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# The Burden of Taxation

The 'burden of taxation' is a representation of the share of income – national or individual – that is paid in tax. It can be measured in a number of ways, and this paper looks at a variety of datasets that provide different perspectives.

This paper updates, in a revised format, Research Paper 02/43 from June 2002.

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## Summary of main points

- The burden of taxation expresses the proportion of either national or individual income paid in taxes. There are a number of different definitions of the tax burden, and this research paper summarises information from a range of sources.
- Official projections suggest that, on unchanged policies, the burden of taxation (defined as net taxes and social security contributions) will be around 38% of GDP in the middle of this decade. This compares with a peak of around 39% in 1984/85 and a recent low of 33% in 1993/94 (see section II for details).
- As measured by the national accounts, the tax burden in 2003/04 is forecast to be 36% of GDP. At the start of the twentieth century the ratio was around 10% (see section III for details).
- In 2000 the aggregate tax burden in the United Kingdom was below the average for the EU15. However, it was higher than that in several major non-European countries including Australia, Japan and the United States (see section VI for details).
- Households with the top fifth of disposable incomes now pay a higher proportion of all household taxes than in 1979. However, as the share of gross income received by this group has also increased, the burden of tax they face has fallen.
- Taxes (direct and indirect) paid by the fifth of households with the lowest disposable incomes now represent a higher proportion of their gross income than in 1979. The opposite is true for all other households (see section V for details).
- Data for the hypothetical working households considered here suggest increases in real take home pay over the period from 1991/92 to 2003/04. Lower-paid households with children have benefited significantly from the Working Families' Tax Credit and, from 2003/04, Working Tax Credit and Child Tax Credit.
- Most of the hypothetical households considered will see their burden of direct taxes lower at the end of this period than at the beginning, although this is not true of married couples without children (see section VI for details).

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## I Introduction

The ‘burden of taxation’ is an expression of the proportion of income which is paid in taxes. A tax burden is simply a ratio of tax paid to income received. Such a calculation can be made at the national level, using an aggregate measure of tax receipts compared with total national income within a given time period, or at the micro level for individuals or families, i.e. the amount of personal/household income paid as tax.

Over time, this ratio may change because of variations in the numerator – the tax take – or the denominator – gross domestic product (GDP) or individual/household income. However, these are not independent of each other – tax take depends on discretionary tax decisions by governments (e.g. rates and/or thresholds, tax enforcement procedures, changes to definitions) as well as overall macroeconomic performance, e.g. GDP growth relative to trend.

Strong growth will generally lead to higher employment levels (and therefore income tax receipts) and greater corporation tax receipts in the aggregate case. In addition, microeconomic factors, such as changes in consumption patterns and the distribution of income, will also have an effect. For example levels of home ownership and the performance of the housing market will influence levels of stamp duty received.

### A. Tax changes since 1997/98

Each year the Budget results in a range of discretionary tax changes which can come into effect immediately or in the future, as was the case of the changes to national insurance contributions (NICs) announced at the time of the 2002 Budget that did not come into effect until 2003/04.

The *Financial Statement and Budget Report*, traditionally known also as the *Red Book*, lists discretionary changes together with estimates of their revenue implications.<sup>1</sup> The table below shows a selection of major tax changes for each year back to 1997/98.<sup>2</sup> Changes for previous years can be found in earlier editions of this paper:

Year	Budget	Change
2003/04	Apr 2003	Thresholds for starting & basic income tax rates frozen Duties on spirits, cider, sparkling wines frozen Stamp duty frozen Petroleum Revenue Tax (PRT) abolished for new business
2003/04	Apr 2002	Rates of national insurance contributions (NICs) increased by 1% for employees, employers & the self-employed

<sup>1</sup> For example, see HM Treasury, *Economic & Fiscal Strategy Report and Financial Statement & Budget Report 2003* (or *Red Book*), 9 April 2003 [HC 500 2002/03], table A1, pp184-185

<sup>2</sup> For details of current direct tax rates and allowances, see Library Research Paper 03/35 *Direct taxes: rates and allowances 2003-04*, 10 April 2003

<b>Year</b>	<b>Budget</b>	<b>Change</b>
2003/04 (cont.)	Apr 2002	Income tax personal allowance, national insurance primary & secondary thresholds frozen Age-related income tax allowances increased above inflation Working Tax Credit (WTC) & Child Tax Credit (CTC) to replace existing credits (Working Families' Tax Credit, Disabled Person's Tax Credit, Children's Tax Credit & New Deal Employment Credit for over 50s) and income-related support for children included in Income Support/Jobseeker's Allowance
2002/03	Apr 2002	Increases in age-related tax allowances Surcharges on North Sea oil profits Petrol and alcohol duties frozen
2001/02	Mar 2001	Increase in value of WFTC (from June 2001)/CTC (from April 2001) Over-indexation of starting rate band of income tax Cuts in some fuel duties
	Mar 1999	New Children's Tax Credit Climate change levy offset by reduction in employer NICs
2000/01	Mar 2000	Duty escalators abolished, tobacco duties real terms increase of 5% Higher rates of stamp duty on property transfers increased
	Mar 1999	Mortgage interest tax relief abolished Phased alignment of starting point for employee NICs with personal allowance and consequential increases in upper earnings limits Basic rate of income tax reduced to 22% Married couple's allowance abolished for those born after 1935
1999/00	Mar 1999	10p starting rate of income tax Higher rates of stamp duty on property transfers increased Advance timing of increases in tobacco duties Increase in insurance premium tax from 4% to 5%
	Mar 1998	Advanced corporation tax abolished and quarterly corporation tax payments introduced Corporation tax reduced from 31% to 30% Married couple's allowance (MCA) restricted to 10% Working Families' Tax Credit (WFTC) to replace Family Credit Entry fee for employee NICs abolished
1998/99	Mar 1998	Higher rates of stamp duty on property transfers increased Advance timing of increases in fuel duties
	Jul 1997	Mortgage tax relief restricted to 10%
1997/98	Jul 1997	VAT on domestic fuel and power reduced to 5% Duty escalators raised to 6% for road fuels and 5% for tobacco Windfall tax on privatised utilities Higher rates of stamp duty on property transfers introduced Corporation tax reduced from 33% to 31% Payable tax credits on dividends abolished
	Nov 1996	Basic rate of income tax reduced from 24% to 23% Phased withdrawal of tax relief on profit related pay Air passenger duty doubled Increase in insurance premium tax from 2½% to 4% Income tax personal allowance over-indexed
	Nov 1995	Employer NICs reduced

## II The UK tax burden: public finances basis

There are two main ways of expressing the UK's tax burden ratio: the public finances basis, preferred by the Treasury and used in Budget documentation, and the national accounts basis, based on National Statistics<sup>3</sup> data, the difference between them being accounting practice.

For public finances purposes the Treasury presents the tax burden in terms of the aggregate measure of 'net taxes and social security contributions' (NTSSC) expressed as a proportion of GDP. NTSSC is a measure of net cash payments to UK government, and includes the majority of revenues: all Inland Revenue and Customs & Excise tax receipts, vehicle excise duties, oil royalties, business rates, council tax and some 'other taxes' and royalties. This differs from 'Public Sector Current Receipts' (PSCR or 'current receipts') which forms the numerator for the National Accounts measure of the tax burden (see section III) in number of ways:

- it is a cash measure, whereas in the National Accounts some revenues are on an accruals basis, i.e. revenues are shown against the period in which the liability arises and not when payment is actually made. NTSSC therefore excludes accruals adjustments (on income tax, NICs and VAT) which are made for the National Accounts measure;
- transfers to the EU from own revenue<sup>4</sup> are subtracted from the NTSSC measure to arrive at the national accounts measure;
- taxes paid by public corporations which are included in NTSSC are subtracted for the national accounts as they have no impact on overall public sector receipts;
- NTSSC excludes interest and other non-tax receipts, apart from oil royalties which are included, but treated as rent in the national accounts;
- the treatment of tax credits: in the public finances measure, receipts are measured net of certain tax credits that the national accounts measure treats as public expenditure, for example Working Families' Tax Credit and Disabled Persons Tax Credit from October 1999 until April 2003.<sup>5</sup> The accounting for tax credits is technically complex, and is explained in detail in technical note 2 (see box, page 11).

Chart 1 on page 10 shows the tax burden on the public finances basis since 1978/79. This series is revised and printed in each Budget *Red Book* – these latest figures from the 2003 Budget include an estimate for 2002/03 (based on expected receipts and GDP), while figures for 2003/04 through to 2007/08 are projections, and are therefore subject to revision.

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<sup>3</sup> The official UK statistical office.

<sup>4</sup> That is revenue raised by the UK Government for the EU, but retained by the UK Government for earmarked EU expenditure

<sup>5</sup> Also, mortgage tax relief (1991/92 until 2000), life assurance premium relief and private medical insurance relief for the over 60s (1994/95 until 1997 Budget); note that Family Credit (for which the WFTC was a partial replacement) was not treated as a tax credit.

As chart 1 shows, from 1978/79 to 1982/83 the tax burden rose sharply, reflecting recession and attempts to reduce the public sector deficit. The tax burden peaked at 38.9% of GDP in 1982/83, a period when revenues were also boosted by receipts from North Sea oil production. However, these declined rapidly after world oil prices fell sharply in 1986. The late 1980s saw a period of rapid economic growth and strong public finances which allowed the then government to announce a series of tax reductions, most notably in the 1988 Budget when the basic rate of income tax was reduced to 25% (from 27%), higher rates of income tax above 40% were abolished and allowances were increased by more than indexation. The tax burden fell steadily to just over 36.2% of GDP by the end of the decade.

The recession of the early 1990s saw real GDP in 1992/93 fall below its 1989/90 level, and the tax burden fell sharply largely due to cyclical factors (see technical note 1 below). A series of phased tax increases were announced in the two budgets of 1993 aimed at putting the public finances back on a sustainable basis. Further increases occurred before the tax burden ratio peaked at 37.4% in 2000/01, reflecting factors such as the abolition of payable tax credits on dividends and the continuing impact of the escalators for road fuel and tobacco duties.<sup>6</sup>

The tax burden is expected to fall back to an estimated 35.6% in 2002/03 before projections indicate an increase to 38.2% by 2007/08. These rises reflect in part the percentage point increase in employer, employee and self-employed national insurance contributions that came into effect in April 2003, and the economy returning to trend. In historical terms the 2007/08 figure is below that for the period 1981/92 to 1984/85.

These projections of the tax burden are lower for each year than forecast at the time of the 2002 Budget or Pre-Budget Report in November 2002.

