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THE economist shares an interest with the rest of mankind in wealth, the manner in which it is held by persons in a state and its distribution among those persons. Current wealth is a measure both of past economic growth, and of abstinence from consumption of income in previous years. Wealth is also an important factor influencing economic growth and prosperity in the future. Wealth is important to the individual; in that it can assist its holder to achieve a greater command over current goods and services than that conveyed by current income alone, either by spending part of the accumulated capital, or by using the capital as security in order to borrow from financial institutions.

In the field of welfare economics, it has always been held that wealth is unequally distributed among a country's population, and that it is normally distributed even more unequally than income; empirical studies have tended to confirm these suspicions. Attempts to redistribute wealth, primarily by means of progressive rates of taxation upon inherited wealth, have a history longer than attempts to redistribute incomes by means of progressive direct taxation. Some system of taxing wealth passing on death is to be found in all developed countries. Indeed, investigation has been made by several researchers into the desirability of some form of wealth tax, whereby all wealth would be subject either to a oncefor-all or to a regular taxation impost. An annual wealth tax, at very low rates, has been in operation in several Continental countries for many years. For these and other reasons, the study of wealth, its, composition and distribution, is of considerable theoretical and practical importance.

For many years, estimates of the distribution of personal wealth, based upon estate duty statistics, have been available for several countries. The method was introduced by private researchers,<sup>1</sup> and has in recent years been used by official

1 all in 1. For example, see R. J. Lampman, "Changes in the Share of Wealth Held by Top Wealth-Holders, 1922-1956" Review of Economics and Statistics, 41, November, 1959, pp. 379-392;

G. N. Daniels and M. Campion, The Distribution of National Capital. Manchester University ess, 1936; and H. F. Lydall and D. G. Tipping, 'The distribution of Personal Wealth in Britain', Bulletin of Press, 1936; and '

the Oxford University Institute of Statistics, Vol. 23, No. 1, 1961, pp. 83-104.

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statistical agencies.<sup>2</sup> No estimates of wealth distribution were compiled for the Republic of Ireland until 1961,<sup>3</sup>/and the first estimates for Northern Ireland were not published until the following year.<sup>4</sup> Governmental agencies have not published any estimates for either part of Ireland, but the present author compiled some more recent estimates for the distribution of wealth, in 1966, in the Republic of Ireland.<sup>5</sup> The opportunity is now taken of extending this study to cover the distribution of wealth in Northern Ireland in the same year. In this paper, affer a short description of the methodology employed, estimates of the total wealth in Northern Ireland are given, together with the distribution of that wealth among the adult population. The components of that wealth are also estimated, as well as the distribution of wealth among the different age groups. Comparisons are given with the Republic of Ireland, derived from the author's previous study, as well, as with estimates for earlier years.

The Nature of the Calculation

e manific chequinar anyta main Essentially, all studies in this field proceed in a similar fashion, although variations in the availability of published statistics have produced different methods of finding solutions to some of the problems. Persons, who die in a particular year and who leave wealth in their estates, are assumed to be a representative sample of the survivors in each age and sex group in the population. The amounts of capital left by the deceased, which are published by the Revenue Officials responsible for the administration of estate duty, are then multiplied, by the reciprocal of the ratio of those who have died, to the surviving population in each age and sex group. . If 10 persons in a particular age and sex group died in one year, the mid-year, population of that group was 200, and the capital in the estates of the deceased totalled £,100,000, the following calculation: vi control sudistribution or remain or story of texting wealth and an on death is to be found in all low-honed councies." Indee 4, investigation has been (<u>and ha</u>), 606,001 yatchets into the denoisable, of so a constraint and a subject entiter to a openfor-thor to a nighter taration impost, for annual wealth tax, at very low merey would produce a wealth estimated of £2 million for the surviving population in that group. The most important limitation involved in this approach is that the persons who die in any one year,' and more especially those who leave estates which can be examined, form only a very small proportion of the total population. There were, for example, 81,021 males aged between 45 and 54 in the population' ntro measured by private evolutions, and one is recent plan by micht

