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ESTIMATES OF MARGINAL TAX RATES FOR DIVIDENDS AND

BOND INTEREST IN THE UNITED KINGDOM 1919-1970

by

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I INTRODUCTION

This study estimates the effective marginal rates of taxation levied during the period 1919-70 on receipts by U.K. investors from :-

(a)   dividends, and

(b)   interest on bonds (i.e. quoted fixed

                 interest securities).

The estimates make allowance for the diverse marginal rates of income tax and surtax (supertax) payable by different categories of recipients, namely the various personal income groups and certain types of institution. The procedure is to distribute a marginal £1 of dividend/interest in each year among the relevant categories according to their estimated proportions of the total holding of all shares/bonds and (after tracing distributions to institutions notionally to the ultimate personal recipients) to calculate a weighted average of marginal rates. Such an average estimates the tax effectively borne by a security with a representative pattern of ownership. No individual security is likely to be distributed according to such a pattern, but it is hoped that the averages provide reasonable overall values of marginal taxation for use in aggregative studies of savings, portfolio selection and the cost of capital. The results also have some bearing on the management of public revenue and on policies affecting the distribution of wealth and income[1]. In addition to the overall weighted averages, marginal rates are given for particular sectors, including a weighted average for the personal sector as a whole (Table 4). Unfortunately it is not possible to place too much reliance on the results presented here, particularly for the early years when data are most inadequate. Some of the methods adopted are quite speculative, and in these cases the outcome is presented in the hope that informed guesses are better than no estimates at all.

[1] It will be borne in mind that the rates of taxation considered in this Paper do not apply to capital gains.

The main results are set out in Table I, which shows overall weighted averages of marginal tax rates for dividends and bond interest in each year as well as the standard rate of income tax. Section II discusses the classification of holders of shares and bonds according to their tax characteristics. Section III describes the methods of calculating marginal tax rates for the various categories. Section IV gives an account of the determination of the weights. A few conclusions are stated in Section V. Further details of the computation and values of the weights assigned to income groups in the personal sector may be found in Appendix A and Table 2. The overall weights of the personal sector and the various institutional sectors are given in Appendix B and Table 3. Finally, Appendix C sets out various tax rates. Our estimates of weighted tax rates for individual sectors are given in Table 4. For ease of reference, the actual rates of surtax in each year are set out in Table 5 and the agreed composite rates for building societies in Table 6.

TABLE 1

ESTIMATED OVERALL MARGINAL TAX RATES AND STANDARD RATE

Percentages

| YEAR | WEIGHTED AVERAGES OF MARGINAL RATES | | STANDARD RATE OF INCOME TAX |
	DIVIDENDS	BOND INTEREST	
1919/20	39.29	32.47	30.00
1920/21	41.10	33.98	30.00
1921/22	40.75	33.74	30.00
1922/23	35.68	29.17	25.00
1923/24	33.36	27.24	22.50
1924/25	33.44	27.24	22.50
1925/26	29.04	23.87	20.00
1926/27	29.57	24.06	20.00
1927/28	29.12	23.75	20.00
1928/29	29.51	24.13	20.00
1929/30	31.39	25.69	20.00
1930/31	34.74	28.03	22.50
1931/32	36.70	29.66	25.00
1932/33	36.66	29.56	25.00
1933/34	36.72	29.52	25.00
1934/35	34.53	27.30	22.50
1935/36	34.81	27.46	22.50
1936/37	36.42	28.66	23.75
1937/38	37.15	28.89	25.00
1938/39	41.65	32.49	27.50
1939/40	50.47	38.95	35.00
1940/41	57.78	44.43	42.50
1941/42	65.01	49.71	50.00
1942/43	64.97	46.36	50.00
1943/44	64.93	46.11	50.00
1944/45	64.92	44.12	50.00
1945/46	63.95	42.13	50.00

TABLE 1 (cont'd)

YEAR	WEIGHTED AVERAGES OF MARGINAL RATES		STANDARD RATE OF INCOME TAX
	DIVIDENDS	BOND INTEREST	
1946/47	59.60	37.61	45.00
1947/48	74.30	46.21	45.00
1948/49	58.60	35.94	45.00
1949/50	58.00	35.68	45.00
1950/51	57.36	35.14	45.00
1951/52	59.33	35.92	47.50
1952/53	59.12	35.95	47.50
1953/54	56.51	34.24	45.00
1954/55	55.89	34.22	45.00
1955/56	53.01	32.51	42.50
1956/57	52.46	33.04	42.50
1957/58	52.08	31.42	42.50
1958/59	51.80	31.92	42.50
1959/60	48.43	28.19	38.75
1960/61	48.92	28.14	38.75
1961/62	48.92	29.83	38.75
1962/63	49.05	27.76	38.75
1963/64	48.80	27.30	38.75
1964/65	48.77	27.12	38.75
1965/66	55.48	30.38	41.25
1966/67	48.79	27.58	41.25
1967/68	49.03	27.47	41.25
1968/69	48.91	26.17	41.25
1969/70	48.49	28.22	41.25

II CLASSIFICATION OF OWNERSHIP

The overall marginal rate of tax effectively paid on dividends/bond interest is estimated here as a weighted average of the marginal rates applicable to certain categories of owners of shares/bonds, the weights being the proportional holdings of the total value of the asset in question. The categories are chosen according to marginal tax liabilities ; we now discuss the classifications for, (a) shares, and (b) bonds.

(a) Shares

Several main classes of shareholders may be identified, namely persons, life insurance companies, pension funds, charities, unit trusts, investment trusts, industrial and commercial companies, nominees and overseas holders.