### **Technical note 1: Taxation & the cycle**

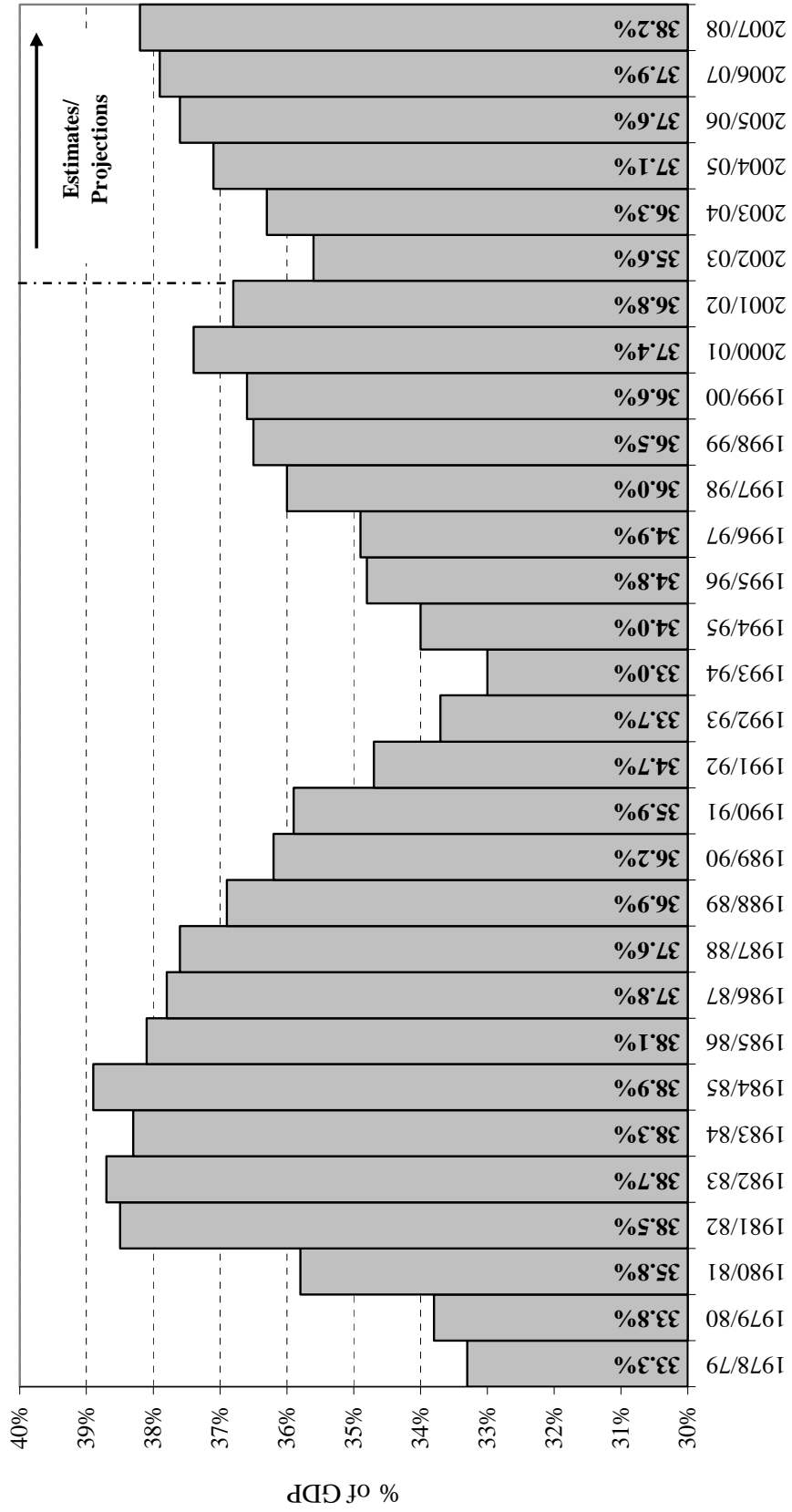
Revenues from some taxes, most notably income tax and corporation tax, vary disproportionately with changes in GDP. Thus economic growth above the long-term trend is associated with a rising tax burden and vice versa. Estimates published by the Treasury in 1999 suggested that the long-term effect of a 1% rise in output relative to trend could be an approximate 0.2% increase in the **ratio** of total tax receipts to GDP, with no initial impact in the first year. This compares with an estimate of 0.3% published by the Treasury in a similar study in 1995. While they can be significant, cyclical factors account for only a small proportion of the variation in the tax burden over the last 20 years.

[Source: HM Treasury, *Fiscal Policy: Public Finances and the Cycle*, March 1999, p26]

<sup>6</sup> Following the November 1999 Pre-Budget Report escalators (commitments to increase duties in real terms by a given percentage per annum) were withdrawn, and replaced with 'appropriate' duties set at the time of the Budget.



**Chart 1: Net taxes & social security contributions,  
1978/79 to 2007/8 (as % of GDP)**



Source: HM Treasury, *Budget 2003 Red Book*, April 2003 [HC500 2002/03], Tables C25, p280 & C9.

The historic series of the public finances measure of the tax burden shown in chart 1 has been revised to meet the new OECD classification of personal tax credits, as outlined in the technical note below:

### Technical note 2: Accounting treatment of tax credits

The Treasury and National Statistics have different accounting approaches to tax credits:

The two new credits introduced in April 2003, Working Tax Credit (WTC) and Child Tax Credit (CTC), will be treated as negative taxation in the national accounts *unless credits exceed the tax liability of the household* in which case the credits will be treated as public expenditure. This is consistent with guidance from the OECD and is likely to be adopted by other international bodies.

Working Families Tax Credit (WFTC) and Disabled Person's Tax Credit, which operated between October 1999 and April 2003, were classed as public expenditure in the national accounts and their classification here will not change. However, the 2002 Budget *Red Book* stated that the Government would be adopting the OECD approach and applying it to WFTC and other credits.

As a result, the 'net taxes and social security contributions' measure (which forms the numerator for the Public Finances approach to the tax burden) was revised to take this into account. The 2002 *Red Book* stated the decision regarding tax credits would result in an additional 0.5% to the tax burden ratio on figures published previously for years from 1999-2000 onwards.<sup>7</sup> It should be noted that all other fiscal aggregates will continue to be measured on a national accounts basis.

Treasury estimates of the allocation of working and child tax credits 'spending' between negative taxation and public expenditure for 2003/04 and 2004/05 are given in the table below:

		2003/04		2004/05	
<i>Working Tax Credit</i>	Negative taxation	0.6	0.7		
	Public Expenditure	2.4	2.6		
<i>Child Tax Credit</i>	Negative taxation	2.6	3.0		
	Public Expenditure	5.5	8.5		

Source: HC Deb 16 May 2003 c489W

<sup>7</sup> HM Treasury, *Budget 2002 Red Book*, [HC 592 2001-02], Box C2, p216

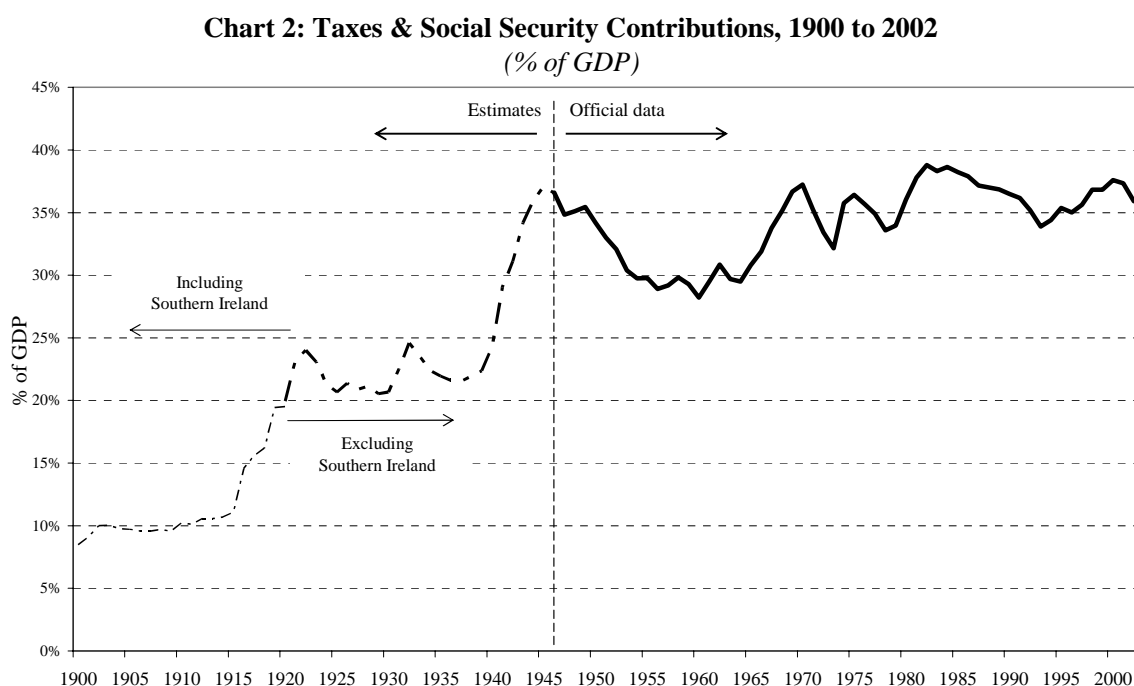
### III The UK tax burden: national accounts basis

National Statistics publishes the national accounts with the aim of providing statistics on the state of the UK economy. The national accounts include details of the taxes paid by UK residents and received by government, and expressing this measure of tax as a ratio of GDP provides an alternative measure of the aggregate tax burden.

An advantage of this measure of the tax burden is that broadly consistent data are available over a longer period. However, the main disadvantage is that, unlike the public finances, no forecasts or projections are published for this measure. Being based on data that meet internationally recognised definitions, the national accounts measure can also be used to compare tax burdens in different countries.

#### A. Historical perspective

Chart 2 illustrates this measure of the tax burden for each calendar year since 1900. The data for 1948 onwards are derived from official figures, with figures for earlier years being either estimated or from other sources.<sup>8</sup>



As this shows, the tax burden has gone from around 10% in the early 1900s to ratios of between 34% and 39% over the last two decades. Allowing for shorter-term cyclical factors, a major influence on the tax burden is the overall level of public spending, and the chart clearly outlines the financial demands of the two world wars and the upward

<sup>8</sup> For supporting data and details of sources, see appendix 2.

pressure on expenditure (and therefore the tax burden) from the growth of the welfare state – education, health, social security and social housing.

## B. Breakdown by tax category

The national accounts measure of net taxes and social contributions includes taxes paid to central and local government and the European Union (in the form of ‘own resources’) and can be broken down into four broad categories of taxation:

- taxes on production and imports – this includes most of the main indirect taxes such as VAT and excise duties;
- taxes on income, wealth, etc. – this includes most of the main direct taxes such as income tax, capital gains tax and corporation tax;
- taxes on capital – mainly inheritance tax;
- social contributions – national insurance contributions.

Table 1 shows data broken down in this way for each financial year since 1990/91. Forecast data from the April 2003 Budget for 2002/03 through to 2004/05 are included, as these are broadly comparable with the earlier figures:

**Table 1: Taxes by category (national accounts measure)**

*% of GDP*

Financial Year	Taxes on production & imports (a)		Taxes on income, wealth, etc (b)	Taxes on capital	Social contributions	Total
	Paid to general government	Paid to EU				
1990/91	12.2%	1.1%	16.7%	0.2%	6.2%	36.4%
1991/92	13.4%	0.9%	15.6%	0.2%	6.2%	36.2%
1992/93	13.0%	1.0%	14.5%	0.2%	6.0%	34.7%
1993/94	12.7%	1.0%	13.7%	0.2%	6.1%	33.7%
1994/95	13.1%	0.8%	14.4%	0.2%	6.2%	34.7%
1995/96	13.2%	1.0%	14.9%	0.2%	6.2%	35.5%
1996/97	13.1%	0.9%	15.0%	0.2%	6.1%	35.3%
1997/98	13.5%	0.7%	15.7%	0.2%	6.3%	36.4%
1998/99	13.5%	0.7%	16.1%	0.2%	6.3%	36.8%
1999/00	13.8%	0.6%	16.4%	0.2%	6.2%	37.2%
2000/01	13.7%	0.7%	16.8%	0.2%	6.5%	37.8%
2001/02	13.5%	0.6%	16.3%	0.2%	6.3%	36.9%
2002/03 (c)	13.6%	0.4%	15.5%	0.2%	6.0%	35.7%
2003/04 (c)	13.5%	0.4%	15.4%	0.2%	6.9%	36.4%
2004/05 (c)	13.4%	0.4%	16.4%	0.2%	6.9%	36.9%

Notes: (a) Includes non-domestic rates

(b) Includes domestic rates/community charge/council tax and motor duties paid by households

(c) forecasts based on Budget 2003 *Red Book*, Tables C3, C9, C23 and data from HM Treasury

Source: National Statistics Database (series NZGX, FJWB, NMZL, NMGI, AIIH, GCSU & BKTL)

## IV National tax burdens: international comparisons

The table below shows the national tax burden<sup>9</sup> for OECD countries for a selection of years from 1980 through to 2000, along with provisional data for 2001 where these are available. The table has been ranked from highest to lowest by confirmed 2000 figures which are available for all 30 OECD countries.

