TOP INCOMES

GLOBAL

A

PERSPECTIVE

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8

Trends in Top Income Shares in Finland

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8.1 INTRODUCTION

This chapter provides new evidence about the evolution of top incomes in Finland based both on tabulated income tax data for 1920–2003 and on micro-data over the period 1966–2004. The chapter shows how the proportion of income earned by the very richest 1 per cent has changed over time. We find a U-shaped pattern of the income share of top 1 per cent over the period from the beginning of 1960 to 2004. The results bring out clearly how the major equalization from the beginning of 1960 to the mid 1990s has been reversed, taking the shares of top income groups back to levels of inequality or even higher found over forty years ago.

There are a number of different ways of measuring inequality. Each provides a different kind of summary of the difference between the poor and the rich. The most commonly used summary measure of inequality is the Gini coefficient. The rapid growth in income inequality over the latter part of the 1990s in Finland is the most important feature of the changes in the Gini coefficient over the last forty years. Figure 8.1 shows that over the 1960s and 1970s the Gini coefficient declined, then remained almost constant until the turning point in the beginning of the 1990s. The rise in the Gini coefficient that started around the mid 1990s accelerated over the latter part of the 1990s. The increase has been the fastest income inequality growth in the modern Finnish economic history. These developments of the past ten or fifteen years have to be viewed in the light of the longer-run evolution of the income distribution in Finland.

The aim of this chapter is to document trends in income inequality in Finland over the period 1920–2004. We look more closely at changes in inequality by considering how income changes at the upper end of the income distribution have driven the rising movement in the Gini coefficient. In particular, we look at the share of total income held by groups at the upper ends of the distribution. This chapter also focuses on how far our income tax system has been responsible for changes in top income shares over the last ten years. How far are changes in top income shares a reflection of the rearrangement of income? How far are they associated with changes in redistribution of the tax system?
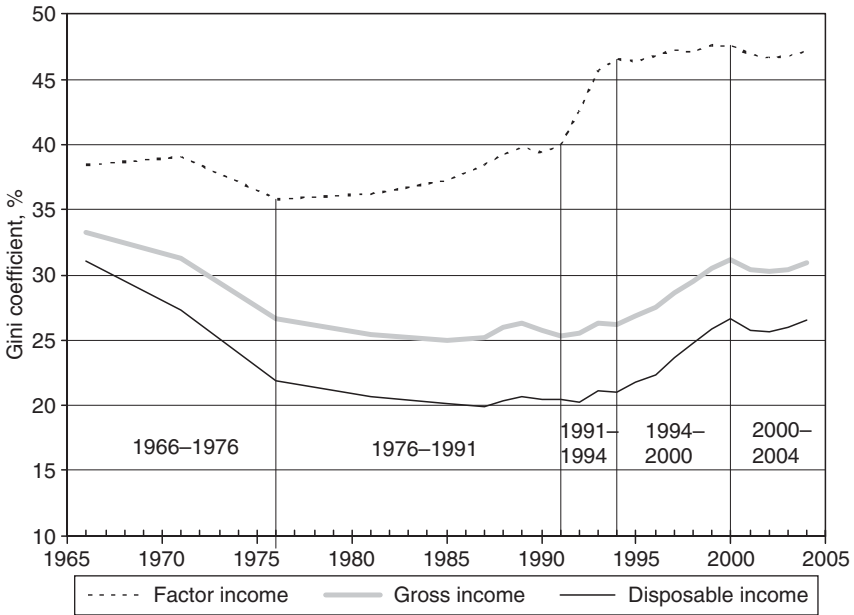
Figure 8.1 Gini coefficients in Finland, 1966 2004

Sources: Based on IDS data in 1987–2004 and HES data in 1966–85, Statistics Finland.

There has been among economists and other social scientists a recent upsurge of interest in advanced countries at the top of the income and wealth distribution. Recent studies, starting with Piketty (2003) for France, have used income tax statistics to examine long-run trends in top incomes in various countries—notably Atkinson (2002) for the UK, Atkinson and Salverda (2003) for the Netherlands, Piketty and Saez (2003) for the USA, Saez and Veall (2003) for Canada. Our estimated top shares in turn come both from tax data over the period 1920–2003 and from microeconomic surveys on income and expenditure from 1966 to 2004.

The structure of the chapter is as follows. Section 8.2 describes the data used in this study. Section 8.3 reports evidence on changes in income levels, its distribution, and top incomes 1920–2003. Section 8.4 summarizes the evidence about the top of the income distribution that can be derived from micro-data over the period 1966–2004, with a subsection devoted to summarizing changes in the composition of incomes, possible explanations of the observed changes in the distribution, and a subsection showing the impact of income tax system. In section 8.5, we discuss the role of income mobility. Section 8.6 concludes.

8.2 DATA AND METHODS

Tabulated Income Data from Tax Tables, 1920–2003

In this section, we describe the sources for the long series in income distribution starting in 1920 (see Table 8A.8). We focus on the definition of income, the tax system, and the compilation of the tables. Since the data cover a considerable period of time, we emphasize changes in the methods across time.