Some of these groups are only intermediate recipients of dividends, passing on most of their receipts to other groups ; they are not included directly in the analysis since the tax paid on the dividends which they transfer depends in general on the tax status of the final recipient.

Unit trusts fall into this category since they are obliged to distribute all their earnings, net of management expenses ; the earnings are therefore taxed as part of the individual unit-holder's investment income. The position of

investment trusts is different in that they may retain part of their income for re-investment, but in fact most of it seems to be distributed, so that the ultimate tax burden again depends on the status of the final recipient. Similar considerations apply to corporate holders of securities, since their franked investment income is in effect passed on to their own shareholders when dividends are paid.

The beneficial ownership of nominee holdings is something of a mystery. The most extensive study appears to be that of J. Revell and J. Moyle (30), who investigated samples for 1957, 1962, and 1963, and found that a large part of the holdings were in fact owned by persons, pension funds and insurance companies. Whether or not these findings are true for the entire period, the fact remains that the ultimate owners of nominee shares are to be found in the other groups, and a weight of zero has accordingly been assigned to this category.

Even less research has been undertaken into the ownership and importance of overseas holdings of British shares for any part of our period. As no basis could be found for dealing with such holdings it was decided to exclude them from the study.

The analysis therefore rests on the treatment of four groups of shareholders : persons (including executors and trustees), life insurance companies, pension funds and charities. The earnings of insurance companies and pension funds can be regarded as accruing ultimately to the personal sector Nevertheless an explicit treatment of these intermediaries is needed, because

there is a considerable difference between the total tax paid on dividends

eventually accruing to individuals in the form of insurance or pension benefits

and that paid by them on dividends received more directly.

(b)   Bonds

Four main categories of bond-holders can be distinguished

according to tax status : the "untaxed" sector, the "personal" sector, the life

insurance companies, and building societies.

The "untaxed" sector comprises, by definition, the UK

government, foreign governments and international bodies, and the holdings of

public corporations, local authorities, charities, trusts, pension funds and

non-residents. The reasons for assigning a zero rate of tax vary. In the case

of charities, trusts and pension funds they are explained in Section 3 below. The

holdings of UK Public Departments, local authorities, foreign governments, and

international bodies are legally exempt from UK income tax and surtax. Public

corporations are placed in the untaxed category because they generally return

tax losses, owing to losses on operations or investment allowances or both. In

the case of non-residents, the argument is that their holdings would tend to

consist largely of bonds whose returns are either free from deduction of tax at

source or payable free of tax to non-residents. This view seems fairly reasonable

for the inter-war period when many such bonds were available, but may be

weaker for the years after 1945. A more refined treatment would call for

knowledge of the distribution of overseas holdings by country of residence, and

application of the appropriate double-taxation agreements.

The "personal" sector as defined here comprises holdings of bonds whose returns accrue ultimately to individuals, including industrial and commercial companies, investment and unit trusts and the banking sector. The reasons for including the second and third items in this group have been mentioned above. As for the banks, it is argued that the interest earned on their marginal holdings of bonds largely finds its way to depositors and shareholders as interest and dividend, the relevant tax burden for our purpose being that borne by these final recipients. Finally, we add to this sector the residual factor shown in the statistics published by the Bank of England; this relates to holdings which cannot be readily assigned to other categories in the Tables, but are thought to belong mainly to companies and individuals.

Both life insurance companies and building societies are treated as separate sectors in the bond study; they are further discussed below.

III   MARGINAL TAX RATES

Individuals

An overall marginal rate of tax for this sector must take into account (i) the disparity of marginal tax rates among individuals according to ranges of taxable income; and (ii) the distribution of ownership of securities, and hence of income from dividends and interest, among these ranges. An attempt has been made to estimate for each year a weighted average of the marginal tax rates applicable to the various ranges of income, the weight of each range being the proportion of total personal sector dividends and interest received by persons within that range. Because of limitations of data, a single set of weights and weighted annual tax rates, applicable to both dividends and bond interest, was calculated for the personal sector. The main difficulty encountered in the present study was to obtain the information necessary for deriving these weights. A discussion of data and methods, together with a table of estimated weights, is given in Appendix A.

Insurance companies

Before 1940, life companies paid tax on dividends at the standard rate of income tax. In 1940 their tax rate was fixed at 37.5%, and this rate prevailed until the end of the period studied. In general, policy holders obtain full relief from income tax (but not surtax) on 40% of their annual premiums, and pay no tax on the benefits when the policy matures. The effective tax rate on dividends received through the intermediary of an insurance policy should therefore be calculated so as to take account both of the special rate paid by the companies and of the relief available to policy holders, as follows, Let

r = annual rate of dividend return and interest yield per £ invested by insurance company (given)

t = standard rate of income tax (given)

t' = insurance company tax rate (given)

T_1 = effective tax rate on dividends (required).

Suppose that a person increases his annual premium by £1, achieving an immediate tax saving of $0.4t$ the 'capital base' which he provides is $1-.4t$. Now the insurance company invests £1 for a gross dividend yield r, which is reduced to $r(1-t')$ by taxation. Calculated on the capital base this represents a post-tax yield of:-

$$(1) \qquad \frac{r(1-t')}{1-.4t}$$

On the other hand, the yield per £1 invested in the absence of any taxes is r, so that the effective rate T_1 can be defined by setting $r(1-T_1)$ equal to the expression (1). Hence

$$1 - T_1 = \frac{1-t'}{1-.4t} \qquad \text{or} \qquad T_1 = \frac{t'-.4t}{1-.4t}$$

The calculation for each year has been based on the rates of tax in force in that year; this has been done partly for simplicity, partly because these are the rates which would usually be used in investment decisions. Also, since policy holders usually receive dividends accruing to an insurance company only after a considerable delay during which the funds are reinvested, the above calculation holds strictly only in terms of net present value, with a discount rate equal to the rate of return including capital gains obtained by the insurance fund.

