brief mention. It has been argued that the debt may channel funds directly from the private sector to the government, and that it may also channel funds from the private sector into public or semi-public agencies—and thus back again into other parts of the private sector where the demand for capital exists. There is a further possibility, however: the debt may be used to facilitate the flow of funds *within* the private sector so as to promote development, and without the intervention of official agencies in the use of funds.

It is generally agreed that the existence of strong and active markets in both short-term and long-term capital is very much in the interests of development, since such markets encourage the movement of funds from the various points at which they

<sup>31</sup>*Financial Statement, 1962*, Table XI, p. 14.

emerge to the sectors where they can be best utilised. It is often the case, however, that such markets are imperfect in the technical sense or limited in their coverage; the result may be that funds urgently needed for internal development may be lost overseas or absorbed into less urgent consumption for lack of suitable security outlets or marketing facilities. Although Ireland possesses long-established and reputable stock exchanges, for example, these considerations are by no means irrelevant for it. Reference was made earlier to the extremely small volume of private new issues which occur in the domestic capital market, and it is known that the market in existing securities is a narrow and far from highly active one.

What then is the role of the public debt in the development or improvement of such markets? In their earlier stages it may well be a critical one. The habit of investment in general, and the use of a securities market in particular, will become widespread only if a regular supply of suitable securities is available to the investing public and if a reasonable degree of marketability is attached to them. The former requirement links up with what was said earlier in connection with the tailoring of the debt. But rather more may be involved, since investors will develop the habit of portfolio investment only if the right *quantity*, as well as type, of securities are available. The use of short-term government debt as a regular outlet for funds, for example, will not become established if the volume available fluctuates violently through the year; comparable considerations apply to medium and long-term investment. Another factor is thus added to the already complex problem of determining the optimum volume of debt. Issues or retirements may be required not only by the state of government finances or the balance of aggregate demand in the economy but also by the needs of a stable financial market.

The maintenance of marketability is equally important. Investors acquire the habit of portfolio investment only if securities are reasonably liquid as well as regularly available. So far as short-term debt is concerned, this may imply a willingness on the part of the authorities to provide generous re-discount facilities, either directly or through the banking system.<sup>32</sup> For medium and long-term debt it implies an acceptance by the authorities of the need to be constantly operating in the market for their own securities with a view to assisting the maintenance of marketability at a level of prices which does not oscillate so violently as to make portfolio investment a dangerous business for the ordinary investor. The horizons of the government

<sup>32</sup>For examples, see P. G. Foussek, *Foreign central banking: the instruments on monetary policy*, Federal Reserve Bank of New York, New York, 1957, Chap. IV.

in formulating overall debt policy are accordingly widened yet again.

Where security markets are well established, and the habit of portfolio investment is common, however, one would expect the relative importance of the public debt in this context to decline. There will always be a need for a fairly stable market in government securities, but as security markets become familiar one would expect them to widen. If the buying and selling of government debt is commonplace, similar activity is likely to develop in the debt of semi-public bodies, and, in time, in securities issued by private corporate borrowers. A stable government bond market, for example, often provides a firm basis for the portfolios of banks, insurance companies, investment trusts, and so on, from which they can venture into more speculative investment. Thus a regular efficient channel is established between various groups of investors within the economy and all enterprises, public and private, seeking new capital.

## 7. The limits of the public debt

The ends which the public debt may be asked to serve are therefore several. In a developing economy the authorities may consequently find themselves faced with the question of how far they may safely proceed with an expansion of the debt in order to attain those ends. What limits—other than those which may be imposed by statute—exist to such an expansion?

First, there may be, psychologically speaking, a maximum beyond which public opinion is not prepared to see the debt, or particular elements of it, go; expansion past this point may lead to a breakdown of confidence in the stability of the financial system in general and of the currency in particular, with all the consequences which could follow from this. The precise position of this barrier will be to some extent variable through measures to increase the public understanding of the role and significance of the debt in the modern economy; it will doubtless vary between internal and external investors; it will vary over time. Reference was made earlier to the strong feelings expressed by the Banking Commission in connection with the size of the Irish public debt then outstanding. The fact that no comparable fears are expressed nowadays, despite the enormous expansion which has occurred in the debt, is a demonstration of how public opinion can evolve in such matters over a comparatively short period. Nevertheless, at any given moment it may form an ultimate barrier which the authorities have to accept. Fortunately it is unlikely that many governments will need to operate close to that barrier in the ordinary course of economic policy.