2. For example, see wealth estimates for Great Britain in Inland Revenue Statistics, 1970 H.M.S.O., 1970; ppi 176-184. 2011 for the test of which we great in the state of the

Paper No. 1. Dublin (1961.) the O main the northeline of the work are D. M. Inc. (D. 1960.) 4. T. A. B. Corley, "The Personal Wealth of Northern Ireland 1920–1960", Journal of the Statistical and Social Inquiry Society of Ireland, Volb XXI, Part I, 1962-63, pp. 14-30.011

5. P. M. Lyons, "The Distribution of Personal Wealth in Ireland"; Chapter VI in A. A. Tait and J. A. Bristow (eds.) Ireland—Some Problems of a Developing Economy, Dublin, Gill and Macmillan 1972, pp. 159–185.

of Northern Ireland in 1966, but only 311 estates were examined in that category during the financial year 1966/67.

In order to minimise some of the variation which can arise from small samples, it is usual to group estates from several years together in the analysis. A common practice is to average the estimates of three years, taking the average as referring to the middle year of the three, a method employed also by Corley.<sup>6</sup> In this paper, however, the average of two years only is used, since this was the method adopted in the author's estimates for the Republic. The estate duty statistics for 1965/66 and 1966/67 were combined, covering the period from April 1965 to March 1967, and were considered as applying to April 1966, precisely in the middle of the period, at which time a Census of Population was taken, which revealed the age and sex distribution of the population with greater accuracy than would be discovered in a year when the Census was not taken. The number of. deaths, however, was taken in respect of the calendar years 1965 and 1966. This again is a common approach, since there is generally some time-lag between a person's death and the presentation of that person's estate for estate duty purposes. It is usual also to assume that the mortality experience of those who own wealth is different from that of the general population, and so the mortality rates used are those of the upper social classes in the population.<sup>7</sup> This approach is not followed in this exercise because no such upper class mortality rates are available for Northern Ireland or the Republic. No. Sec.

An analysis is published each year by the Estate Duty Office in Northern Ireland, providing details of the number of estates in the various capital ranges, classified by age and sex, in respect of all new estates which were first presented in that year.<sup>8</sup>

These combined figures for the two years were applied to the numbers of deaths in 1965 and 1966<sup>9</sup> and the numbers of the population<sup>10</sup> to estimate the numbers of persons in the surviving population in the various categories, classified by age, sex and range of net estate. Estates of persons whose age was not stated could not be included in the analysis, but estates of persons resident outside Northern Ireland, who left wealth there, are included. It must be added that an estate which was first presented in one year might have belonged to a person who died long before the year of reference, and thus be very much out of date, and that later analysis could shift an estate to another range of net estate category, either above or below that in which it was originally included.

The under-25 years category presented some problems, in that it was assumed that persons under the age of 20 owned no wealth! but the number of males who 6. Corley, op. cit., p. 16. (10 000 and 100 and booth and booth and 10 and 10 7. Lydall and Tipping, op. cit., pp. 98-100. (10 and 10 and 10 and 10 and 10 and 10 and 10 (10 and 10 and

10. Government of Northern Ireland, Census of Population, 1966. General Report. H.M.S.O. Belfast, 1968, pp. 70-71.

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left estates included in this estate duty age group exceeded the number who actually died in the 20 to 24 year age group. Accordingly, it was assumed that only half those who left estates in the under 25 years group were aged between 20 and 24 years, and a similar approach was taken in respect of females in this age group. This arbitrary approach has probably still produced some overestimation of wealth in this age group.