Pension Funds

Pension funds pay no taxes on the dividends which they receive. Annual contributions to a pension fund can usually be deducted wholly from income for the purposes of both income tax and surtax; but the pension when paid is treated as earned income. Proceeding as before, let

$$t_o = \text{person's current marginal rate of tax (given)}$$

$$t_h = \text{person's marginal tax rate after retirement (given)}$$

$$T_2 = \text{effective tax rate on dividends (required).}$$

With an immediate tax saving of t_o per £ contributed the capital base is now $1-t_o$. The pension fund invests £1 and earns gross dividends at the rate r, the accumulated total being passed on to the contributor on retirement and subjected to a tax rate of t_h. In terms of net present value, with a discount rate equal to the rate of accumulation at compound interest in the fund, the net return is $r(1-t_h)$, or

$$(2) \qquad \frac{r(1-t_h)}{1-t_o}$$

per unit of capital base. Setting (2) equal to $r(1-T_2)$ leads to

$$1 - T_2 = \frac{1-t_h}{1-t_o} \qquad \text{or} \qquad T_2 = \frac{t_h - t_o}{1-t_o}$$

which will be negative if $t_h < t_o$. However, it has been assumed for lack of information that $t_h = t_o$, so that $T_2 = 0$ throughout the study.* (see over)

Charities:

Trusts established for charitable purposes are exempt from all taxes on income used for charitable operations. We have assumed that all charities' interest income is entirely devoted to such activities.

*Footnote to page 11.

This assumption is not as restrictive as might at first appear. The purpose of investment in pension funds is to reduce differences between pre- and post-retirement non-property income. This difference, together with the investor's property income, will determine whether his marginal tax rate falls after retirement. The following combinations of property and non-property incomes might be considered:

1.   Moderate employment income and low property income. At the margin, income would be taxed at the standard rate both before and after retirement.

2.   High employment income and high property income. A relatively high pension and high property income after retirement would limit movements between surtax bands which are, in any case, fairly wide at the upper end.

3.   High employment income and relatively low property income. The largest differences in pre- and post-retirement marginal tax rates would probably arise in this category. However, until recently the proportion of incomes falling in this group was fairly small, and, in any case, high earnings would generally lead to capital accumulation and high unearned income in later years.

Building Societies

If individual payments of interest and dividend by building societies were taxed at source, there would be a multitude of small claims for refunds. To avoid these, the so-called "1935 arrangement" was reached with the Inland Revenue, under which the building societies pay a special corporate rate of income tax on their income. This rate, which is negotiated each year, purports to take account of the distribution of marginal income tax liabilities of building society depositors and shareholders, who then receive this income free of further tax. This arrangement was formalised by legislation in 1952. The agreed rates for the years 1938/39 to 1969/70 are listed in Table 6. We were unable to find any record of earlier agreed rates, but since we estimate that building societies then held less than one per cent of all bonds, the errors which result from ignoring this sector are unlikely to be significant.

IV THE WEIGHTS OF SECTORS

Shares

There appears to be little accessible statistical material about the ownership of British industrial share capital. We have tried to use such sources as are available, together with some information about investment trends in the various sectors, to arrive at rough estimates - sometimes, little more than guesses - of the proportions of all shares owned by insurance companies, pension funds and charities ; the residue in each year has been assigned to the personal sector.

The following trends in investment are reflected in our assignment of weights to sectors :

Life insurance companies were not persuaded of the merits of equity-holding until the mid 1920s; thereafter they held an increasing proportion of their portfolio in ordinary shares, so that by 1939 this item accounted for 10 % of total assets. After a change in the direction of investment during the war, this trend was resumed in the late 1940s, and by 1963 the life companies held about 23 % of their assets in ordinary shares.

The growth in pension fund assets is more recent, as is their conversion to equity-holding; besides, until 1961 certain pension funds were not permitted to hold equities. So insignificant were their holdings in the earlier years of the study that until 1950 they have been assigned a weight of zero. By the mid 1960s they held about 40 % of their assets in this form.

The main sources of data used to estimate the insurance company and pension fund weights are the published breakdowns of the composition of pension fund and insurance company portfolios, the annual insurance surveys carried out by The Economist, and the studies by G. Clayton and W. T. Osborn (10), (11). The asset valuations are not generally in current market terms, since new acquisitions are entered at purchase prices and revaluations have been infrequent. It was also noticed that the figures of assets of life insurance companies, and those of the life departments of composite insurance companies, included those assets held for annuity or pension funds. It did not prove possible to divide these assets among life, pension and annuity funds; all equities owned by life insurance companies were therefore treated as though they belonged to life funds.

As for charities, under the Trustee Act of 1925 they were allowed to hold only fixed income securities on the "Trustee List", unless they had specific powers under their trust instruments to hold equities. It was not until the Trustee Investment Act of 1961 that charities were permitted to invest in equity capital, and they can still hold only up to 50% of their total capital in this form. The trend towards equities was reinforced by the formation of the Charities Official Investment Trust, which enabled charities to pool their assets. Information concerning the total equity holdings of charities has proved to be even scarcer than that for other sectors, the main source being the annual reports of the Charities Commissioners.

Bonds:

For lack of information, attention has been confined to UK government and government-guaranteed securities quoted on the London Stock Exchange. In the years from 1963 onwards the weights assigned to sectors

have been based on the detailed figures of holdings of securities published annually in the March issue of the Bank of England Quarterly Bulletin.