Secondly, and probably of more relevance, there



may be a less absolute and clearly-defined limit beyond which the debt can be placed without sharply increasing difficulties of a monetary kind. The operative factors here are not the dangers of a crisis of confidence but the less explosive ones of, on the one hand, a relatively low propensity to save, or, on the other hand, a relatively low preference for government debt as opposed to other available investment outlets. The former would imply that at any moment of time the sale of assets to the public could take place only with increasing difficulty—i.e. sharply rising interest rates—as their volume increased. The magnitude of this problem will of course vary from country to country, but the available evidence does not suggest that government need labour under any very marked disadvantage in Ireland in the matter of the general propensity to save. National income statistics suggest that over the years 1954-60 the propensity to save of private households was 6.5 per cent. in Ireland, which, while smaller than the comparable ratio in Denmark, the Netherlands or Belgium, (7.6, 10.3 and 11.7 per cent. respectively) was higher than in other European countries such as Sweden (6.0 per cent.) or the United Kingdom (3.3 per cent.).<sup>33</sup>

On the other hand, there may be a lower inclination to hold government securities in Ireland than elsewhere; estate-duty statistics indicate that not only are securities generally less favoured as a personal asset in Ireland than elsewhere—in 1953-55 they amounted to 52 per cent. of gross personalty in Ireland compared with 59 per cent. in Britain and 62 per cent. in the Six Counties—but government securities are relatively less popular, amounting in 1953-55 to only 14 per cent. of total security holdings in Ireland compared with 24 per cent. in Britain and 36 per cent. in the Six Counties.<sup>34</sup>

The potential scope for government action to shift the limits imposed by these factors is obviously much greater than when dealing with the state of confidence. Measures at government's disposal will include higher interest rates, better tailoring of issues, more generous re-discount or redemption facilities or even—in the case of domestic institutional investors—moral or legislative pressure. How far such measures can or should be carried, of course, is a matter which only the government concerned in each case can judge in the light of the situation in which it finds itself.

Finally there is the question of the increasing "burden" of the debt. Considering first internally-issued debt, reference was made earlier to the fact

<sup>33</sup>Yearbook of National Accounts Statistics, 1961, United Nations.

<sup>34</sup>See my study *The ownership of personal property in Ireland*, Table IV, p. 13. This probably explains the rather high yield (by European standards) on Irish government bonds—see Appendix Table, col. 5.

that the concept of the burden of the public debt is an extremely vague, not to say illusory, one. Nevertheless, a rising debt means, other things being equal, an increasing debt charge and a level of taxation which rises accordingly. Conceivably, the public debt could reach a level at which the taxation necessary for its servicing represented 100 per cent. of the national income. Without prejudging the question of the precise effects of high rates of taxation—by no means a simple issue, as was emphasised earlier—it can be assumed that such a state of affairs would give rise to some concern.

How serious a problem is this? If one postulates a constantly-increasing debt within a static national income it could obviously become very serious indeed. In a celebrated article, Domar<sup>35</sup> has demonstrated that from an initial situation in which the public debt amounted to \$800 billion and the national income to \$130 billion, the service charges on a debt rising by 6 per cent. per annum would represent 20 per cent. of the national income after 175 years and 25 per cent. after 250 years. Such a situation would have no relevance in a discussion of debt policy in a growing economy, however, since the whole purpose of the increased debt is to *prevent* a constancy in the national income. With any reasonable rate of growth in the economy, the burden of even a steadily increasing debt can become a minor consideration. Domar has shown that in an economy with a steadily expanding income, the charge on the debt rising at 6 per cent. annually—mentioned in the example above—would ultimately settle down to a constant and relatively small proportion of income.

It may be of some interest to examine this latter point in more detail. During 1959-61, the annual debt charge in Ireland rose by an average of 9.6 per cent. and national income by an average of 6.3 per cent.<sup>36</sup> In Table VI the net debt charge of 1960 is

TABLE VI: DEBT CHARGE AND NATIONAL INCOME, IRELAND, 1960-2000

	Projected net debt charge £m.	Ratio to national income assuming annual growth rates of		
		4%	6%	8%
1960	19.2	3.6	3.6	3.6
1970	45.4	5.7	4.7	3.6
1980	107.5	9.1	6.2	3.6
1990	254.2	14.6	8.2	3.6
2000	601.5	23.3	10.8	3.6

<sup>35</sup>E. D. Domar, "The burden of the debt and the national income," *American Economic Review*, Vol. XXXIV, No. 4, December 1944, reprinted in *Readings in Fiscal Policy*, American Economic Association, Allen & Unwin, London 1955.