Finally, the numbers of persons in each category were applied to the midpoint of each range of net estate. It was assumed that persons in the 'Nil' category owned no wealth, and that the mid-point of the final class was  $\pounds_{150,000}$ . If those who left 'Nil' estates in fact each left an average of  $\pounds_{50}$ , they would raise the estimate of total wealth by about 1.5 per cent, as opposed to 2.5 per cent in the case of the Republic.<sup>11</sup> Further, whereas the statistics were published in only 5 ranges of net estimate in Northern Ireland, 23 separate categories are published in the Republic, where the top class is  $\pounds_{400,000}$  and above, and a different method was used to estimate the wealth distribution in estates valued below  $\pounds_{5,000.^{12}}$ 

	Northern Ireland	Irish Republic	All Ireland
Net Capital Value	Number Amount 'of Persons of net aged 20 Capital and over (Lmillion)	aged 20 - Capital	t of Persons of net
Nil 'Exceeding Not exceeding 'L' L 5,000 10,000 25,000 25,000 50,000 100,000 100,000 100,000	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	32,262 498 8,947 316 3,044 210	1,669,178 837,848 73,155 ,46,561 11,546 414, 4,953 349 1,171 216
Total	920,162 1,552	1,724,250 2,121	2,644;412 3,673

TABLE I: The Distribution of Personal Net Capital in Ireland, 1966

The Distribution of Personal Capital

These calculations produced the estimates given in Table 1, which gives the distribution of personal net capital, in Northern Ireland, the Republic of Ireland, and All Ireland, in 1966, showing the numbers of persons owning wealth in each range of estate value, and the total amount of wealth owned by those persons.<sup>1</sup> Total personal wealth in Northern Ireland is estimated at  $\pounds_{1,552}$  million, as

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<sup>1</sup>11. Lyons. op. cit., p. 167. 12. ibid., pp. 182–185.

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opposed to £2,121 million in the Republic. Wealth is higher in the Republic than in Northern Ireland in every category, except in the under £5,000 class, where Northern wealth is larger by more than £210 million, possibly due to the undervaluation of agricultural land in the Republic,<sup>13</sup> and to the probable overestimation of wealth-holders in Northern Ireland in the youngest age group, mentioned above; most of whom appeared in this class.

The calculations upon which Table I is based show that males tend to own a disproportionately large percentage of total wealth in both parts of Ireland. In Northern Ireland, males account for 47 per cent of the total population aged 20 and over, but for 61 per cent of total personal wealth. The disproportion is even more marked in the Republic, where males, although comprising marginally below 50 per cent of the adult population, own 72 per cent of personal capital. In both Northern Ireland and the Republic, females tend to own wealth at a more advanced age than males.

Compared with the estimates made by Corley,<sup>14</sup> for 1960, the present estimates are approximately double in size. In 1960, it was estimated that gross personal wealth in Northern Ireland was £,746 million, and £,1,051 million in the Republic. There was, undoubtedly, an increase in the volume of wealth, due to capital investment, during the period from 1960 to 1966, as well as an increase in the value of capital due to inflation. But these would not appear to provide an adequate reason for the differences in the estimates, although they do serve to indicate some of the deficiencies in using estate duty, statistics alone for the purpose of wealth estimation. Over such a short period, however, it is not to be expected that the ratios of personal wealth in each part of Ireland would change significantly, and it is interesting to note that the proportion of personal wealth in All Ireland owned in Northern Ireland was 41.5 per cent in 1960, and 42.3 in 1966.

Table 2 presents the percentage distribution of the adult population and of personal wealth in Ireland. Nearly 60 per cent of adults in Northern Ireland, and almost 65 per cent of those in the Republic, possess no wealth. Just over 35 per cent of adults in Northern Ireland own net wealth of less than £ 5,000, and they account for over half, or 52.5 per cent, of total wealth. In the Republic, nearly 30 per cent own less than  $f_{,5,000}$  and their share of the total is only 28.4 per cent. In Northern Ireland, slightly less than 5 per cent of the adult population have net wealth in excess of £,5,000 and they own 47.5 per cent of the total, whereas in the Republic the top 5.36 per cent, who own more than £,5,000 each, account for over 71 per cent of total wealth. This discrepancy is continued in the higher wealth ranges, and must lead to the conclusion that, in spite of the defects in this type of analysis, particularly in the treatment of estates in the  $f_{100,000}$  and over category, wealth is less equally distributed in the Republic than in Northern Ireland. The facts that the economy of the Republic is more agricultural than that of Northern Ireland, that farmers are generally not liable to income taxation, and that land is undervalued for estate duty purposes, provide possibly some of the explanation