Less finely categorised data are given in the June 1962 and March 1963 editions of the same publication for the period 1958 to 1962. The most notable groups for which estimated holdings are not given are individuals, pension funds and overseas (non-official) holders ; but we were able to fill the gaps by using J. Revell's estimates of the beneficial ownership of quoted U K government securities in 1957, 1958, 1959 and 1960 (29).

For the remainder of the period some firm data on the distribution of the national debt are available, although the classification is even less fine. The two main sources are the Radcliffe Report on The Working of the Monetary System, which led to the regular publication of statistics in the Quarterly Bulletin, and the December 1969 number of Economic Trends. These cover the years 1939, 1946, 1947, 1948, 1951, 1956 and 1957, and also give some indication of the situation in 1935 and the remaining years of the 1950s.

For the years in which no firm data were available the weights arrived at are merely our rough estimates of the distribution of bond-holding. These are based on evidence relating to trends in the general pattern of wealth-holding and do not pretend to do much more than to give a general indication of orders of magnitude. The sources used for this purpose are mainly those used in the case of shares (see Appendix A), together with the Colwyn Committee's Report of 1927 and the Economist's Annual Insurance Surveys.

Appendix B sets out the weights assigned to sectors of share

and bond holders, while Appendix C shows calculated tax rates for these sectors.

V. CONCLUSION

The numbers calculated in this exercise are intended mainly to serve as inputs for further econometric work. Nevertheless, they are of some interest in their own right. Table I shows that the composite tax rates for bond interest, although initially greater than the standard rate, generally fell below that level after the introduction of very high rates of tax during the second world war. No doubt this change was due to the increase in holdings of national debt by untaxed bodies, and the movement out of bonds by wealthy individuals. The composite tax rates on dividends are higher than the standard rate throughout the period, but the difference between the two rates expressed as a percentage of the standard rate has tended to fall from the range 40-50 % in the 1920s and 1930s to the range 20-30 % in the 1950s and 1960s. This change reflects both the changing structure of the tax system, in particular the higher general level of the standard rate, and changes in the distribution of equities among sectors. Finally, it is evident that scales of taxation and effective marginal rates have both fluctuated very widely, and no doubt unpredictably, in a period no longer than many a man's business life. This suggests that personal taxation deserves more attention than it has received hitherto as a major source of uncertainty affecting financial decisions.

Appendix A :   CALCULATION OF WEIGHTED MARGINAL TAX RATES FOR

THE PERSONAL SECTOR

The weights required for the calculation of the overall rate of tax for the personal sector are the proportions of the total dividends and bond interest received by the personal sector which accrue to each marginal tax group . For want of information, we have estimated a single set of weights for this sector to be applied to both dividends and interest, and ignored the distinction between bond interest and interest generally.   Even so, it has been necessary to adopt somewhat roundabout and tentative methods.

The main sources available are Personal Income Surveys and Surtax Statistics, both published by the Board of Inland Revenue.   Personal Income Surveys list the income accruing to each total income group, and break this total income into various categories including one for "dividend and interest" income. Surtax Statistics tabulate income by class of income assessed for surtax purposes, but divide this income into only two categories, earned income and investment income.

Adopting "dividend and interest" as defined in Personal Income Surveys as a suitable basis for the calculation of weights, it remains to find a method of assigning values of this variable to marginal tax groups.   We first consider those groups of assessed income which are subject to surtax.   Since rates of taxation are known, it is enough to assign values of dividend and interest to ranges of assessed taxable income.   Suppose now that a correspondence is given between groups of assessed income and groups of total income.   The method adopted is then to calculate for each total income group the proportion of total investment income arising from dividend and interest receipts, and to apply this

proportion to the total investment income of the corresponding assessed income group in order to estimate the dividend and interest income of the latter.

The assignment of total income groups to assessed income groups has been based on the Pareto distribution. If the logarithm of income is plotted against the logarithm of the cumulative number of persons having incomes in excess of a given level, the plot of each set of grouped data - total income and assessed income- lies approximately on a straight line. Treating the fitted straight lines as cumulative distributions of the ungrouped data, and assuming that larger total incomes correspond to larger assessed incomes, one can assign to each assessed income a corresponding total income, namely that which is exceeded in the same number of cases. The assignment of total to assessed income groups involves a further arbitrary element ; usually the assignment has been based on the number of incomes at the midpoint of each assessed income group. For example, in 1966/67 an assessed income of £2,500 was estimated to be equivalent to a total income of £3,800, so that the £2,000-£3,000 assessed income group was deemed to receive dividends and interest in the same proportion to its total investment income as the £3,000-£4,000 total income group.

Having derived estimates for each surtax group, the remainder of total dividends and interest received by the personal sector has been assigned to standard rate taxpayers. When expressed in terms of proportions, the resulting distribution defines the weights which we require.

This approach was adopted in the years for which both Surtax Statistics and Personal Income Surveys are available, namely 1937/38, 1949/50, 1954/55, 1959/60 and from 1963/64 onwards. It remained to derive weights

for the period preceding 1937/38, and for the years between Surveys in the

period 1937/38 to 1969/70. For the post-war years we merely interpolated

linearly on a graph of weights against time, making adjustments where changes

in the tax system implied movements of taxpayers among assessed income

groups. For the period preceding 1937/38 and for the war years we could find few

relevant data and no studies of the distribution of share ownership among

income groups. Nevertheless, we tried to make reasonable guesses of the weights

for each income group, using the scant evidence available. This evidence consists

largely of studies, undertaken by pioneers in national income accounting, which

comment on the changing distribution and composition of wealth and income

(3, 8, 9, 31). Also the study of Tait (32) provides a useful series giving the

composition of wealth portfolios in the estates of three wealth groups in the UK

during the period 1920-1960. Our estimates of the resulting weights are given in

Table 2 below.