<sup>36</sup>Debt charge figures are the *gross* totals shown in the Report of the Central Bank of Ireland, 1962, Statistical Appendix, Table XVI, p. 66. Since the public debt is a monetary entity, it is the national income in *current* prices which is relevant here.

projected forwards on the assumption of a continued annual rise of 9 per cent. Obviously its relationship to the national income will depend on whether national income (at current prices) rises more or less rapidly than this. Table VI shows the percentages which would apply after 40 years at different assumed rates of growth. At the growth rate nearest to that of recent experience (6 per cent.) a debt charge rising continuously at 9 per cent. would amount to 6 per cent. of the national income after 20 years and about 11 per cent after 40 years. Whether such a proportion is "too high" in some sense naturally depends on the importance attached to rising tax rates (assuming all other expenditures relatively unchanged) in comparison with the advantages envisaged by the authorities in expanding the debt in this fashion. It would be hard to argue, however, that such a proportion would be innately disastrous.

The limits applicable to externally-issued debt are obviously much more real and significant. The most important consideration is naturally that the capital inflow should lead to a growth of national income which is more than sufficient to absorb the additional debt burden. The problem of foreign exchange availability is raised, however, as well as that of growth itself. If the proceeds of external borrowing do not result, directly or indirectly, in an increase of exports or reduction of imports during the lifetime of the issue, the servicing of the debt might generate balance-of-payments problems of some magnitude.<sup>37</sup> If such problems subsequently inspire deflationary policies for the economy as a whole, it is conceivable that the overall rate of economic development will prove to be slower as a result of external borrowing than it would have been without it. At the same time, it is not always easy to assess the effects of particular projects on the balance-of-payments, especially when there is no obvious connection between them; how, for example, is the effect of a hydro-electric generating station on exports to be measured? It is easier to formulate the balance-of-payments limitation in general terms than to define its exact incidence in practice. Nevertheless it is clear that with a reasonably productive use of foreign capital, external debt need cause no insoluble problems; it can be shown, indeed, that under quite reasonable assumptions with regard to production and consumption functions the likelihood of a country being able to service foreign debt is greater if the foreign capital inflow is large than if it is small.<sup>38</sup>

<sup>37</sup>And *a fortiori* if the proceeds are used on projects which result in an increase of imports over and above those involved in the original capital installations.

<sup>38</sup>See G. M. Alter, "The servicing of foreign capital inflows by under-developed countries," *Economic Development for Latin America*, (Eds. Ellis and Wallich), Macmillan, London, 1961, Chap. 6, pp. 139-160.

In any event, the problem does not seem likely to attain serious proportions for Ireland. As was shown in Table V, external debt in the usual sense of the word amounted in 1962 to less than £40 million or about 9 per cent. of the total; although no detailed estimates of the distribution of holdings of the Irish debt are available, it seems unlikely that external holdings of internally-issued debt would exceed £20 million.<sup>39</sup> Against this can be set the holdings by Irish residents of British and other foreign government securities which were put at about £36 million for persons alone in 1953-55<sup>40</sup> All this is reflected in the balance-of-payments data, which show Ireland as a net creditor on investment income account in recent years to the tune of some £12 or £13 million a year.<sup>41</sup>

## 8. Conclusion

The complexity of the role of the public debt in the developing economy makes an adequate summary of the argument rather difficult. Nevertheless it is perhaps worth stressing that the traditional, and obvious, function of the debt in channelling purchasing power to the government itself clearly remains of tremendous importance. This is true whether the proceeds of debt issues are used directly in the finance of pre-determined government expenditures or whether they are used in the broader task of ensuring that those expenditures, together with those proposed by the private sector, are consistent with a reasonable equilibrium of aggregate demand and aggregate supply and/or an adequate rate of growth over the economy as a whole. Similar considerations apply to debt issues on behalf of government agencies, local governments or nationalised industries.

The second broad task of the public debt is to assist in the finance of development projects by private enterprises. The obvious role of the debt here is to act as a medium through which funds are passed from personal or institutional savers to individual enterprises *via* development banks and credit agencies. A less obvious, and longer-term, role is to encourage the development of active security markets and the growth of the habit of portfolio investment, so that the flow of funds from savers to enterprises, in the non-government sector, is ultimately established directly.

Thirdly, the debt has an important role in stimulating savings and in encouraging their useful application within the economy, thus preventing their loss in hoards or external leakages. Here the

<sup>39</sup>See *The ownership of personal property in Ireland*, p. 11.

<sup>40</sup>*Ibid.*, Table VIII, p. 17.

<sup>41</sup>£15 million in 1961—*Economic Statistics* (Pr. 6509). Stationery Office, Dublin, 1962, Appendix, Table 2, p. 17. Note also the relatively high level of Ireland's official external assets shown in the Appendix Table.

emphasis must be on the form of borrowing, rather than on the disposition of the proceeds. The debt must be designed primarily to meet the needs of potential lenders, not the requirements of the official borrowers.