**Table 2: Tax Burden in OECD countries \***

*Total tax revenue as % of GDP at market prices*

	1980	1985	1990	1995	1996	1997	1998	1999	2000	2001 (prov.)
Sweden	47.5	48.5	53.6	47.6	49.8	51.2	51.6	52.0	54.2	53.2
Denmark	43.9	47.4	47.1	49.4	49.9	49.8	50.1	51.2	48.8	49.0
Finland	36.2	40.1	44.8	45.0	47.3	46.3	46.1	46.8	46.9	46.3
Belgium	42.4	45.6	43.2	44.6	44.9	45.2	45.8	45.4	45.6	45.3
France	40.6	43.8	43.0	44.0	45.0	45.2	45.1	45.7	45.3	45.4
Austria	39.8	41.9	40.4	41.6	43.5	44.4	44.3	44.1	43.7	45.7
Italy	30.4	34.4	38.9	41.2	42.7	44.2	42.5	43.3	42.0	41.8
Luxembourg	40.2	44.8	40.8	42.0	43.0	40.8	39.8	40.9	41.7	42.4
Netherlands	43.6	42.6	43.0	41.9	41.5	41.9	40.0	41.2	41.4	39.9
Norway	42.7	43.3	41.8	41.5	41.5	42.4	43.4	41.6	40.3	44.9
Czech Republic (a)	..	..	..	40.1	39.3	38.6	38.1	39.2	39.4	39.0
Hungary (a)	..	..	..	42.4	40.7	39.0	38.8	39.1	39.1	38.6
Germany (b)	37.5	37.2	35.7	38.2	37.4	37.0	37.1	37.8	37.9	36.4
Greece	24.2	28.6	29.3	31.7	31.8	33.4	35.6	36.9	37.8	40.8
<b>United Kingdom</b>	<b>35.2</b>	<b>37.7</b>	<b>36.8</b>	<b>34.8</b>	<b>34.8</b>	<b>35.0</b>	<b>36.9</b>	<b>36.4</b>	<b>37.4</b>	<b>37.4</b>
Iceland	29.1	28.3	31.2	31.5	32.7	32.6	34.4	36.9	37.3	34.8
Canada	30.7	32.6	35.9	35.6	35.9	36.8	36.5	35.9	35.8	35.2
Slovak Republic (c)	..	..	..	..	..	..	37.1	35.3	35.8	33.1
Switzerland	28.9	30.2	30.6	33.1	33.9	33.5	34.7	34.5	35.7	34.5
Spain	23.1	27.8	33.2	32.8	32.6	33.5	34.0	35.0	35.2	35.2
New Zealand	32.4	32.9	37.6	37.5	35.4	35.8	34.8	34.9	35.1	34.8
Portugal	24.1	26.6	29.2	32.5	32.3	32.8	33.3	34.1	34.5	..
Poland (a)	..	..	..	39.6	39.4	38.8	37.6	35.2	34.1	..
Turkey	17.9	15.4	20.0	22.6	25.4	27.9	28.4	31.3	33.4	35.8
Australia	27.4	29.1	29.3	29.7	30.3	30.0	30.8	30.7	31.5	..
Ireland	31.4	35.0	33.5	32.7	32.8	32.2	31.7	31.3	31.1	29.2
United States	27.0	26.1	26.7	27.6	27.9	28.3	28.9	28.9	29.6	..
Japan	25.1	27.2	30.1	27.7	27.6	28.0	26.9	26.1	27.1	..
Korea	17.7	16.9	19.1	20.5	21.4	22.7	22.9	23.6	26.1	27.5
Mexico	16.2	17.0	17.3	16.6	16.6	17.5	16.5	17.3	18.5	18.3
<i>Unweighted averages:</i>										
OECD total	32.1	33.9	35.1	36.1	36.5	36.7	36.8	37.1	37.4	..
EU 15	36.0	38.8	39.5	40.0	40.6	40.9	40.9	41.5	41.6	..

Source: OECD, *Revenue Statistics*, 1965-2001 (Table 3 & Table A for provisional 2001 data)

Notes: \* - Ranked by 2000 figures (2001 data provisional and incomplete, as denoted by ..)

(a) Czech Republic, Hungary and Poland joined OECD in 1995/1996; data not available for some years

(b) Unified Germany from 1991 onwards

(c) Slovak Republic joined OECD in 2000; data prior to 1998 not available

On this basis, with a ratio of 37.4% the UK was ranked 15<sup>th</sup>, between Greece and Iceland. The UK figure is in line with the average for the 30 OECD countries, and is more than four percentage points below the average for the 15 EU countries.

Positions in the table broadly reflect generally higher levels of public spending associated with the European ‘social democratic’ model, compared with countries such as Australia, the US, Japan, Korea and Mexico. These five are all in the six lowest ranked countries, along with Ireland on 31.1%.

The nine countries ranking highest are all EU member states, with Norway ranking tenth. The average for the EU, at 41.6%, is significantly higher than an average of 33.3% for the other 15 OECD countries, and 28.0% for the US, Canada and Mexico.

Provisional figures for 2001 suggest that the UK tax burden will exceed that of Germany, with ratios of 37.4% and 36.4% respectively, prompting some media coverage on their release.<sup>10</sup> However, as provisional data these are likely to be revised on the basis of outturn tax receipts and GDP for 2001. For example, the provisional 2000 figure for the UK originally published was subsequently revised downwards by 0.3%, while the figure for Germany was revised upwards by 0.1%.

As with all international comparisons, complete comparability of tax burdens is very difficult to achieve due to the widely variable nature of tax systems between different countries. In arriving at these figures, the OECD has defined taxes as “...compulsory, unrequited payments to general government”, and it is sometimes unclear whether certain levies and licence fees fall within this definition, although the effect from such revenue streams is likely to be relatively small.

Tax burden comparisons are also affected by the relative mix of tax reliefs and cash benefits (the former reducing the tax burden and the latter not) and variations in taxation of government-provided social benefits. Also, countries are at different stages in the economic cycle, which influences revenue from some taxes and GDP growth.

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<sup>9</sup> Defined as total tax revenue (including compulsory social contributions) as a percentage of GDP at market prices.

<sup>10</sup> See for example, “Britons pay more tax than Germans as burden rises”, *Financial Times*, 11 October 2002, p3

## V Tax burden on UK households

One disadvantage of the preceding measures of the tax burden is that they fail to account for its distribution among the population.

National Statistics publishes an annual analysis, *The effects of taxes and benefits on household income*, including estimates of the average amounts paid in taxes and received in benefits by various groups across the income distribution.<sup>11</sup> This enables some conclusions to be drawn about the burden of taxation on households of differing composition and income levels over time.

This analysis is published in *Economic Trends*, and also as a stand-alone document, and these should be consulted for methodological detail.<sup>12</sup> This article is based on the results of the new Expenditure and Food Survey (EFS), with previous editions being derived from its predecessor, the Family Expenditure Survey.

As each year's analysis is undertaken as a free-standing exercise, figures for successive years are not directly comparable, leading to certain issues with presenting results in the form of a time series: for example, the definition of 'income' has been widened to include the value of company cars (from 1990) and the beneficial value of loans by employers for house purchase (from 1992). In addition, results are based on a relatively small sample survey and as such are potentially subject to some sampling error.

Although detailed comparisons particularly between consecutive years cannot be drawn, the data presented in the following tables do nevertheless display broad trends:

- table 3 shows the average proportion of gross income<sup>13</sup> paid in the form of (i) direct and (ii) indirect taxes for each quintile<sup>14</sup> (ranked by equivalised disposable income)<sup>15</sup>, and all households;
- table 4 shows the average proportion paid in direct and indirect taxes combined;
- table 5 shows the share of direct and indirect taxes combined paid by each quintile as a proportion of the total.

<sup>11</sup> Indirect taxes include an estimate of the extent to which intermediate taxes on businesses are passed on to consumers in the form of higher prices.

<sup>12</sup> National Statistics, *The Effects of Taxes & Benefits on Household Income, 2001/02*, April 2003, see [http://www.statistics.gov.uk/articles/economic\\_trends/effects\\_taxes\\_benefits\\_household\\_income\\_01-02/effects\\_taxes\\_benefits\\_household\\_income\\_2001-02.pdf](http://www.statistics.gov.uk/articles/economic_trends/effects_taxes_benefits_household_income_01-02/effects_taxes_benefits_household_income_2001-02.pdf) (published in National Statistics, *Economic Trends*, May 2003)

<sup>13</sup> Gross income = original income (before government intervention) plus cash benefits, e.g. state pension.

<sup>14</sup> Quintile groups are arrived at by dividing the income distribution into five equally-sized parts, each containing 20% of households. Data for more recent years is available by decile (i.e. 10% groups along the income distribution), but consistent figures from the 1970s to the present are available only by quintile.

<sup>15</sup> Equivalisation adjusts household income on the basis of composition so that income better reflects living standards. For example, a single person with a particular disposable income would generally be considered to have a higher standard of living than a family of four with the same income.

**Table 3: Direct & indirect taxes, each as % of gross income**

Year	Quintile of equivalised disposable income										All households	
	First (lowest)		Second		Third		Fourth		Fifth (highest)		dir.	indir.
	dir.	indir.	dir.	indir.	dir.	indir.	dir.	indir.	dir.	indir.		
1977	18%	19%	20%	17%	22%	17%	24%	15%	24%	13%	23%	15%
1979	12%	19%	16%	18%	20%	18%	22%	17%	23%	15%	20%	16%
1981	14%	22%	17%	19%	21%	18%	23%	17%	24%	15%	22%	17%
1983	13%	23%	16%	20%	22%	19%	24%	18%	25%	14%	22%	17%
1985	13%	23%	16%	19%	20%	19%	23%	17%	25%	14%	22%	17%
1987	13%	24%	16%	20%	20%	19%	22%	17%	24%	12%	21%	16%
1989	14%	24%	16%	20%	20%	18%	21%	16%	22%	13%	20%	16%
1991 (a)	13%	24%	15%	20%	18%	19%	20%	16%	22%	12%	20%	16%
1993/94 (b)	12%	27%	13%	21%	16%	20%	20%	16%	23%	12%	19%	16%
1994/95 (b)	12%	26%	13%	20%	18%	19%	21%	16%	24%	12%	20%	16%
1995/96 (b)	15%	26%	14%	22%	18%	19%	21%	17%	25%	12%	21%	16%
1996/97 (b)(c)	10%	27%	13%	22%	18%	19%	21%	16%	23%	12%	20%	16%
1997/98 (b)(c)	10%	28%	13%	22%	18%	19%	21%	17%	23%	12%	20%	16%
1998/99 (b)(c)	12%	28%	14%	21%	18%	19%	21%	17%	24%	12%	21%	16%
1999/00 (b)(c)	11%	30%	14%	21%	18%	19%	21%	17%	24%	11%	20%	16%
2000/01 (b)(c)	12%	29%	15%	22%	19%	19%	22%	17%	23%	12%	21%	16%
2001/02 (b)(c)	12%	30%	13%	20%	18%	18%	21%	15%	24%	10%	20%	15%

Notes: (a) Income includes company cars

(b) Income includes company cars and beneficial loans for house purchase from employers

(c) Sample re-weighted to reflect total population (for each year's survey)

Source: National Statistics, "The effects of taxes and benefits on household income", *Economic Trends*, May 2003 and earlier years (month of publication varies)

In 2001/02, direct taxes are progressive, in that the upper quintile (the 20% of households with the highest equivalised gross income) pays 24% of income as direct tax compared to 12% paid by the lowest quintile. This reflects the personal allowance, which takes those on very low incomes out of the tax system altogether, and a progressive rate structure, rising with incomes, from the 10% starting rate to the 40% higher rate. Indirect taxes are regressive, accounting for 30% of the gross income of the lowest quintile compared to only 10% for the highest quintile. As National Statistics note,

This is partly due to the recorded expenditure of some lower income households being higher than their recorded current incomes. This results in relatively large payments of indirect tax.<sup>16</sup>

The historical pattern for all households is a slight decrease in the proportion of income paid as direct tax since 1977; by comparison the proportion paid as indirect tax rose slightly over the period, but has since returned to 1977 levels.