TABLE 2 PERSONAL SECTOR : WEIGHTS FOR EACH INCOME GROUP

	1919/20	1920/21	1921/22	1922/23	1923/24	1924/25	1925/26	1926/27	1927/28	1928/29	1929/30	1930/31	1931/32	1932/33
Non-Surtax Group	.428	.439	.451	.453	.445	.441	.442	.43?	.444	.428	.434	.442	.459	.465
2,000 - 2,500	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.056	.055	.053
2,501 - 3,000	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.046	.045	.043
3,001 - 4,000	.070	.070	.070	.070	.070	.070	.069	.069	.069	.069	.069	.069	.069	.067
4,001 - 5,000	.045	.046	.046	.048	.049	.050	.050	.049	.050	.050	.051	.049	.048	.047
5,001 - 6,000	.035	.036	.037	.037	.037	.038	.038	.038	.038	.038	.039	.038	.037	.036
6,001 - 7,000	.0265	.027	.027	.027	.028	.028	.028	.027	.028	.028	.0285	.0275	.027	.0265
7,001 - 8,000	.0265	.027	.027	.027	.028	.028	.028	.0275	.028	.028	.0285	.0275	.027	.0265
8,000 - 10,000	.035	.035	.036	.036	.037	.037	.037	.035	.037	.037	.038	.036	.035	.035
10,001 - 12,000	.030	.029	.028	.026	.027	.028	.028	.029	.027	.029	.028	.027	.027	.028
12,001 - 15,000	.031	.029	.028	.027	.028	.029	.029	.030	.028	.030	.028	.027	.027	.028
15,001 - 20,000	.033	.032	.030	.029	.031	.031	.031	.033	.031	.033	.031	.030	.029	.030
20,001 - 30,000	)	.050	.050	.050	.050	.051	.050	.055	.050	.055	.045	.045	.040	.040
30,001 - 50,000	) .14	) .080	.070	.070	.070	.070	.070	.080	.070	.075	.08	.08	.035	.035
50,001 +	)	)											.040	.040

	1933/34	1934/35	1935/36	1936/37	1937/38	1938/39	1939/40	1940/41	1941/42	1942/43	1943/44	1944/45	1945/46	1946/47
Non-Surtax Group	.459	.446	.435	.420	.436058	.440	.447	.448	.449	.451	.452	.453	.472	.495
2,000 - 2,501	.054	.055	.055	.055	.054802	.055	.053	.052	.052	.051	.051	.050	.050	.049
2,501 - 3,000	.044	.045	.045	.045	.045238	.045	.044	.044	.044	.044	.044	.044	.044	.044
3,001 - 4,000	.068	.069	.070	.070	.069057	.069	.068	.068	.068	.068	.068	.068	.068	.067
4,001 - 5,000	.048	.049	.049	.051	.051044	.050	.050	.050	.050	.050	.050	.050	.050	.049
5,001 - 6,000	.037	.038	.038	.040	.039133	.040	.040	.040	.040	.040	.040	.040	.040	.037
6,001 - 7,000	.027	.0275	.028	.029	.028300	.0275	.275	.0275	.0275	.0275	.0275	.0275	.026	.026
7,001 - 8,000	.027	.0275	.028	.029	.028300	.0275	.0275	.0275	.0275	.0275	.0275	.0275	.026	.026
8,001 - 10,000	.035	.036	.036	.038	.037987	.038	.038	.038	.038	.038	.038	.038	.038	.037
10,001 - 12,000	.028	.028	.029	.029	) .060607	.030	.035	.035	.035	.034	.033	.033	.030	.030
12,001 - 15,000	.028	.028	.029	.030	)	.030	.035	.035	.034	.034	.034	.034	.032	.030
15,001 - 20,000	.030	.031	.033	.034	.033114	.033	.035	.035	.035	.035	.035	.035	.032	.030
20,001 - 30,000	.040	.040	.045	.045	.034074	.04	)							
30,001 - 50,000	.035	.040	.040	.045	.027599	) .075	) .10	.10	.10	.10	.10	.10	.09	.08
50,001 +	.040	.040	.040	.040	.054679	)	)							

TABLE 2 (cont'd)   PERSONAL SECTOR : WEIGHTS FOR EACH INCOME GROUP

	1947/48	1948/49	1949/50	1950/51	1951/52	1952/53	1953/54	1954/55	1955/56	1956/57	1957/58	1958/59	1959/60	1960/61
Non-Surtax Group	.505	.511	.52258	.517	.514	.508	.501	.49818	.490	.485	.474	.468	.4601	.417
2,000 - 2,500	.049	.049	.48232	.048	.048	.048	.049	.048745	.048	.045	.042	.040	.03914	.050
2,001 - 3,000	.044	.044	.043224	.044	.045	.046	.047	.047599	.048	.049	.050	.050	.05062	.060
3,001 - 4,000	.067	.067	.066794	.069	.071	.074	.075	.076672	.080	.080	.082	.083	.08397	.090
4,001 - 5,000	.049	.048	.048423	.049	.050	.052	.054	.055391	.058	.060	.061	.062	.06332	.065
5,001 - 6,000	.037	.036	.036371	.037	.037	.039	.040	.041382	.042	.043	.044	.044	.04560	.0475
6,001 - 7,000	.026	.026	.025801	.0255	.0265	.027	.028	.029236	.030	.030	.031	.0315	.03238	.0335
7,001 - 8,000	.026	.026	.025801	.0255	.0265	.027	.028	.029236	.030	.030	1031	.0315	.03238	.0335
8,001 - 10,000	.037	.036	.034631	.035	.036	.036	.0375	.037682	.04	.039	.040	.041	.04185	.0425
10,001 - 12,000	.030	.029	.027401	.0275	.028	.0275	.0275	.026410	.026	.027	.028	.028	.02803	.029
12,001 - 15,000	.030	.029	.027254	.0275	.0275	.0275	.0275	.027468	.027	.029	.030	.030	.02989	.032
15,001 - 20,000	.030	.029	.027222	.0275	.0275	.0275	.0275	.026864	.027	.028	.029	.029	.02873	.030
20,001 - 30,000	)													
30,001 - 50,000	) .070	.070	.066253	.065	.063	.061	.058	.055123	.054	.055	.057	.062	.06391	.070
50,001 +	)													