In all these ways, then, the public debt bears upon the finance of development, influencing not only the total volume of the funds available to finance capital formation but also the pattern of their disposal. Within the limits imposed by the need to maintain public confidence and external equilibrium, the authorities possess in the public debt a development instrument of considerable power. The main emphasis in its application will naturally vary according to the state of the economy concerned. In the earliest stages of growth its direct role in financing official and semi-official development expenditures will probably predominate; as the economy develops, its task in the encouragement of finance for the non-government sector will increase in importance; at the highest stage of development, when direct government expenditures have retired somewhat into the background as a

determinant of the rate of expansion, the overall controlling powers of the debt in the context of monetary policy may come to the fore.

The evidence discussed at various stages of this paper suggest that the growth of the Irish public debt is largely classifiable under the first of these headings, but in recent years debt policy in Ireland has clearly moved more towards the second. The "State Debt Balance Sheet" presented in the Financial Statement indicates that by March 1962 some 40 per cent. of the accumulated gross debt was accounted for by repayable advances and shares, and a further 32 per cent. by various voted capital services. Budget deficits had accounted for little more than 10 per cent. of the total.<sup>42</sup> At all stages, however, both for growing economies in general and for Ireland in particular, the public debt, prudently but imaginatively managed, remains a complex, far-ranging and powerful instrument of policy in the maintenance of a steady and healthy growth in the whole economic system.

<sup>42</sup> *Financial Statement, 1962*, (Pr. 6493), Stationery Office, Dublin, 1962, Table XII, p. 15.

APPENDIX TABLE: MONETARY INDICATORS, 1961

Country	Prices 1953=100		Money supply: % of national income	Yield on Government Bonds %	Per caput Official Foreign Reserves \$
	Retail prices	Wholesale prices			
I	2	3	4	5	6
IRELAND	121	114	34.4	6.20	119
Austria	122	115	29.6	n.a.	117
Belgium	111	102	50.7	4.39	180
Denmark	122	107	33.0	6.22	55
France	138	132	47.0	5.06	64
Germany (F.R.)	114	105	22.5	6.00	121
Greece	135	134	19.2	n.a.	30
Italy	118	99	48.1	5.14	69
Netherlands	123	102	34.6	4.01	147
Norway	124	113	31.0	4.69	77
Portugal	109	102	76.4	3.72	76
Spain	155	156	43.3	n.a.	28
Sweden	127	113	20.3	4.55	89
Switzerland	110	101	63.2	2.98	504
Turkey	236	246	12.3	4.55	8
United Kingdom	125	116	29.1	5.91	63

Sources: *Statistical Yearbook 1961*, United Nations, New York 1962 (SY) and *Monthly Bulletin of Statistics*, United Nations, New York, August 1962, (MBS).

Col. 2—SY, Table 162 and MBS, Table 48, except that the index for Denmark between 1953 and 1958 was taken from *Twelfth Annual Economic Review*, O.E.E.C. Paris 1961, Statistical Appendix, Table 51. The series refer to all items.

Col. 3—MBS, Table 46. Series relate to general wholesale prices except for Austria (Basic materials) and United Kingdom (Finished products).

Col. 4—MBS, Tables 49 and 51. Series show total money supply mid-1961, as per cent. of 1960 national income. The national income figure used for Sweden is that of gross national product at factor cost.

Col. 5—MBS, Table 54. Yields are those on government bonds with 12 or more years to maturity at December 1961

Col. 6—MBS, Tables 1 and 52. Data relate to December 1961.

## THE ECONOMIC RESEARCH INSTITUTE

### **Publication Series :**

1. *The Ownership of Personal Property in Ireland*  
Edward Nevin
2. *Short Term Economic Forecasting and its Application in Ireland*  
Alfred Kuehn
3. *The Irish Tariff and The E.E.C. : A Factual Survey*  
Edward Nevin
4. *Demand Relationships for Ireland*  
C. E. V. Leser
5. *Local Government Finance in Ireland : A Preliminary Survey*  
David Walker
6. *Prospects of the Irish Economy in 1962*  
Alfred Kuehn
7. *The Irish Woollen and Worsted Industry, 1946-59 : A Study in Statistical Method*  
R. C. Geary
8. *The Allocation of Public Funds for Social Development*  
David Walker
9. *The Irish Price Level : A Comparative Study*  
Edward Nevin
10. *Inland Transport in Ireland : A Factual Survey*  
D. J. Reynolds
11. *Public Debt and Economic Development*  
Edward Nevin

### **Reprint Series :**

1. *Commentary on "Europe's Future in Figures"*  
R. C. Geary