The table also shows that the bottom two quintiles have seen the greatest changes over the period – the lowest quintile have seen the proportion of gross income paid as direct tax

<sup>16</sup> National Statistics, *Effects of Taxes & Benefits...*, 2003, op. cit., p2



fall whilst the proportion paid as indirect tax has risen, with similar if less dramatic changes for the second quintile.

Table 4, below, shows the overall burden of direct and indirect taxes combined. In 2001/02, some 35% of income was paid as tax – a slight fall from 2000/01 levels and the lowest in the period covered. These data also suggest that the proportion paid as tax has fallen for every quintile other than the lowest, which has seen an increase of 11 percentage points since 1979, although the change compared to 1977 is less marked at 5 percentage points.

**Table 4: Direct & indirect taxes (combined) as % of gross income**

Year	Quintile of equivalised disposable income					All households
	Lowest	Second	Third	Fourth	Highest	
1977	37%	37%	39%	40%	37%	38%
1979	31%	34%	38%	39%	37%	37%
1981	36%	36%	40%	41%	39%	39%
1983	37%	36%	40%	41%	40%	39%
1985	36%	35%	39%	40%	38%	38%
1987	37%	36%	38%	39%	37%	37%
1989	39%	36%	38%	37%	35%	36%
1991 (a)	38%	35%	37%	36%	34%	35%
1993/94 (b)	39%	33%	36%	36%	35%	36%
1994/95 (b)	39%	34%	36%	37%	36%	36%
1995/96 (b)	42%	36%	37%	38%	37%	37%
1996/97 (b)(c)	37%	35%	37%	37%	35%	36%
1997/98 (b)(c)	38%	34%	36%	38%	35%	36%
1998/99 (b)(c)	40%	35%	38%	38%	36%	37%
1999/00 (b)(c)	41%	35%	37%	38%	35%	37%
2000/01 (b)(c)	41%	36%	38%	38%	35%	37%
2001/02 (b)(c)	42%	33%	36%	36%	34%	35%

Notes: (a) Income includes company cars

(b) Income includes company cars and beneficial loans for house purchase from employers

(c) Sample re-weighted to reflect total population (for each year's survey)

Source: National Statistics, "The effects of taxes and benefits on household income", *Economic Trends*, May 2003 and earlier years (month of publication varies)

The 31% figure for the bottom quintile in 1979 appears to be 'off trend', and could be a reflection of factors such as:

- above-inflation increases in personal allowances in 1977/78 and 1979/80 and the introduction of a 25% lower rate of income tax in 1978/79, largely offset when the lower rate was removed (1980/81) and when allowances were frozen (1981/82);
- possible under-recording of income for some poorer households;
- possible sampling error

Table 5 (page 19) shows the proportions of all taxes contributed by each quintile. For example, the average household in the lowest quintile contributes only 7% of the total tax paid by all households even though they contribute the highest proportion of their income

as tax. By comparison, the average household in the highest quintile pays more than six times as much, 43%, of the total tax paid by all households.

**Table 5: % of total direct/indirect taxes (combined) paid by each quintile**

Year	Quintile of equivalised disposable income					All households
	Lowest	Second	Third	Fourth	Highest	
1977	7%	12%	20%	26%	35%	100%
1979	6%	12%	20%	27%	36%	100%
1981	7%	11%	19%	26%	37%	100%
1983	7%	10%	19%	25%	38%	100%
1985	7%	10%	19%	26%	38%	100%
1987	7%	10%	18%	25%	40%	100%
1989	7%	10%	19%	26%	39%	100%
1991 (a)	6%	10%	18%	26%	40%	100%
1993/94 (b)	7%	9%	17%	24%	42%	100%
1994/95 (b)	7%	9%	17%	25%	42%	100%
1995/96 (b)	8%	10%	17%	24%	41%	100%
1996/97 (b)(c)	7%	10%	17%	25%	41%	100%
1997/98 (b)(c)	7%	10%	17%	25%	41%	100%
1998/99 (b)(c)	7%	10%	17%	24%	42%	100%
1999/00 (b)(c)	7%	10%	17%	25%	42%	100%
2000/01 (b)(c)	7%	11%	17%	25%	41%	100%
2001/02 (b)(c)	7%	10%	16%	24%	43%	100%

Notes: (a) Income includes company cars

(b) Income includes company cars and beneficial loans for house purchase from employers

(c) Sample re-weighted to reflect total population (for each year's survey)

Source: National Statistics, "The effects of taxes and benefits on household income", *Economic Trends*, May 2003 and earlier years (month of publication varies)

The share of total tax paid by the top 20% of households appears to have risen, up seven percentage points on the 1979 figure, with some fluctuation in the intervening period. Although this quintile is paying a greater proportion of taxes, it is facing a lower tax burden – down three percentage points to 34% over the same period – as the richest 20% have seen their share of gross household income rise from around 35% in 1979 to 44% in 2001/02.<sup>17</sup>

There have been modest falls in the proportion of total tax paid by the second, third and fourth quintiles, with the share paid by the lowest quintile being broadly unchanged.

A table of the shares of direct and indirect taxes paid by each quintile over the same period can be found in appendix 3 (table 11).

<sup>17</sup> In the same period, the lowest quintile's share of total gross income has fallen slightly from just under 8% to just over 6%.

## VI Tax burden for ‘hypothetical households’

A further disadvantage of aggregate measures of the tax burden is that they do not fully account for the impact of structural changes to the tax and benefit system, for example the move in the UK from child tax allowances to child benefit in the late 1970s, and more recently towards the use of tax credits.

### A. Background

From 1981 until 1996, a series of parliamentary questions about the taxes paid by various hypothetical households on different multiples of average male earnings were answered by the Treasury.<sup>18</sup> These answers included both direct taxes (income tax and national insurance contributions) and indirect taxes (such as VAT, excise duties, and local government taxes).

Similar questions since the 1997 General Election have received substantive replies for direct taxes only, due to the variable effects of indirect taxation – for example, in answer to a question tabled after the 1998 Budget the Treasury stated that

Further consideration is being given to whether the information provided is typical of families in the UK. Similarly, estimating the impact of indirect taxes is imprecise as spending patterns vary widely between households with the same composition and income. The level of council tax payments will also vary depending on where families live. Further consideration is being given to whether the conventions, assumptions and sampling methods can be improved in order to provide information which is meaningful and reliable.<sup>19</sup>

A question requesting data on indirect taxes specifically after the 1999 Budget received the following answer:<sup>20</sup>

Estimating the impact of indirect taxes on the basis of average assumptions about household spending is imprecise as spending patterns vary widely between households with the same composition and income, with the consumption of the majority of goods and services far from universal. For example, only around one third of adults are smokers. This can be contrasted with direct taxes and benefits where at specified earnings and for particular household types there is a known benefit entitlement or tax liability.

The Treasury publication *The Tax Benefit Reference Manual 1999/00*, announced that: “Following careful consideration this series has been discontinued [...]”.<sup>21</sup>

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<sup>18</sup> See, for example, HC Deb 11 December 1996 c190W

<sup>19</sup> HC Deb 5 May 1998 c331W

<sup>20</sup> HC Deb 24 May 1999 c56W

<sup>21</sup> HM Treasury, *Tax Benefit Reference Manual*, July 1999, para 13.13

## B. Methodology

Because of these difficulties outlined above, this section looks only at direct tax paid by hypothetical households, accounting for certain tax credits, and the resulting effects on take-home pay. Those interested in the impact of indirect taxes from 1978/79 through to 1997/98 are directed to previous versions of this Research Paper.<sup>22</sup>

This paper considers, for the period 1991/92 to 2003/04, three broad household types: (i) a single person; (ii) a married couple (without children) where both are in work; and (iii) a married couple with two children under 11 where only the husband works.

Family Credit (abbreviated to ‘FC’ in the tables), the Working Families’ Tax Credit (WFTC) and Children’s Tax Credit (ChTC) and their successors, the Working Tax Credit (WTC) and Child Tax Credit (CTC) are included, reflecting the Government’s view that tax credits are integral to the tax system (see technical note 2: Personal Tax Credits, above). A number of necessary simplifying assumptions have been made for this analysis, and conclusions drawn are only relevant where all of the following assumptions hold:

- The only sources of income are earnings, child benefit, children’s tax credit and FC/ChTC/WFTC/WTC/CTC. The only tax allowance is assumed to be the standard personal income tax allowance (thus earners assumed to be aged under 65).
- Earners are employees and not contracted out of the state second pension (and therefore paying national insurance contributions at the full class 1 rate<sup>23</sup>); earnings are assumed to be spread uniformly throughout the financial year.
- In two-earner households, combined earnings are assumed to be at the given multiple of the national median<sup>24</sup> (see technical note 3), split between husband and wife in the ratio 60:40.
- Where appropriate, child benefit has been treated as negative income tax. This is a standard approach in such exercises (as has Children’s Tax Credit for 2001/02 and 2002/03 only), reflecting the replacement of child tax allowances and taxable family allowances with child benefit in the late 1970s and tax credits more recently.
- FC/WFTC/WTC/CTC are based on a single earner couple with two children aged under 11, but over 1 and therefore not eligible for higher ‘baby’ rates of credit. With only one earner, the family is not eligible for childcare element of working tax credit. The earner is assumed to be receiving the 30-hour credit. Household capital is assumed to be below £3,000 (for WFTC) and unearned income below £300 (for WTC/CTC).

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<sup>22</sup> For example, Library Research Paper 97/50, *The Burden of Taxation*, 22 May 1997

<sup>23</sup> This rate increased by 1% to 11% for 2003-04 – see featured article in Research Paper 03/33, *Economic Indicators*, 1 April 2003; <http://www.parliament.uk/commons/lib/research/rp2003/rp03-033.pdf>

<sup>24</sup> Median earnings for full-time adult employees in Great Britain whose pay was unaffected by absence. Financial year data are averages of data from successive April’s *New Earnings Surveys*. Figures for 2002/03 and 2003/04 are based assumed earnings growth of 3.8% in each year (broadly in line with HM Treasury’s average of independent forecasts thereafter).