	1961/62	1962/63	1963/64	1964/65	1965/66	1966/67	1967/68	1968/69	1969/70
Non-Surtax Group	.3975	.385	.3756	.3643	.313261	.380420	.3334	.3297	.3904
2,000 - 2,501	.060	.060	.0644	.05892	.051514	.064206	.0768	.07680	-
2,501 - 3,000	.060	.061	.0606	.05819	.052674	.056619	.0648	.06844	.07262
3,001 - 4,000	.092	.095	.0951	.09259	.093275	.094816	.1019	.10110	.1104
4,001 - 5,000	.066	.067	.0676	.06692	.073682	.066007	.0693	.07313	.07232
5,001 - 6,000	.048	.049	.0494	.05146	.056427	.049914	.0508	.05351	.05424
6,001 - 7,000	.0335	.034	.0339	.03550	.039671	.033503	.0366	.036205	.03523
7,001 - 8,000	.0335	.034	.0339	.03550	.039671	.033503	.0366	.036205	.03523
8,001 - 10,000	.044	.045	.0461	.04809	.055826	.046792	.0479	.04978	.05033
10,001 - 12,000	.030	.031	.0317	.03465	.037696	.031582	.0331	.03336	.03350
12,001 - 15,000	.032	.033	.0330	.03574	.040927	.033329	.0332	.03371	.03492
15,001 - 20,000	.031	.031	.0319	.03376	.041765	.032019	.0319	.03206	.03332
20,001 - 30,000	)								
30,001 - 50,000	) .0725	.075	.0770	.08424	.103335	.077252	.0834	.07577	.07735
50,001 +	)								

TABLE 3(a)   APPENDIX B : THE WEIGHTS OF SECTORS

SHARES : THE WEIGHTS ASSIGNED TO EACH SECTOR

| YEARS | S E C T O R S | | | |
	PERSONS	LIFE INSURANCE	PENSION FUNDS	CHARITIES
1919/20	1.000	-	-	-
1920/21	1.000	-	-	-
1921/22	1.000	-	-	-
1922/23	1.000	-	-	-
1923/24	1.000	-	-	-
1924/25	1.000	-	-	-
1925/26	.995	.005	-	-
1926/27	.994	.006	-	-
1927/28	.992	.008	-	-
1928/29	.990	.010	-	-
1929/30	.988	.012	-	-
1930/31	.986	.014	-	-
1931/32	.983	.017	-	-
1932/33	.982	.018	-	-
1933/34	.981	.019	-	-
1934/35	.979	.022	-	-
1935/36	.977	.023	-	-
1936/37	.975	.025	-	-
1937/38	.973	.027	-	-
1938/39	.971	.029	-	-
1939/40	.969	.031	-	-
1940/41	.970	.030	-	-
1941/42	.970	.030	-	-
1942/43	.970	.030	-	-
1943/44	.970	.030	-	-
1944/45	.970	.030	-	-
1945/46	.970	.030	-	-

TABLE 3(a) (Cont'd)

YEARS	PERSONS	LIFE INSURANCE	PENSION FUNDS	CHARITIES
1946/47	.9675	.0325	-	-
1947/48	.9640	.036	-	-
1948/49	.960	.040	-	-
1949/50	.957	.043	-	-
1950/51	.945	.045	.005	.005
1951/52	.939	.048	.007	.006
1952/53	.933	.051	.009	.007
1953/54	.925	.055	.012	.008
1954/55	.913	.060	.018	.009
1955/56	.895	.069	.024	.012
1956/57	.878	.077	.029	.016
1957/58	.863	.084	.034	.019
1958/59	.850	.090	.040	.020
1959/60	.838	.095	.047	.020
1960/61	.830	.098	.052	.020
1961/62	.823	.099	.058	.020
1962/63	.819	.100	.060	.021
1963/64	.809	.106	.064	.021
1964/65	.794	.111	.072	.023
1965/66	.777	.114	.085	.024
1966/67	.771	.118	.084	.027
1967/68	.762	.120	.090	.028
1968/69	.760	.120	.091	.029
1969/70	.758	.120	.092	.030

TABLE 3(b)