 13. Lyons. op. cit., p. 173.
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	and a second	Northern Ireland		Irish R	epublic	All Ireland	
	Capital Value f Estate	Percentage of persons aged 20 and over	Percentage of total net capital	Percentage of persons aged 20 and over	Percentage of total net capital	Percentage of persons aged 20 and over	Percentage of total net capital
Exceedin	Nil g Not exceeding	s9·65	0.00	64•97	0.00	63•12	0.00
the second second	<del>ل</del> ي 5,000	35.42	52-51	29.69	28.43	31.68	38.01
5,000		- 2•85	12.66	2.72	5 5	· ( <sup>2</sup> ·77 )	14.38
10,000 25,000		1•55 0•28	16•13 6•28	1•87 0•52	23 <b>·</b> 48 14·90	0.44	20·36 11·27
50,000	- · .	0.20	8.95	0.18	9.90 ,	.0.19	9.20
100,000	1 <b>C</b>	0.04	3.47	0.02	7 64	0.04	5.88
Total		100.00	100.00	100.00	100.00	100,00	100.00
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 TABLE 2: Percentage Distribution of Adult Population and Wealth in All Ireland, 1966

for this greater inequality. Again compared with Corley's carlier estimates,<sup>15</sup> whereas the inequality in the distribution of wealth appears to have decreased somewhat in Northern Iteland since 1960, it has hardly altered in the Republic. For All Ireland, the top 5.1 per cent of the population possess over 60 per cent of total wealth, while more than 60 per cent of the adult population on the island own no wealth.

The Components of Personal Capital ...

<sup>1</sup> In the Republic, estates with a value above the exemption limit for estate duty  $(\pounds, 5, 000)$  are published in component form, classified by age group and sex. In Northern Ireland, the components are published classified only by the range of net capital value of the estate; although they do cover all estates, whether dutiable or not, recorded during each financial year.<sup>16</sup> It is thus not possible to apply the mortality approach used above to the Northern figures published for components of estates. As an approximation, however, it was assumed that the total amount of wealth in each capital range in the component distribution of estates was the same as that already computed, and that the percentage distribution of assets by kind of asset as published could be applied to that total amount of wealth in each capital range. This is not an ideal approach, since it ignores the fact that persons tend to own different kinds of assets as they grow older (house property, for example, is likely to form a larger proportion of a young person's estate than it would of an

15. Corley, op. cit., p. 24.

16. Digest of Statistics No. 26, and No. 28, pp. 72-73.

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older person's), that young persons are likely to have larger deductions from their gross estates than older persons, and that males and females might tend to hold their assets in different forms.

The method of calculation employed for the Republic is very different, and produces an altogether different result for the total of wealth held in estates valued at over  $\pounds$ , 5,000 compared with the grossing-up of estate range statistics, for reasons which are explained in the original article.<sup>17</sup>

Turn of Actor 1	Norther	n Ireland	Irish Republic	
Type of Asset	Total Asset Values £ million	Percentage of Total Net Capital	Total Asset Values £ million	Percentage of Total Net Capital
Government and Municipal Securities-	,			÷.,
Domestic	70 ·	4 51	· 102 ·	8.85
Government and Municipal Securities-				· · · ·
Foreign	106	. 6.83	19	1.65
Corporate Securities-Domestic	99	6.38	181	15.64
Corporate Securities—Foreign	188	12.11	148	12.83
Mortgages, Money on Bills, etc.	38	2.45	• 3	1.0.30
Household goods	46	. 12.96	22	* * • 1•92
Insurance Policies	60	3.86	. 117	10.10
Cash in House and at Bank (including building societies)	327	21.07	139	12.06
Trade Assets	53°	3.42	74	6•39
Other Assets (Personalty)	74	4.77	· 108	9.31
Total Personalty	1,061 •	68.36	913	,79.06
Land	281	18.11	173	14•96
Houses and Business Premises	321	20.68	127	10.99
Other Assets (Realty)			58	4.98
Total Realty	602	38.79	358	30.93
Total Gross Capital	1,663	. 107:15	; I,27I	, 109 <b>·</b> 99 ,
Deductions	111 -	.4.12	115	<u>9</u> •99 ·
Total Net Capital	1,552	100.00	1,156	, 100.00