The data stem from Statistics of Income and Property, a publication series by Statistics Finland that started with the advent of the first modern law on income and wealth taxation in 1920 (Statistics Finland 1920–2003). Statistics of Income and Property contain on a semi-annual basis grouped data on the distribution of taxable income. The use of these in producing time series should be viewed with some caution. The statistics cover only those incomes and those units subject to taxation that the current laws stipulate. Changes in tax laws are likely to lead to changes in income distribution thus measured.

We present two sets of time series on income distribution after 1920, namely (a) *taxable income among the population of tax units* for 1920–92 and (b) *income subject to taxation among all adults* for 1949–2003. The sources from 1920 onward give *taxable income of taxed tax units*, from which we get the distribution among the population of tax units by augmenting the series with an estimate of the total number of tax units. 'Taxable income' consists of 'income subject to taxation' less income deductions. We thus have two time series of income distributions, defined with respect to the rules governing central government ('state') taxation at the time the data are gathered. The definition of what income is subject to *municipal taxation* and what deductions are allowed differs from central government taxation and varies across the years.

Definition of Income

The concept of income, both as defined and as included in the publications, has undergone substantial changes across the years. In 1920, only income that was taxed was reported in the published tables. Starting in 1949, the published tables included both the sum of all income sources and taxed income. This was further refined in 1969 when the modern concept of income subject to taxation was introduced (we have transformed data prior to that year to conform to this notion). *Income subject to taxation* is distinct from *taxable income*, the part of the income that is actually taxed. The difference consists of different exemptions. These include the basic deduction, i.e. the threshold at which tax units start paying taxes, and various other deductions, some for social reasons such as having dependent children.

The definition of income subject to taxation has undergone some change over time. In principle, the income concept includes all form of money income that

accrues to the household during the tax year (which coincides with the calendar year throughout the period), except for some social transfers and a few other items. The concept includes in principle:

- labour income, consisting of wages and salaries fringe benefits, including lodging
- earnings-related pension income and other income
- agricultural and forest income
- self-employment income
- property income
- social transfer income (in part and during part of the period).

Major changes over the years are listed in Table 8.1. The overall tendency is for income subject to taxation to become more inclusive over time, in part by having

Table 8.1 Major changes to definition of income and taxation in Finland

1920	Inheritance and gifts exempted
	Income from abroad taxed in Finland
1924	Agricultural income assessments defined and standardized
1935	An additional tax of 20% on the tax amount on persons over 24 years old with no guardian obligations
1937 1942	An additional tax of 20% on the tax amount for defence purposes
1950	Bank deposits and their interest exempt from taxes
1957	Additional taxes on high incomes introduced
1958	Additional taxes on high incomes abolished
1964	An additional tax of 20% on the tax amount on income and sailor's tax introduced
1968	Changes in the assessment of property income, lower threshold considerably increased
1969	New law on taxation of assets from trade and profession, income and losses could be periodized over several years
1975	A forest premium was introduced
	The taxation of income and property was made more uniform
1976	Two separate progressive scales ('A' and 'B') abolished and a new single scale introduced
1980	The scale for property income lowered
1983	National pensions (base and addition) no longer exempted from income subject to taxation
1985	Other income sources brought within taxation: unemployment benefits, support for home care of children, social assistance for entrepreneurs, aid to students, sick pay, maternity allowance
1986	Sailors' income taxes as other persons'
1987	Other income source brought within taxation: pension and basic daily sick allowance, student aid to adults, certain other daily allowances and payments
1989	Fringe benefits and capital gains subject to taxation
	Agricultural income reformed, area subsidies subject to taxation
1992	Student aid to university students subject to taxation
	Strike pay subject to taxation
1993	Major reform of property income; capital gains taxed at same rate as other property income, imputed rents from owner occupied housing exempted
1996	The property income tax rate raised from 25 to 28%

previously untaxed sources become subject to taxation and in part by new types of income becoming included when they become available. As some income sources in any given year are not included in the published tables, income levels in the statistics are too low. An important case in point is the national old-age pension, which was included in income subject to taxation in 1983. Some social transfers, such as child and housing allowances, are still not taxable. Other incomes exempted from taxation are scholarships and some pensions. For example pensions for war veterans are not subject to taxation. Even some types of factor income are not included in taxable income over most of the period, the main one being interest paid on deposit accounts.

The way in which a given income source is assessed for tax purposes has also changed across time. An important example prior to the Second World War is agricultural and forest income, which is widely believed to have been assessed at very low values. In part this is due to the low degree of monetization in the 1920s, in part because fringe benefits (which were hard to value) were a major part of agricultural labour income. The assessment of agricultural income underwent a substantial change in 1969 which increased the tax assessments of those incomes. Another case whose tax assessments may at times depart substantially from their true values is property, whose tax values tend always to be much lower than the market value but where this difference can vary quite substantially across time.

Deductions

The number of, reasons for, and amounts of tax deductions have changed a lot across the years. The following highlights some of these changes that are of particular distributional interest.