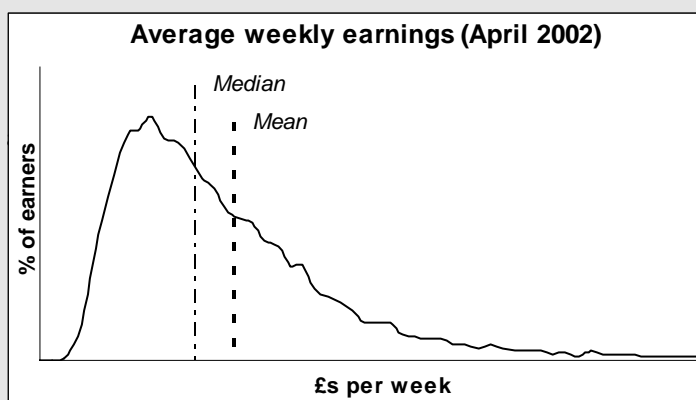
- Unlike WFTC, WTC can be claimed by individuals and households without children under certain circumstances for those on relatively low incomes.<sup>25</sup> In the tables, the single earner (without children) is assumed to be aged 25 or over and working at least 30 hours per week. Given the relevant WTC eligibility conditions<sup>26</sup> and the assumed 60:40 earnings split, the married couple without children are deemed not to be eligible for WTC.<sup>27</sup>
- Initial 2003/04 WTC/CTC awards were based on 2001/02 gross income. Initial, estimated awards will be revised to reflect true entitlement at the end of the tax year. Here, 2003/04 tax credits awards are based on (projected) average earnings in 2003/04.<sup>28</sup>
- Retail prices are measured by the all-items Retail Prices Index for each financial year. The Treasury's 2003 Budget forecast of 2.75% has been used for 2003/04.<sup>29</sup>

### Technical note 3: Mean & median earnings

The **mean** (or average) is calculated by adding all the values in a sample together and dividing them by the sample size. The **median** represents the point that divides a distribution in half, i.e. half of the distribution is above it and half below. In terms of earnings distributions, the mean represents 'average person's' wage and the median the amount earned by the middle or 'typical' earner - the wage that exactly half of earners earn above and half of earners earn below. The median is often used because it is unaffected by extreme values at either end of the earnings distribution.

This stylised earnings distribution for Great Britain<sup>30</sup> has features common to such distributions: it is positively skewed, i.e. with a 'hump' at lower earnings levels and a long 'tail' of higher earners.

In such distributions, the mean will exceed the median because a relatively small number of very high earners effectively 'drag' the mean up the income distribution.



<sup>25</sup> Median earnings are relatively high compared to the level where WTC is 'wasted' away, so only table 12 includes payable WTC; see <http://www.legislation.hms.gov.uk/si/si2002/20022008.htm> for detail.

<sup>26</sup> (i) aged 50 or over, work at least 16 hours a week and qualify for the 50-plus WTC element; (ii) have a physical/mental disability that qualifies for the WTC disability element and work at least 16 hours a week; or (iii) if making a joint claim and either or both work 30 hours a week.

<sup>27</sup> The hourly earnings for the higher earner in the couple on 50% of the median (the only earnings level considered that is relevant) would be below the minimum wage if the 30-hour condition is held.

<sup>28</sup> Looking only at the effect on a take home pay, this analysis ignores to whom payments are made (WTC is to be paid through the pay packet for employees, whereas CTC will be paid directly to the main carer)

<sup>29</sup> See HM Treasury, *Budget Red Book 2003*, op. cit., table C3, p250

<sup>30</sup> Weekly earnings data from National Statistics, *New Earnings Survey*, April 2002 for full-time employees on adult rates whose pay was unaffected by absence.

### C. Results for hypothetical households

Tables 6 and 7 (below) show the effects of direct taxes and credits on take home pay for households on 75% and 100% of median earnings, under the assumptions described above (equivalent tables for households on 50%, 200% and 500% of median earnings are given in appendix 4). Some of the main features are:

- Real take home pay has generally increased over the period for these households on both 75% and 100% of median earnings. This partly reflects rising gross earnings: projected real median weekly gross earnings in 2003/04 are around 17% higher than in 1991/92.
- However, some households have seen their real take home pay fall in certain years. In 2003/04, the index fell back slightly for households consisting of a single person and a married couple without children. This reflects changes to national insurance contributions that came into effect in April 2003, but were not compensated for by the new tax credits for these household types at these levels of earnings.
- Most households saw the proportion of their gross earnings taken as income tax and NICs (after offsetting credits) fall over the period. This was most pronounced for a married couple with two children on 75% of the median, who have seen their tax burden become negative from 2000/01 onwards due to targeted tax credits. WTC/CTC is more generous to those further up the earnings distribution – those on 100% of the median received more than twice as much than they did under WFTC.
- However, married couples without children have seen their proportion of earnings paid as tax (after credits) rise over the period, markedly in 2003/04, again reflecting changes to national insurance affecting both earners. This trend reflects the loss of the Married Couple's Allowance which has not been compensated for by tax credits, which have been of greatest benefit to households with children (along with real increases in child benefit).

Two main limitations of this analysis should be noted. First, it takes no account of non-standard tax reliefs (such as mortgage interest relief or changes to the taxation of non-monetary income, such as company cars) or any changes to the tax system for unearned income.

Second, due to the necessary assumptions made, these hypothetical households cannot reflect all taxpayers and their circumstances. For example, no account is taken of the self-employed or pensioners who also pay tax. Also, employees are assumed to be contracted into SERPS (now the state second pension, or S2P), but many now pay NICs at the lower contracted-out rate.

Also, the households considered do not relate to 'real' people, as in reality people's circumstances change from year to year. This analysis reflects the situation as it would affect a household of a given structure in each year.

#### **Technical note 4: From MCA to CTC**

##### **(i) Married Couple's Allowance (MCA)**

Married Couple's Allowance (MCA) was introduced in 1990/91 and could be set against taxpayers' highest marginal rate of tax at the rate of £1,720. The nominal amount of the allowance was not increased until 1996/97.

From 1994/95 MCA was changed to a tax credit of 20% of the nominal allowance (£344) which could then be set against final income tax liability, reduced to 15% in 1995/96 and further to 10% in 1999/00, when the nominal value was £1,970.

From 6 April 2000, MCA was withdrawn except for those aged 65 or over on this date.

##### **(ii) Children's Tax Credit**

The introduction of the Children's Tax Credit in 2001/02 saw a shift to the targeting of families with children rather than married couples. The initial nominal value of the credit was £5,200 payable at 10% (i.e. a tax credit worth £520). This credit was withdrawn, or 'tapered', at a rate of £1 for every £15 of income liable to the higher rate of income tax. As a result, the credit was wasted, or 'exhausted' at an income of £41,735.

The nominal value was up-rated for 2002/03 to £5,920 (and therefore worth £592), exhausted at £42,450. Also a new, higher 'baby' rate of credit was introduced, payable to families with new-born children. This doubled the nominal allowance for the year to £10,490 (a credit of £1,049), and was exhausted at an income of £50,250.

##### **(iii) Child Tax Credit (CTC)**

Replacing Children's Tax Credit from April 2003, CTC consists of two main elements: the family element and the per child element. Households with one or more children aged under 16, or under 19 and in full-time education, are eligible. CTC will be paid directly to the 'main carer', and additional elements are available for families with disabilities.

As with its predecessor, there is a higher 'baby' rate of the family element CTC, which is available to families with at least one child aged under one. The Chancellor has also announced that the child element will be up-rated with earnings, as opposed to inflation, for the life of this Parliament.

CTC (and WTC) awards for 2003/04 will be initially based on taxable income in 2001/02,<sup>31</sup> but current circumstances (number of children and hours worked).

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<sup>31</sup> Includes earnings, plus savings and investment income, property income, foreign income, pensions, student grants for adult dependants) if these are more than £300 in 2001/02.

Table 6: Burden of direct taxes & real take home pay: **75%** of median earnings

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	(projected gross earnings)	
												2002/03	2003/04
<b>Gross earnings</b>													
current (cash) prices	£191.85	£201.83	£208.28	£214.80	£222.00	£231.00	£240.83	£250.05	£259.73	£271.20	£282.53	£293.30	£304.40
} current prices	£32.12	£31.97	£33.10	£34.25	£35.48	£35.06	£35.13	£36.48	£36.81	£37.60	£38.63	£40.57	£42.92
} current prices	£13.63	£14.38	£14.82	£16.92	£17.56	£18.22	£19.12	£19.89	£19.37	£19.52	£19.55	£20.43	£23.69
WTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£0.00
(Income tax + NICs) - WTC	£45.75	£46.35	£47.93	£51.17	£53.04	£53.28	£54.26	£56.36	£56.19	£57.12	£58.18	£61.00	£66.61
(Income tax + NICs) - WTC	£60.19	£59.15	£60.12	£62.47	£62.72	£61.53	£60.64	£61.07	£59.93	£59.19	£59.39	£61.00	£64.83
(Income tax + NICs) - WTC	23.8%	23.0%	23.0%	23.8%	23.9%	23.1%	22.5%	22.5%	21.6%	21.1%	20.6%	20.8%	21.9%
Take-home pay	£146.10	£155.47	£160.35	£163.63	£168.96	£177.72	£186.57	£193.69	£203.54	£214.08	£224.34	£232.30	£237.79
Take-home pay	£192.24	£198.39	£201.14	£199.75	£199.81	£205.24	£208.54	£209.89	£217.12	£221.82	£228.99	£232.30	£231.42
Take-home pay	100.0	103.2	104.6	103.9	103.9	106.8	108.5	109.2	112.9	115.4	119.1	120.8	120.4
index (2002/03 prices)													
<b>Married, no children (both working)</b>													
Income tax	£8.01	£7.25	£8.54	£10.09	£12.52	£12.08	£11.77	£12.26	£11.18	£16.15	£16.35	£17.62	£19.43
NICs	£9.99	£10.60	£10.90	£12.36	£12.92	£13.34	£14.16	£14.77	£12.77	£11.92	£10.85	£11.53	£13.90
Income tax + NICs	£18.00	£17.85	£19.44	£22.45	£25.44	£25.42	£25.93	£27.03	£23.95	£28.07	£27.20	£29.15	£33.34
Income tax + NICs	£23.68	£22.78	£24.39	£27.41	£30.08	£29.35	£28.99	£29.29	£25.55	£29.09	£27.76	£29.15	£32.45
Income tax + NICs	9.4%	8.8%	9.3%	10.5%	11.5%	11.0%	10.8%	10.8%	9.2%	10.4%	9.6%	9.9%	11.0%
Take-home pay	£173.85	£183.97	£188.83	£192.35	£196.56	£205.59	£214.89	£223.03	£235.77	£243.13	£255.32	£264.15	£271.06
Take-home pay	£228.75	£234.76	£236.87	£234.81	£232.44	£237.42	£240.20	£241.68	£251.50	£251.93	£260.61	£264.15	£263.81
Take-home pay	100.0	102.6	103.5	102.6	101.6	103.8	105.0	105.7	109.9	110.1	113.9	115.5	115.3
index (2002/03 prices)													
<b>Married, two children (husband only working)</b>													
Income tax	£23.85	£23.70	£24.83	£27.64	£30.51	£29.90	£29.85	£31.00	£33.02	£37.60	£28.63	£30.40	£42.92
of which Children's tax credit	..	..	..	..	..	..	..	..	..	..	..	£10.17	..
NICs	£13.63	£14.38	£14.82	£16.92	£17.56	£18.22	£19.12	£19.89	£19.37	£19.52	£19.55	£20.43	£23.69
Child benefit	£16.13	£17.45	£18.10	£18.45	£18.85	£19.60	£20.05	£20.75	£24.00	£25.00	£25.85	£26.30	£26.80
FC/WFTC	£0.00	£0.00	£0.00	£0.00	£4.75	£4.87	£2.01	£2.20	£20.50	£48.21	£43.82	£45.25	..
WTC/CTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£58.70
(Income tax + NICs) - (credits + CB)	£21.35	£20.64	£21.56	£26.11	£24.47	£23.65	£26.92	£27.93	£7.90	£16.08	£21.49	£20.72	£18.89
(Income tax + NICs) - (credits + CB)	£28.10	£26.33	£27.04	£31.87	£28.94	£27.31	£30.09	£30.26	£8.43	£16.66	£21.94	£20.72	£18.38
(Income tax + NICs) - (credits + CB)	11.1%	10.2%	10.4%	12.2%	11.0%	10.2%	11.2%	11.2%	3.0%	-5.9%	-7.6%	-7.1%	-6.2%
Take-home pay	£170.50	£181.19	£186.72	£188.69	£197.53	£207.35	£213.91	£222.12	£251.83	£287.28	£304.02	£314.02	£323.29
Take-home pay	£224.34	£231.21	£234.22	£230.35	£233.59	£239.46	£239.10	£240.70	£268.62	£297.68	£310.31	£314.02	£314.63
Take-home pay	100.0	103.1	104.4	102.7	104.1	106.7	106.6	107.3	119.7	132.7	138.3	140.0	140.3
index (2002/03 prices)													