 TABLE 3: Estimated Components of Total Personal Capital in Ireland, 1966

The analysis of estates by components' is presented in Table 3. The estimates are not combined to provide estimates for All Ireland for three reasons. In the first place, the Northern Ireland figures relate to all estates, while those for the Republic refer only to those with a net value of  $f_{.5,000}$  or more. Secondly, the two calculations are on an entirely different basis. Finally, the combining of certain components would be misleading. For Northern Ireland, "domestic" when applied to securities, both Government and Municipal and Corporate, means "within

17. Lyons. op. cit., pp. 182-183.

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Northern Ireland":"Domestic" when used for the Republic; refers to securities issued by bodies located in the Republic. Some "foreign" Government Securities held in Northern Ireland are therefore Republic of Ireland "domestic" securities. Other descriptions of type of asset in the Table might not correspond exactly in hthe two areas i black and a factor of the two and a data and a start of the second of The addition to the above difficulties, it must be stressed that there is the likelihood of serious undervaluation in several of the assets! Evasion of estate duty, gifts inter vivos, settled property, agricultural land, and cash, all present serious problems in this respect.<sup>18</sup> In adjusting the estimates for Northern Ireland to pre-determined totals, there occurs the probability, that because some assets are under-valued other -assets are over-valued. The statistics in Table 3 must therefore be treated with greater reservation than those elsewhere in this analysis.

According to the Table, personal property would appear to account for just over 68 per cent of total wealth in Northern Ireland, but for over 79 per cent in the Republic. The low estimate for real property in the Republic is probably largely accounted for by the artificially low valuations applied to agricultural land and buildings. (Artificial valuations for agricultural land are no longer allowed in Northern Ireland, although some estates included here might have belonged to persons who died earlier, at a time when such valuation was permitted.)

All items in the Table, apart from Foreign Corporate Securities and Household Goods, show considerable differences as a percentage of the total net capital, not all of which might be highly significant. Corley<sup>19</sup> estimates that, in 1960, land, household property and buildings accounted for 27 per cent of gross personal wealth in Northern Ireland, and for 33 per cent in the Republic. If the estimates in the Table are recalculated as a percentage of gross, and not net, wealth, the present estimates for the Republic are very similar, but those for Northern Ireland are vastly different. The blame for this discrepancy probably attaches largely to the 113.0 present exercise. · . . . .

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# The Distribution of Wealth among Age Groups

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Previous studies in other countries indicate that the elderly tend to own more wealth than the young, and that average wealth per person increases regularly with age.20 Table 4 presents the estimated distribution of all capital among the various age groups in Northern Ireland and the Republic. With some anomalies, the expected pattern is apparent in Northern Ireland. Those aged 55 and over, as they do in the Republic, own, on average, more wealth than those below that age. Average net capital rises from  $\pounds 1,096$  in the 20 to 24 year age group to  $\pounds 2,938$ in the 85 year and over group. Average net capital per person in the 20 to 24 year age group appears to be higher than might be expected, and the proportion in the age group owning capital appears too great also. Mention has been made already 18: See Corley, opecit., p. 16 and Lyons, op. cit.; pp. 173-175. (7) yord (10) 19. Corley, op. cit., p. 22. AND THE TO A MERY ! . .