BONDS : THE WEIGHTS ASSIGNED TO EACH SECTOR

	UNTAXED	PERSONAL	LIFE INSURANCE	BUILDING SOCIETIES
1919/20 :	.1500	.8010	.0490	-
1920/21 :	.1500	.8040	.0460	-
1921/22 :	.1500	.8060	.0440	-
1922/23 :	.1600	.7980	.0420	-
1923/24 :	.1600	.7980	.0420	-
1924/25 :	.1600	.8000	.0400	-
1925/26 :	.1600	.8025	.0375	-
1926/27 :	.1700	.7950	.0350	-
1927/28 :	.1700	.7975	.03250	-
1928/29 :	.1700	.8000	.0300	-
1929/30 :	.1700	.8000	.0300	-
1930/31 :	.1800	.7850	.0350	-
1931/32 :	.1800	.7850	.0350	-
1932/33 :	.1800	.7800	.0400	-
1933/34 :	.1800	.7750	.0450	-
1934/35 :	.1900	.7600	.0500	-
1935/36 :	.1900	.7550	.0550	-
1936/37 :	.1900	.7500	.0600	-
1937/38 :	.1900	.7450	.0650	-
1938/39 :	.1900	.7370	.0650	.0080
1939/40 :	.2000	.7250	.0670	.0080
1940/41 :	.2000	.7240	.0680	.0080
1941/42 :	.2000	.7230	.0700	.0070
1942/43 :	.2500	.6730	.0700	.0070
1943/44 :	.2500	.6680	.0750	.0070
1944/45 :	.2800	.6380	.0750	.0070
1945/46 :	.3000	.6168	.0762	.0070
1946/47 :	.3300	.5856	.0784	.0060

TABLE 3(b) (cont'd)

	UNTAXED	PERSONAL	LIFE INSURANCE	BUILDING SOCIETIES
1947/48 :	.3400	.5822	.07180	.0060
1948/49 :	.3500	.5648	.0802	.0050
1949/50 :	.3500	.5650	.0800	.0050
1950/51 :	.3600	.5563	.0777	.0060
1951/52 :	.3700	.5490	.0750	.0060
1952/53 :	.3700	.5485	.0750	.0065
1953/54 :	.3800	.5431	.0700	.0069
1954/55 :	.3800	.5426	.0700	.0074
1955/56 :	.3900	.5350	.0674	.0076
1956/57 :	.3854	.5429	.0638	.0079
1957/58 :	.4104	.5078	.0744	.0074
1958/59 :	.4027	.5099	.0783	.0091
1959/60 :	.4384	.4713	.0800	.0103
1960/61 :	.4476	.4614	.0803	.0107
1961/62 :	.4182	.4845	.0852	.0121
1962/63 :	.4479	.4364	.1008	.0149
1963/64 :	.4555	.4249	.1045	.0151
1964/65 :	.4607	.4111	.1126	.0156
1965/66 :	.4642	.4008	.1137	.0213
1966/67 :	.4622	.4057	.1008	.0233
1967/68 :	.4573	.3883	.1287	.0257
1968/69 :	.4719	.3607	.1410	.0264
1969/70 :	.4258	.3882	.1506	.0354

TABLE 4   APPENDIX C : TAX RATES

ESTIMATED MARGINAL TAX RATES FOR EACH SECTOR : Percentages

| YEAR | DIVIDENDS | | BOND | INTEREST | |
	PERSONAL SECTOR (weighted average)	LIFE INSURANCE SECTOR	PERSONAL SECTOR (weighted average)	LIFE INSURANCE SECTOR	BUILDING SOCIETY SECTOR
1919/20	39. 29	-	31. 47	1. 00	-
1920/21	41. 10	-	33. 04	0. 94	-
1921/22	40. 75	-	32. 84	0. 90	-
1922/23	35. 68	-	28. 47	0. 70	-
1923/24	33. 36	-	26. 62	0. 62	-
1924/25	33. 44	-	26. 75	0. 59	-
1925/26	29. 13	13. 04	23. 38	0. 49	-
1926/27	29. 68	13. 04	23. 60	0. 46	-
1927/28	29. 26	13. 04	23. 33	0. 42	-
1928/29	29. 68	13. 04	23. 74	0. 39	-
1929/30	31. 62	13. 04	25. 30	0. 39	-
1930/31	35. 04	14. 83	27. 51	0. 52	-
1931/32	37. 05	16. 66	29. 08	0. 58	-
1932/33	37. 04	16. 66	28. 89	0. 67	-
1933/34	37. 12	16. 66	28. 77	0. 75	-
1934/35	34. 95	14. 83	26. 56	0. 74	-
1935/36	35. 29	14. 83	26. 64	0. 82	-
1936/37	36. 96	15. 74	27. 72	0. 94	-
1937/38	37. 73	16. 66	27. 81	1. 08	-
1938/39	42. 35	18. 53	31. 21	1. 20	0. 08
1939/40	51. 32	24. 41	37. 21	1. 64	0. 10
1940/41	58. 81	24. 69	42. 58	1. 68	0. 17
1941/42	66. 36	21. 87	47. 98	1. 53	0. 20
1942/43	66. 31	21. 87	44. 63	1. 53	0. 20
1943/44	66. 27	21. 87	44. 27	1. 64	0. 20

TABLE 4 (cont'd)

| YEAR | DIVIDENDS | | BOND | INTEREST | |
	PERSONAL SECTOR (weighted average)	LIFE INSURANCE SECTOR	PERSONAL SECTOR (weighted average)	LIFE INSURANCE SECTOR	BUILDING SOCIETY SECTOR
1944/45	66.26	21.87	42.27	1.64	0.21
1945/46	65.26	21.87	40.25	1.67	0.21
1946/47	60.81	23.78	35.61	1.86	0.14
1947/48	76.20	23.78	44.36	1.71	0.14
1948/49	60.06	23.78	33.92	1.91	0.11
1949/50	59.55	23.78	33.65	1.90	0.13
1950/51	59.57	23.78	33.14	1.85	0.15
1951/52	62.02	22.83	34.05	1.71	0.16
1952/53	62.12	22.83	34.07	1.71	0.17
1953/54	59.68	23.78	32.41	1.66	0.17
1954/55	59.65	23.78	32.37	1.66	0.19
1955/56	57.33	24.69	30.67	1.66	0.18
1956/57	57.58	24.69	31.25	1.58	0.21
1957/58	57.95	24.69	29.42	1.84	0.20
1958/59	58.33	24.69	29.74	1.93	0.25
1959/60	54.84	26.03	25.85	2.08	0.26
1960/61	55.87	26.03	25.77	2.09	0.28
1961/62	56.31	26.03	27.28	2.22	0.33
1962/63	56.71	26.03	24.73	2.62	0.41
1963/64	56.91	26.03	24.17	2.72	0.41
1964/65	57.78	26.03	23.74	2.93	0.45
1965/66	67.01	25.14	26.86	2.86	0.66
1966/67	59.44	25.14	24.12	2.73	0.73
1967/68	60.39	25.14	23.44	3.23	0.80
1968/69	60.38	25.14	21.78	3.54	0.85
1969/70	60.00	25.14	23.29	3.79	1.14