Table 7: Burden of direct taxes & real take home pay: **100%** of median earnings

£s, per week

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
<b>Gross earnings</b>													
current (cash) prices	£255.80	£269.10	£277.70	£286.40	£296.00	£308.00	£321.10	£333.40	£346.30	£361.60	£376.70	£391.00	£405.90
} current prices	£48.11	£48.79	£50.46	£52.15	£53.98	£53.54	£53.60	£55.65	£56.72	£57.49	£59.35	£62.06	£65.25
} current prices	£19.38	£20.44	£21.07	£24.08	£24.96	£25.92	£27.15	£28.22	£28.03	£28.56	£28.97	£30.20	£34.86
WTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£0.00
(Income tax + NICs) - WTC	£67.49	£69.23	£71.53	£76.23	£78.94	£79.46	£80.75	£83.87	£84.75	£86.05	£88.32	£92.26	£100.11
(Income tax + NICs) - WTC	£88.80	£88.34	£89.73	£93.06	£93.35	£91.77	£90.25	£90.88	£90.41	£89.17	£90.15	£92.26	£97.43
(Income tax + NICs) - WTC	26.4%	25.7%	25.8%	26.6%	26.7%	25.8%	25.1%	25.2%	24.5%	23.8%	23.4%	23.6%	24.7%
Take-home pay	£188.31	£199.87	£206.17	£210.17	£217.06	£228.54	£240.35	£249.53	£261.55	£275.55	£288.38	£298.74	£305.79
Take-home pay	£247.78	£255.05	£258.62	£256.57	£256.69	£263.93	£268.66	£270.40	£278.99	£285.52	£294.35	£298.74	£297.61
Take-home pay	100.0	102.9	104.4	103.5	103.6	106.5	108.4	109.1	112.6	115.2	118.8	120.6	120.1
index (2002/03 prices)													
<b>Married, no children (both working)</b>													
Income tax	£24.00	£22.03	£23.39	£26.56	£29.54	£28.97	£28.91	£30.03	£30.01	£35.43	£35.82	£38.11	£41.20
NICs	£15.74	£16.66	£17.15	£19.52	£20.32	£21.04	£22.19	£23.10	£21.43	£20.96	£20.27	£21.30	£25.07
Income tax + NICs	£39.74	£38.69	£40.54	£46.08	£49.86	£50.01	£51.10	£53.13	£51.44	£56.39	£56.09	£59.41	£66.27
Income tax + NICs	£52.29	£49.38	£50.85	£56.25	£58.96	£57.75	£57.11	£57.57	£54.87	£58.43	£57.26	£59.41	£64.50
Income tax + NICs	15.5%	14.4%	14.6%	16.1%	16.8%	16.2%	15.9%	15.9%	14.9%	15.6%	14.9%	15.2%	16.3%
Take-home pay	£216.06	£230.41	£237.16	£240.32	£246.14	£257.99	£270.00	£280.27	£294.86	£305.21	£320.61	£331.59	£339.63
Take-home pay	£284.29	£294.01	£297.50	£293.38	£291.08	£297.94	£301.80	£303.71	£314.53	£316.25	£327.24	£331.59	£330.54
Take-home pay	100.0	103.4	104.6	103.2	102.4	104.8	106.2	106.8	110.6	111.2	115.1	116.6	116.3
index (2002/03 prices)													
<b>Married, two children (husband only working)</b>													
Income tax	£39.84	£40.52	£42.19	£45.54	£49.01	£48.38	£48.32	£50.17	£52.94	£57.49	£49.35	£51.89	£65.25
of which Children's tax credit	..	..	..	..	..	..	..	..	..	..	..	..	..
NICs	£19.38	£20.44	£21.07	£24.08	£24.96	£25.92	£27.15	£28.22	£28.03	£28.56	£28.97	£30.20	£34.86
Child benefit	£16.13	£17.45	£18.10	£18.45	£18.85	£19.60	£20.05	£20.75	£24.00	£25.00	£25.85	£26.30	£26.80
FC/WFTC	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£3.31	£14.40	£8.60	£8.71	..
WTC/CTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£21.15
(Income tax + NICs) - (credits + CB)	£43.10	£43.51	£45.16	£51.17	£55.12	£54.70	£55.42	£57.64	£53.66	£46.66	£43.87	£47.08	£52.16
(Income tax + NICs) - (credits + CB)	£56.71	£55.52	£56.65	£62.46	£65.19	£63.17	£61.94	£62.46	£57.24	£48.34	£44.77	£47.08	£50.77
(Income tax + NICs) - (credits + CB)	16.8%	16.2%	16.3%	17.9%	18.6%	17.8%	17.3%	17.3%	15.5%	12.9%	11.6%	12.0%	12.9%
Take-home pay	£212.70	£225.59	£232.54	£235.23	£240.88	£253.30	£265.68	£275.76	£292.64	£314.94	£332.83	£343.92	£353.74
Take-home pay	£279.87	£287.87	£291.70	£287.16	£284.85	£292.52	£296.97	£298.83	£312.16	£326.54	£339.72	£343.92	£344.27
Take-home pay	100.0	102.9	104.2	102.6	101.8	104.5	106.1	106.8	111.5	116.6	121.4	122.9	123.0
index (2002/03 prices)													

## VII Hypothetical households: international comparisons

The OECD publishes international comparisons of the tax burden on certain hypothetical households earning wages equivalent to the average adult full-time manual worker in the manufacturing industry in each of the 30 OECD countries. Table 8 shows the proportion of gross wages paid in tax, less cash benefits in 2002 for (i) a single person without children and (ii) a single-earner married couple with two children, and ranked by the former:

**Table 8: Tax\* less cash benefits as % of gross earnings, 2002**  
*for earnings equivalent to the average production worker*

	Single Person, no children	One-earner couple (married), two children
Denmark	43.1	30.5
Belgium	41.4	21.6
Germany	41.2	18.6
Finland	31.7	23.2
Poland	31.0	25.0
Sweden	30.4	21.0
Turkey	30.0	30.0
Hungary	29.1	7.8
Norway	28.8	17.9
Netherland	28.7	17.2
Austria	28.6	9.0
Italy	28.1	12.2
France	26.5	14.2
Canada	25.7	15.1
United States	24.3	11.3
Czech Republic	23.7	3.7
Australia	23.6	14.7
<b>United Kingdom</b>	<b>23.3</b>	<b>10.8</b>
Luxembourg	22.1	-3.6
Iceland	22.0	-3.2
Switzerland	21.5	8.6
New Zealand	20.0	18.2
Slovak Republic	19.3	3.1
Spain	19.2	10.4
Greece	16.5	17.0
Portugal	16.5	5.2
Ireland	16.4	-0.8
Japan	16.2	11.9
Korea	8.7	8.1
Mexico	3.6	3.6
<i>Unweighted averages:</i>		
OECD total	24.7	12.7
EU15	25.9	13.9

Source: OECD, *Taxing Wages 2001-2002*, 2003, table 3, pp82-83

Notes: \* - defined as income tax & employee contributions

As was the case for the hypothetical households featured in the analysis in section VI, above, the calculation of 'taxes' here reflects standard allowances and reliefs only. As a

result, the exercise is subject to similar limitations, although the calculations do account for certain cash benefits such as child benefit in the case of the UK.<sup>32</sup>

As the table shows, a single person with no children earning the average production wage in the UK paid 23.3% of their gross earnings in 2002. This figure is below the average for the OECD 30 and the EU 15, with the UK ranked 18<sup>th</sup> highest in the OECD, and 10<sup>th</sup> highest in the EU. Mexico has the lowest proportion of tax as a proportion of gross wage, at 3.6%.

For a couple with two children with only one earner on the average production wage, the figure for the UK is 10.8%, which is also under the averages for both the OECD and the EU, with identical rankings as for the single person with no children case. Iceland, Ireland and Luxembourg all have negative figures because, at these earnings levels, benefit payments more than offset tax liability and social security contributions.<sup>33</sup>

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<sup>32</sup> Eurostat, the Statistical Office of the European Communities, also publishes similar data for the EU and accession countries; see Eurostat, *Structural Indicators*, Indicator I4: 'Tax rate on low-wage earners', <http://europa.eu.int/comm/eurostat/structuralindicators>

<sup>33</sup> Note that the full publication of these data in OECD, *Taxing Wages 2001-02*, 2003 includes similar data for these two family structures for on a range of multiples of the earnings of an average production worker.

## Appendix 1: Tax rates/allowances & benefits

**Table 9: Headline tax & benefit rates for 2002/03 & 2003/04**

*all money figures in £s*

		2002/03		2003/04	
		pa/rates	pw	pa/rates	pw (a)
<b>Income Tax</b>	Personal allowance (under 65)	4,615		4,615	
	Starting rate threshold	1,920		1,960	
	Basic rate threshold	29,900		30,500	
	Starting rate	10%		10%	
	Basic rate	22%		22%	
	Higher rate	40%		40%	
<b>Employee NICs</b>	Lower earnings level		75		77
	Primary threshold (PT)		89		89
	Upper earnings limit (UEL)		585		595
	Rate (between PT and UEL)	10%		11%	
	Rate (above UEL)	..		1%	
<b>Working Families' Tax Credit</b>	Adult credit		62.50 (b)	..	..
	30 hour credit		11.65	..	..
	Child credit (under 16)		26.45	..	..
	Applicable amount		94.50	..	..
	Taper rate	55p per £1		..	..
<b>Children's Tax Credit</b>	Amount	5,290/10,490	(c)	..	..
	Rate	10%		..	..
	Taper rate (for higher rate taxpayers)	6.7 p per £1		..	..
	Full entitlement threshold	34,515		..	..
<b>Working Tax Credit *</b>	Basic element (single person, no children)	..	..	1,525	29.19
	Second adult (couple)/Lone parent element	..	..	1,500	28.70
	30 hours pw element	..	..	620	11.90
	Entitlement threshold	..	..	5,060	96.78
	Taper rate	..	..	37p per £1	
	<i>Childcare element</i>				
	Maximum eligible cost, 1 child (pw)	..	..		135
	Maximum eligible cost, 2+ children (pw)	..	..		200
	Proportion of eligible costs covered	..	..	70%	
<b>Child Tax Credit *</b>	<i>per Child Element</i>				
	Credit	..	..	1,445	27.65
	Entitlement threshold	..	..	5,060	96.78
	Entitlement threshold (if only eligible for CTC)(d)	..	..	13,230	253.05
	Taper rate	..	..	37p per £1	
	<i>Family Element</i>				
	Credit	..	..	545/1,090	10.43/20.86 (e)
	Entitlement threshold (or 'second threshold')	..	..	50,000	956.28
	Taper rate	..	..	6.7p per £1	
<b>Child Benefit</b>	First child		15.75		16.05 (f)
	Second child		10.55		10.75

Notes: (a) Tax Credit weekly rates (apart from WTC childcare element, which is based on the figures shown) are calculated on the basis of dividing the annual entitlement/threshold by 366 (2004 being a leap year), rounding UP to the nearest penny then multiplying the result by 7.