20. For example, see Lydall and Tipping, op. cit., p. 96.

Agrice (1990) La Brick (1990) La Brick (1990) La Brick (1990) La Brick (1990) La Brick (1990) La Brick (1990)	TABLE 4: Estimated Distribution of All Capital between Age Groups, Ireland, 1966	
	Irish Republic	•
Age Group to A the A	Percentage of Total Percentage of Population Group Total Net Aged 20 and Net Capital Owning Capital over in Per Person Capital Owned by Age Age Group Group Group L	
20-24 years 25-34 years 35-44 years 55-64 years 65-74 years 75-84 years 85 years and over	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	The second se
TOTAL (or average)		

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of this feature. Although the proportion owning capital in the 25 to 34 year group is also a little higher than expected, the average net capital per head rises regularly with age until the drop in the 65 to 74 year age group. There is no apparent reason for this result, and it might not be a true reflection of the actual wealth distribution among age groups, but could arise from the dangers inherent in basing conclusions upon small samples.

In the Republic, average capital rises to a peak in the 55 to 64 year age group, for reasons which are examined elsewhere.<sup>21</sup> Apart from this, the distribution of capital among age groups differs considerably in Northern Ireland compared with the Republic. A larger proportion in each age group in Northern Ireland own capital, partly reflecting the greater inequality in wealth distribution in the Republic, and also the greater proportion of the population not possessing any wealth in that State. Average net capital per head is lower in each age group in the Republic, being little more than half the Northern value in the 85 years and over class. Overall, the average adult wealth possession in Northern Ireland is  $f_{1,686}$ , as opposed to only  $f_{1,231}$  in the Republic, being greater by nearly 37 per cent. This is a reflection of the fact that average income is higher in Northern Ireland than the Republic. In 1966/67, total personal income in Northern Ireland is estimated at  $f_{,621}$  million,<sup>22</sup> and the present estimate of personal wealth is 249.9 per cent of personal income. Personal income in the Republic in 1966, however, was  $\neq$  901.9 million,<sup>23</sup> and personal wealth is therefore 235.2 per cent of personal income. Personal income per head of the adult population is  $f_{0.05}$  in Northern Ireland, as opposed to  $f_{1,523}$  in the Republic. Income in Northern Ireland is thus 29 per cent higher than in the Republic, a difference which is not as great as that found with wealth.

## Conclusion

It would appear from this analysis that total personal wealth in Northern Ireland in 1966 was  $\pounds_{1,552}$  million. While this is lower than the estimate of  $\pounds_{2,121}$ million for the Republic in the same year, the average of  $\pounds_{1,231}$  in the Republic. Males own 61 per cent of total wealth, whereas they represent only 47 per cent of the adult population. In the Republic, the disproportion in favour of males is even more marked, where males, who comprise 50 per cent of the adult population, own 72 per cent of personal capital.

In both parts of Ireland there is substantial inequality in the distribution of personal wealth. Although the inequality in Northern Ireland is being gradually reduced, the top 5 per cent (approximately) of the adult population own over 47 per cent of total personal wealth. Inequality is again more marked in the Republic where the top 5 per cent (approximately) possess over 71 per cent of the

21. Lyons, op. cit., p. 176.

22. Northern Ireland, Digest of Statistics, No. 35, March, 1971, p. 77.

23. National Income and Expenditure, 1969. Prl. 1727. Stationery Office, Dublin, March, 1971, p. 17.

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total. In Northern Ireland, average wealth per head, with some exceptions, increases regularly with age, but it reaches a peak in the 55 to 64 year age group in the Republic.

Little reliance can be placed upon the estimates of the asset distribution of wealth in Northern Ireland, since this estimate was not calculated by means of the mortality multiplier approach. Indeed, with adequate resources, the best method of undertaking this kind of exercise would be to examine the estates of all persons who died in a particular year or years, waiting until all those estates had been presented to the estate duty office and all had been finalised. This approach would . still involve considerable under-estimation of some components, and the estimates would need supplementation from other sources. Any consideration of some new form of taxation upon wealth, however, would require estimates of wealth distribution possessing greater reliability than those which are possible at the moment.

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