TABLE 5

ACTUAL RATES OF SUPERTAX (1918 to 1928/29) AND SURTAX (1928/29 -1970/71)

YEARS	1918/19 -1919/10	1920/21 -1924/25	1925/26 -1928/29		1929/30	1930/31 -1937/38	1938/39	1939/40 -1945/46	1946/47 -1950/51	1951/52 -1968/69	1969/70 -1970/71
INCOMES CHARGEABLE	Above £2500 *(1)	Above £2000	Above £2000		Above £2000	Above £2000	Above £2000	Above £2000	Above £2000 *(3)	Above £2000 *(4)	Above £2500 (2)*
SLICE OF INCOME:											
£2000 and under	Nil	Nil	Nil		Nil	Nil	Nil	Nil	Nil	Nil	Nil
£ 2,001 - £ 2,500	5.00	7.50	3.75		5.00	5.50	6.25	10.00	10.00	10.00	10.00
£ 2,501 - £ 3,000	7.50	10.00	5.00		6.25	6.875	7.50	11.25	12.50	12.50	12.50
£ 3,001 - £ 4,000	10.00	12.50	7.50		10.00	11.00	12.50	16.25	17.50	17.50	17.50
£ 4,001 - £ 5,000	12.50	15.00	11.25		15.00	16.50	17.50	21.25	22.50	22.50	22.50
£ 5,001 - £ 6,000	15.00	17.50	15.00		17.50	19.20	21.25	25.00	27.50	27.50	27.50
£ 6,001 - £ 7,000	17.50	20.00	17.50		20.00	22.00	25.00	28.75	32.50	32.50	32.50
£ 7,001 - £ 8,000	17.50	22.50	17.50		20.00	22.00	25.00	28.75	32.50	32.50	32.50
£ 8,001 - £10,000	20.00	25.00	20.00		25.00	27.50	31.25	35.00	37.50	37.50	37.50
£10,001 - £12,000	22.50	25.00	22.50		27.50	30.25	37.50	41.25	42.50	42.50	42.50
£12,001 - £15,000	22.50	25.00	22.50		27.50	30.25	37.50	41.25	47.50	47.50	47.50
£15,001 - £20,000	22.50	25.00	25.00		30.00	33.00	42.50	45.00	50.00	50.00	50.00
£20,001 - £30,000	22.50	27.50	27.50		32.50	35.75	45.00	47.50	52.50	50.00	50.00
£30,001 - £50,000	22.50	30.00	30.00		35.00	38.75	47.50	47.50	52.50	50.00	50.00
Above £50,000	22.50	30.00	30.00		37.50	41.25	47.50	47.50	52.50	50.00	50.00

NOTES: (see over page)

TABLE 5 (cont'd)

Notes *

1.   If surtaxable income does not exceed £2,500 then all that income is exempt from surtax ; but if surtaxable income exceeds £2,500, then all the assessed income above £2,000 is liable to surtax at the rates specified.

2.   Where surtaxable income does not exceed £2,500 no surtax is charged. Where surtax income is in the range £2,500-£2,681 the surtax charged is reduced to an amount equal to 40 % of the excess over £2,500. Where surtax income exceeds £2,681 surtax is charged on the excess over £2,000 at the rates indicated.

3.   In addition to the rates set out in the Table, A Special Contribution was imposed for the year 1947-48 on all individuals whose total income as defined for surtax purposes exceeded £250. The Contribution, payable on 1.1.49, was levied at 10 % on the slice of investment income £250-500, at 20 % on £500-1,000, at 30 % on £1,000-2,000, at 40 % on £2,000-£5,000 and at 50% on the slice over £5,000.

4.   An additional Surcharge of 10 % of surtax liabilities was imposed for 1965/66 and became payable on 1.9.67.

TABLE 6

BUILDING SOCIETY AGREED COMPOSITE RATES - 1938/39 - 1969/70

Percentages

1938/39 :	10. 18	1954/55 :	25. 42
1939/40 :	12. 96	1955/56 :	24. 17
1940/41 :	20. 77	1956/57 :	26. 67
1941/42 :	28. 75	1957/58 :	27. 50
1942/43 :	28. 75	1958/59 :	27. 92
1943/44 :	28. 75	1959/60 :	25. 62
1944/45 :	30. 00	1960/61 :	26. 67
1945/46 :	30. 00	1961/62 :	27. 08
1946/47 :	23. 75	1962/63 :	27. 50
1947/48 :	22. 50	1963/64 :	27. 08
1948/49 :	21. 25	1964/65 :	29. 17
1949/50 :	25. 83	1965/66 :	30. 83
1950/51 :	24. 58	1966/67 :	31. 25
1951/52 :	26. 25	1967/68 :	31. 25
1952/53 :	25. 83	1968/69 :	32. 08
1953/54 :	24. 17	1969/70 :	32. 25

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