(b) From June 2002; the rate for April and May was £60.00

(c) The higher 'baby' rate of £10,490 (2002/03) for children born on/after 6 April 2002

(d) Otherwise WTC threshold used

(e) The higher rate payable for families in financial year of child's birth

(f) Higher rate of £17.55 payable to lone parent claimants with protected rates

\* - income jointly assessed for couples; refer to Inland Revenue documentation for details of other elements

.. - not applicable

## Appendix 2: Tax burden (national accounts basis) 1900-2002

### Table 10: Taxes & Social Contributions

as % of GDP

Library estimates			Library estimates			Official data	
Year	Including Southern Ireland	Excluding Southern Ireland	Year	Excluding Southern Ireland	Official data	Year	Official data
1900	8.5%		1941	29.0%		1982	38.8%
1901	9.1%		1942	31.1%		1983	38.3%
1902	10.0%		1943	34.2%		1984	38.6%
1903	10.0%		1944	36.0%		1985	38.2%
1904	9.8%		1945	37.1%		1986	37.9%
1905	9.7%		1946	36.6%	36.6%	1987	37.2%
1906	9.6%		1947		34.8%	1988	37.0%
1907	9.6%		1948		35.1%	1989	36.9%
1908	9.7%		1949		35.5%	1990	36.5%
1909	9.6%		1950		34.2%	1991	36.1%
1910	10.2%		1951		33.0%	1992	35.2%
1911	10.1%		1952		32.1%	1993	33.9%
1912	10.6%		1953		30.4%	1994	34.4%
1913	10.6%		1954		29.8%	1995	35.4%
1914	10.7%		1955		29.8%	1996	35.0%
1915	11.1%		1956		28.9%	1997	35.6%
1916	14.6%		1957		29.2%	1998	36.8%
1917	15.6%		1958		29.8%	1999	36.8%
1918	16.2%		1959		29.3%	2000	37.6%
1919	19.4%		1960		28.2%	2001	37.3%
1920	19.5%	19.9%	1961		29.5%	2002	35.9% (a)
1921		23.2%	1962		30.8%		
1922		24.0%	1963		29.7%		
1923		23.1%	1964		29.5%		
1924		21.3%	1965		30.8%		
1925		20.7%	1966		31.9%		
1926		21.4%	1967		33.7%		
1927		20.9%	1968		35.1%		
1928		21.1%	1969		36.7%		
1929		20.5%	1970		37.2%		
1930		20.7%	1971		35.2%		
1931		22.5%	1972		33.4%		
1932		24.6%	1973		32.1%		
1933		23.5%	1974		35.7%		
1934		22.4%	1975		36.4%		
1935		21.9%	1976		35.7%		
1936		21.6%	1977		34.9%		
1937		21.5%	1978		33.6%		
1938		21.9%	1979		34.0%		
1939		22.4%	1980		36.0%		
1940		24.3%	1981		37.8%		

Note: (a) - estimate, data due to be released 30 September 2003

Sources: National Statistics Database (series GCSU & YBHA); Library Estimates Sefton & Weale, *Balanced Estimates of national income for the UK 1920-1990*, 1995  
 CH Feinstein, *National Income, Expenditure & Output for the UK 1855-1965*, 1972  
 CSO, *Annual Abstract of Statistics*, 1952 table 254 & earlier editions

### Appendix 3: UK household tax burden (supplementary table)

Please refer to provisos set out on page 16 when interpreting these figures; data for successive years are not strictly comparable.

**Table 11: % of total direct/indirect taxes paid by each quintile**

Year	Quintile of equivalised disposable income									
	Lowest		Second		Third		Fourth		Highest	
	dir.	indir.	dir.	indir.	dir.	indir.	dir.	indir.	dir.	indir.
1977	6%	10%	11%	14%	19%	21%	26%	25%	38%	30%
1979	4%	8%	10%	14%	19%	21%	27%	26%	39%	31%
1981	5%	10%	9%	14%	18%	20%	27%	25%	41%	32%
1983	5%	11%	8%	13%	18%	20%	26%	25%	43%	31%
1985	4%	10%	8%	12%	17%	21%	27%	25%	44%	31%
1987	4%	10%	8%	13%	16%	21%	25%	25%	47%	31%
1989	4%	9%	8%	13%	17%	20%	26%	25%	44%	32%
1991 (a)	4%	9%	8%	13%	16%	20%	25%	26%	47%	31%
1993/94 (b)	4%	11%	7%	13%	14%	20%	24%	24%	51%	32%
1994/95 (b)	4%	11%	6%	13%	14%	20%	25%	25%	50%	31%
1995/96 (b)	5%	12%	7%	14%	15%	20%	24%	24%	49%	30%
1996/97 (b)(c)	3%	11%	7%	14%	15%	20%	25%	24%	50%	31%
1997/98 (b)(c)	3%	11%	7%	14%	15%	19%	26%	25%	50%	31%
1998/99 (b)(c)	4%	11%	7%	13%	15%	19%	24%	24%	50%	32%
1999/00 (b)(c)	3%	11%	7%	13%	15%	20%	25%	24%	50%	31%
2000/01 (b)(c)	4%	11%	8%	14%	15%	19%	25%	24%	48%	31%
2001/02 (b)(c)	3%	13%	7%	14%	14%	19%	24%	24%	51%	31%

Notes: (a) Income includes company cars

(b) Income includes company cars and beneficial loans for house purchase from employers

(c) Sample re-weighted to reflect total population (for each year's survey)

Source: National Statistics, "The effects of taxes and benefits on household income", *Economic Trends*, May 2003 and earlier years (month of publication varies)

### Appendix 4: Hypothetical households (supplementary tables)

The tables on the following pages provide similar data to tables 2 and 3 in section IV. The levels of earnings considered here are 50% (table 12), 200% (table 13) and 500% (table 14) of the median:

Table 12: Burden of direct taxes & real take home pay: **50%** of median earnings

£s, per week

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	(projected gross earnings)	
												2002/03	2003/04
<b>Gross earnings</b>												£195.50	£202.90
current (cash) prices	£127.90	£134.55	£138.85	£143.20	£148.00	£154.00	£160.55	£166.70	£173.15	£180.80	£188.35		
} current prices	£16.13	£15.15	£15.75	£16.35	£16.98	£16.58	£16.67	£17.31	£16.90	£17.72	£17.91	£19.05	£20.59
} current prices	£7.87	£8.33	£8.58	£9.76	£10.16	£10.52	£11.10	£11.55	£10.72	£10.48	£10.14	£10.65	£12.53
WTC (from 2003/04)													£1.83
(Income tax + NICs) - WTC	£24.00	£23.48	£24.32	£26.11	£27.14	£27.10	£27.76	£28.86	£27.62	£28.20	£28.05	£29.70	£31.29
(Income tax + NICs) - WTC	£31.59	£29.96	£30.51	£31.88	£32.09	£31.30	£31.03	£31.27	£29.46	£29.22	£28.63	£29.70	£30.46
(Income tax + NICs) - WTC	18.8%	17.5%	17.5%	18.2%	18.3%	17.6%	17.3%	17.3%	15.9%	15.6%	14.9%	15.2%	15.4%
Take-home pay	£103.90	£111.07	£114.53	£117.09	£120.86	£126.90	£132.79	£137.84	£145.53	£152.60	£160.30	£165.80	£171.61
at 2002/03 prices	£136.70	£141.73	£143.67	£142.94	£142.93	£146.55	£148.42	£149.37	£155.24	£158.13	£163.62	£165.80	£167.01
index (2002/03 prices)	100.0	103.7	105.1	104.6	104.6	107.2	108.6	109.3	113.6	115.7	119.7	121.3	122.2
<b>Married, no children (both working)</b>													
Income tax	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£2.42	£2.58	£2.86	£3.30
NICs	£3.27	£3.49	£3.58	£5.20	£5.52	£5.64	£6.14	£6.43	£4.12	£3.25	£2.60	£2.83	£3.60
Income tax + NICs	£3.27	£3.49	£3.58	£5.20	£5.52	£5.64	£6.14	£6.43	£4.12	£5.66	£5.18	£5.69	£6.90
Income tax + NICs	£4.30	£4.45	£4.49	£6.35	£6.53	£6.51	£6.86	£6.97	£4.39	£5.87	£5.29	£5.69	£6.72
Income tax + NICs	2.6%	2.6%	2.6%	3.6%	3.7%	3.7%	3.8%	3.9%	2.4%	3.1%	2.8%	2.9%	3.4%
Take-home pay	£124.63	£131.06	£135.27	£138.00	£142.48	£148.36	£154.42	£160.27	£169.04	£175.14	£183.17	£189.82	£196.00
at 2002/03 prices	£163.99	£167.25	£169.69	£168.47	£168.49	£171.33	£172.60	£173.67	£180.31	£181.48	£186.96	£189.82	£190.75
index (2002/03 prices)	100.0	102.0	103.5	102.7	102.7	104.5	105.2	105.9	110.0	110.7	114.0	115.7	116.3
<b>Married, two children (husband only working)</b>													
Income tax	£7.86	£7.04	£7.90	£9.74	£12.01	£11.42	£11.39	£11.82	£13.11	£17.72	£7.91	£8.88	£20.59
of which Children's tax credit												£10.17	..
NICs	£7.87	£8.33	£8.58	£9.76	£10.16	£10.52	£11.10	£11.55	£10.72	£10.48	£10.14	£10.65	£12.53
Child benefit	£16.13	£17.45	£18.10	£18.45	£18.85	£19.60	£20.05	£20.75	£24.00	£25.00	£25.85	£26.30	£26.80
FC/WFTC	£22.76	£25.00	£26.64	£30.30	£38.42	£40.45	£39.66	£41.29	£56.75	£82.02	£79.05	£81.83	..
WTC/CTC (from 2003/04)													£96.26
(Income tax + NICs) - (credits + CB)	£23.15	£27.07	£28.26	£29.25	£35.10	£38.11	£37.22	£38.67	£56.92	£78.82	£86.85	£88.59	£89.94
(Income tax + NICs) - (credits + CB)	£30.46	£34.55	£35.45	£35.71	£41.50	£44.01	£41.61	£41.90	£60.72	£81.67	£88.65	£88.59	£87.53
(Income tax + NICs) - (credits + CB)	18.1%	20.1%	20.4%	20.4%	23.7%	24.7%	23.2%	23.2%	32.9%	43.6%	46.1%	45.3%	44.3%
Take-home pay	£151.05	£161.62	£167.11	£172.45	£183.10	£192.11	£197.77	£205.37	£230.07	£259.62	£275.20	£284.09	£292.84
at 2002/03 prices	£198.75	£206.24	£209.63	£210.52	£216.52	£221.86	£221.06	£222.54	£245.42	£269.02	£280.90	£284.09	£285.00
index (2002/03 prices)	100.0	103.8	105.5	105.9	108.9	111.6	111.2	112.0	123.5	135.4	141.3	142.9	143.4

Table 13: Burden of direct taxes & real take home pay: **200%** of median earnings

	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	(projected gross earnings)	
												2002/03	2003/04
<b>Gross earnings</b>												£782.00	£811.70
current (cash) prices	£511.60	£538.20	£555.40	£572.80	£592.00	£616.00	£642.20	£666.80	£692.60	£723.20	£753.40		
<b>Single person, no children</b>													
Income tax	£112.06	£118.49	£124.89	£131.37	£136.51	£135.98	£138.07	£143.37	£148.41	£153.73	£160.37	£169.37	£179.08
} current prices	£31.46	£32.67	£33.88	£38.44	£39.36	£40.62	£41.54	£43.38	£43.40	£45.90	£48.80	£49.60	£57.83
WTC (from 2003/04)													£0.00
(Income tax + NICs) - WTC	£143.52	£151.16	£158.77	£169.81	£175.87	£176.60	£179.61	£186.75	£191.81	£199.63	£209.17	£218.97	£236.91
(Income tax + NICs) - WTC	£188.84	£192.89	£199.16	£207.30	£207.98	£203.94	£200.76	£202.37	£204.60	£206.86	£213.50	£218.97	£230.57
(Income tax + NICs) - WTC	28.1%	28.1%	28.6%	29.6%	29.7%	28.7%	28.0%	28.0%	27.7%	27.6%	27.8%	28.0%	29.2%
Take-home pay	£368.08	£387.04	£396.63	£402.99	£416.13	£439.40	£462.59	£480.05	£500.79	£523.57	£544.23	£563.03	£574.79
Take-home pay	£484.32	£493.88	£497.54	£491.96	£492.09	£507.44	£517.06	£520.20	£534.20	£542.52	£555.50	£563.03	£559.41
Take-home pay	100.0	102.0	102.7	101.6	101.6	104.8	106.8	107.4	110.3	112.0	114.7	116.3	115.5
index (2002/03 prices)													
<b>Married, no children (both working)</b>													
Income tax	£87.95	£89.31	£92.65	£97.69	£102.99	£101.92	£101.91	£105.81	£109.66	£114.98	£118.70	£124.13	£130.48
} current prices	£38.76	£40.88	£42.15	£48.16	£49.92	£51.84	£54.30	£56.44	£56.06	£57.12	£57.94	£60.40	£69.71
Income tax + NICs	£126.71	£130.19	£134.79	£145.85	£152.91	£153.76	£156.21	£162.25	£165.72	£172.10	£176.64	£184.53	£200.18
Income tax + NICs	£166.73	£166.13	£169.09	£178.05	£180.82	£177.57	£174.61	£175.82	£176.78	£178.33	£180.29	£184.53	£194.83
Income tax + NICs	24.8%	24.2%	24.3%	25.5%	25.8%	25.0%	24.3%	24.3%	23.9%	23.8%	23.4%	23.6%	24.7%
Take-home pay	£384.89	£408.01	£420.61	£426.95	£439.09	£462.24	£485.99	£504.55	£526.88	£551.10	£576.76	£597.47	£611.52
Take-home pay	£506.43	£520.65	£527.62	£521.21	£519.24	£533.81	£543.22	£546.75	£562.02	£571.04	£588.70	£597.47	£595.15
Take-home pay	100.0	102.8	104.2	102.9	102.5	105.4	107.3	108.0	111.0	112.8	116.2	118.0	117.5
index (2002/03 prices)													
<b>Married, two children (husband only working)</b>													
Income tax	£103.79	£107.80	£111.66	£124.75	£131.55	£130.81	£132.79	£137.89	£144.62	£153.73	£157.09	£167.08	£179.08
} <i>of which</i> Children's tax credit												£2.29	..
} current prices	£31.46	£32.67	£33.88	£38.44	£39.36	£40.62	£41.54	£43.38	£43.40	£45.90	£48.80	£49.60	£57.83
Child benefit	£16.13	£17.45	£18.10	£18.45	£18.85	£19.60	£20.05	£20.75	£24.00	£25.00	£25.85	£26.30	£26.80
FC/WFTC	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	..
WTC/CTC (from 2003/04)													£10.43
(Income tax + NICs) - (credits + CB)	£119.12	£123.02	£127.44	£144.74	£152.06	£151.83	£154.28	£160.52	£164.02	£174.63	£180.04	£190.38	£199.68
(Income tax + NICs) - (credits + CB)	£156.74	£156.97	£159.86	£176.70	£179.82	£175.34	£172.45	£173.95	£174.96	£180.95	£183.77	£190.38	£194.33
(Income tax + NICs) - (credits + CB)	23.3%	22.9%	22.9%	25.3%	25.7%	24.6%	24.0%	24.1%	23.7%	24.1%	23.9%	24.3%	24.6%
Take-home pay	£392.48	£415.18	£427.96	£428.06	£439.94	£464.17	£487.92	£506.28	£528.58	£548.57	£573.36	£591.62	£612.02
Take-home pay	£516.42	£529.80	£536.84	£522.56	£520.25	£536.04	£545.37	£548.62	£563.84	£568.42	£585.23	£591.62	£595.64
Take-home pay	100.0	102.6	104.0	101.2	100.7	103.8	105.6	106.2	109.2	110.1	113.3	114.6	115.3
index (2002/03 prices)													



Table 14: Burden of direct taxes & real take home pay: **500%** of median earnings

											(projected gross earnings)		
	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
<b>Gross earnings</b>													
current (cash) prices	£1,279.00	£1,345.50	£1,388.50	£1,432.00	£1,480.00	£1,540.00	£1,605.50	£1,667.00	£1,731.50	£1,808.00	£1,883.50	£1,955.10	£2,029.40
} current prices	£417.89	£441.41	£458.13	£475.05	£491.71	£505.58	£523.39	£543.45	£563.97	£587.65	£612.41	£638.61	£666.16
} current prices	£31.46	£32.67	£33.88	£38.44	£39.36	£40.62	£41.54	£43.38	£43.40	£45.90	£48.80	£49.60	£70.00
WTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£0.00
(Income tax + NICs) - WTC	£449.35	£474.08	£492.01	£513.49	£531.07	£546.20	£564.93	£586.83	£607.37	£633.55	£661.21	£688.21	£736.16
(Income tax + NICs) - WTC	£591.25	£604.96	£617.19	£626.85	£628.02	£630.77	£631.46	£635.92	£647.88	£656.48	£674.90	£688.21	£716.46
(Income tax + NICs) - WTC	35.1%	35.2%	35.4%	35.9%	35.9%	35.5%	35.2%	35.2%	35.1%	35.0%	35.1%	35.2%	36.3%
Take-home pay	£829.65	£871.42	£896.49	£918.51	£948.93	£993.80	£1,040.57	£1,080.17	£1,124.13	£1,174.45	£1,222.29	£1,266.89	£1,293.24
Take-home pay	£1,091.65	£1,111.98	£1,124.57	£1,121.29	£1,122.15	£1,147.69	£1,163.10	£1,170.51	£1,199.12	£1,216.95	£1,247.60	£1,266.89	£1,258.62
Take-home pay	100.0	101.9	103.0	102.7	102.8	105.1	106.5	107.2	109.8	111.5	114.3	116.1	115.3
<b>Married, no children (both working)</b>													
Income tax	£312.08	£331.39	£347.63	£370.68	£386.46	£389.99	£399.31	£414.63	£431.54	£452.11	£471.42	£495.18	£520.56
NICs	£62.92	£65.34	£67.76	£76.88	£78.72	£81.24	£83.08	£86.76	£86.80	£91.80	£97.60	£99.20	£111.32
Income tax + NICs	£375.00	£396.73	£415.39	£447.56	£465.18	£471.23	£482.39	£501.39	£518.34	£543.91	£569.02	£594.38	£631.88
Income tax + NICs	£493.42	£506.25	£521.07	£546.37	£550.10	£544.20	£539.19	£543.32	£552.92	£563.59	£580.79	£594.38	£614.97
Income tax + NICs	29.3%	29.5%	29.9%	31.3%	31.4%	30.6%	30.0%	30.1%	29.9%	30.1%	30.2%	30.4%	31.1%
Take-home pay	£904.00	£948.77	£973.11	£984.44	£1,014.82	£1,068.77	£1,123.11	£1,165.61	£1,213.16	£1,264.09	£1,314.48	£1,360.72	£1,397.52
Take-home pay	£1,189.48	£1,210.68	£1,220.68	£1,201.77	£1,200.07	£1,234.27	£1,255.37	£1,263.10	£1,294.08	£1,309.84	£1,341.70	£1,360.72	£1,360.12
Take-home pay	100.0	101.8	102.6	101.0	100.9	103.8	105.5	106.2	108.8	110.1	112.8	114.4	114.3
<b>Married, two children (husband only working)</b>													
Income tax	£404.66	£428.18	£444.90	£468.43	£486.75	£500.41	£518.11	£537.97	£560.18	£587.65	£612.41	£638.61	£666.16
of which Children's tax credit	..	..	..	..	..	..	..	..	..	..	..	..	..
NICs	£31.46	£32.67	£33.88	£38.44	£39.36	£40.62	£41.54	£43.38	£43.40	£45.90	£48.80	£49.60	£70.00
Child benefit	£16.13	£17.45	£18.10	£18.45	£18.85	£19.60	£20.05	£20.75	£24.00	£25.00	£25.85	£26.30	£26.80
FC/WFTC	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00	£0.00
WTC/CTC (from 2003/04)	..	..	..	..	..	..	..	..	..	..	..	..	£0.00
(Income tax + NICs) - (credits + CB)	£419.99	£443.40	£460.68	£488.42	£507.26	£521.43	£539.60	£560.60	£579.58	£608.55	£635.36	£661.91	£709.36
(Income tax + NICs) - (credits + CB)	£552.62	£565.81	£577.88	£596.25	£599.86	£602.18	£603.15	£607.49	£618.24	£630.58	£648.51	£661.91	£690.38
(Income tax + NICs) - (credits + CB)	32.8%	33.0%	33.2%	34.1%	34.3%	33.9%	33.6%	33.6%	33.5%	33.7%	33.7%	33.9%	35.0%
Take-home pay	£859.01	£902.10	£927.82	£943.58	£972.74	£1,018.57	£1,065.90	£1,106.40	£1,151.92	£1,199.45	£1,248.14	£1,293.19	£1,320.04
Take-home pay	£1,130.27	£1,151.13	£1,163.87	£1,151.89	£1,150.31	£1,176.29	£1,191.41	£1,198.93	£1,228.76	£1,242.86	£1,273.98	£1,293.19	£1,284.71
Take-home pay	100.0	101.8	103.0	101.9	101.8	104.1	105.4	106.1	108.7	110.0	112.7	114.4	113.7

## Appendix 5: Bibliography & links

HM Treasury, *Economic & Fiscal Strategy Report and Financial Statement & Budget Report 2003* (the ‘Red Book’), 9 April 2003 [HC 500 2002/03]; see [http://www.hm-treasury.gov.uk/budget/bud\\_bud03/bud\\_bud03\\_index.cfm](http://www.hm-treasury.gov.uk/budget/bud_bud03/bud_bud03_index.cfm)

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National Statistics, “The effects of taxes and benefits on household income 2001-02”, *Economic Trends No 594*, May 2003; see [http://www.statistics.gov.uk/articles/economic\\_trends/ET\\_May03\\_Lakin.pdf](http://www.statistics.gov.uk/articles/economic_trends/ET_May03_Lakin.pdf)

OECD, *Revenue Statistics 1965-2001*, 2002; full publication not freely available online – see <http://www.oecd.org/dataoecd/6/63/1962227.pdf> for selected tables

OECD, *Taxing Wages 2001-2002*, 2003; full publication not freely available online – see <http://www.oecd.org/dataoecd/26/29/2495248.pdf> for selected results

*Also refer to past editions of this paper, most recently:*

Library Research Paper 02/43, *The Burden of Taxation*, 09 July 2002; see <http://www.parliament.uk/commons/lib/research/rp2002/rp02-043.pdf>

Library Research Paper 01/51, *The Burden of Taxation*, 10 May 2001; see <http://www.parliament.uk/commons/lib/research/rp2001/rp01-051.pdf>

### Websites of interest:

*Eurostat* <http://europa.eu.int/comm/eurostat/>

*HM Treasury* <http://www.hm-treasury.gov.uk>

*Inland Revenue:*

Statistics: <http://www.inlandrevenue.gov.uk/stats>

Tax Credits home: <http://www.inlandrevenue.gov.uk/menus/credits.htm>

Technical Manual: <http://www.inlandrevenue.gov.uk/manuals/tctmanual/contents.htm>

Rates/Allowances: <http://www.inlandrevenue.gov.uk/rates/taxcredits.htm>

*Institute for Fiscal Studies* <http://www.ifs.org.uk>