Prior to 1924, the tax law was not very specific about deductions except for the basic tax threshold. That year the tax code was amended to clarify a number of details. If both spouses were working, half of the income of the one earning less was deductible up to a limit of FIM 8,000. Income earners with dependent children (less than 15) could deduct FIM 2,500 per child. The deduction for dependent children has been subject to a very large number of changes across the years. For instance, from 1951 onwards, the deduction for the second and later children was doubled in size.

Other income exemptions for social reasons have been introduced. In 1956, an old-age deduction was enacted to apply at first for those aged 67 and older, and later extended to apply to those 65 and older. In 1957, the dependent child exemption was extended to unmarried persons (with children, of course). Another important deduction, the deduction for a spouse, has undergone many changes over the years, especially when separate taxation of married couples' income was introduced. In 1975, the spouse deduction could only be applied if the couple had children and it was abolished in 1989.

Exemptions and deductions based on household characteristics are by no means the only ones that applied. From 1926, tax units in areas determined to

have high living costs were allowed to make deductions. Starting in 1947, interest income from some types of deposit accounts and bonds were exempted from taxable income. Starting in 1956, 15 per cent of all dividend income was exempted from taxation.

Other exemptions further include a so-called 'per cent deduction', which from 1957 allowed all persons with incomes from labour, property, agriculture, and/or forestry to make a 10 per cent deduction from taxes. This was later increased to 15 per cent for those with incomes below FIM 1,000,000.[1] From 1969, losses due to the practice of trade and profession could be deducted, and from 1975 also interest paid on some debts could be subtracted from income subject to taxation.

Many exemptions were abolished in 1989 as part of a major overhaul of tax laws. Those exemptions include exemptions due to having children in education, lone-parent exemptions, and a property tax deduction for entrepreneurs.

Tax Units

One major issue with the published data is that in the longest series, on tax units, the unit has undergone several changes. Finland introduced separate taxation of married couples in 1935. At that point, the data also take as the tax unit the person rather than the couple. Separate taxation was abolished in 1943, at which point the data revert to the use of couples as the unit. Separate taxation was reintroduced in 1976. Thus, married couples are treated as one tax unit from 1920 to 1934, as two units from 1935 to 1942 during the first period of separate taxation, and as one from 1943 to 1975, after which separate taxation was reintroduced.

However, in the tables of income subject to taxation per income recipient, married persons are counted individually from 1952 onwards. Joint taxation is only taken into account for taxable income per tax unit. On the other hand, tables for professional categories reported the incomes and taxes for men and women separately as early as in 1926.

Between 1947 and 1975, private persons can in the tables be either physical persons, persons who are jointly taxed, or undivided estates. Persons who are jointly taxed are so because they are jointly self-employed, such as those who jointly operate a farm. These should be distinguished from jointly taxed married spouses. The concept (i.e. jointly taxed) was introduced in 1921, and until 1947 such units were defined as belonging to the group corporations. After 1975, jointly taxed persons are no longer a single taxable unit and undivided estates are in turn defined as corporations.

Before 1949, only those whose taxable income exceeded the threshold for paying taxes were tabulated. At that time, all income earners who filed tax

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[1] From 1963, the Finnish markka equalled 100 old markka and the old markka became penni. From 1999, the Finnish currency was linked to the euro, and from 2002 the markka and penni were replaced by the euro.

declarations were included in the published tables, except for those with only property income below the taxable threshold—they were included in the published tables in 1961. One consequence of not having untaxed units in the tables at all prior to 1949 is that variations in the rate of inflation generate substantial variation in the number of units taxed. When inflation is high, the tax schedules tend to creep up, making more units subject to taxation.

It is important to bear in mind, especially when considering the distribution in the whole population, that part of those with very low incomes worked only part time and especially during only part of the year. For instance, students who work only during the summer vacation tend to earn some income subject to taxation but typically not enough to pay taxes. The level of income inequality recorded is for this and other reasons substantially higher than when incomes are pooled within households, as is typically done in micro-data-based studies.

Other Changes in Statistics

Until 1945, almost the entire population liable to taxation is included in the material used for tabulations. That year, because of the increase in the number of units taxed, the tables were constructed on the basis of a statistical sample. Sampling was used until 1969 when the use of computers made it possible to return to tabulating the full population. This did not apply to the jointly taxed and undivided estates, as these were not included in the register, so these groups were sampled until 1975. At that time, as mentioned above, the jointly taxed ceased to be a single taxable unit and undivided real estates were defined to be corporations.

The sample was drawn in different ways, listed in Table 8.2, across the years. Note that during the period when a sample-based survey was made, spouses were jointly taxed and therefore considered as one unit. Tax return forms were used as the primary material before computerized registers became available. As to control the material, tax rolls were used. In 1969, a computerized register, based on the tax authority records, was taken into use.

The Population

An important complication is that for the data on taxable income among tax units, the total number of tax units is unknown. The distribution is truncated, as we only know the number of tax units whose income exceeds the lower limit of taxable income. The tax unit before the introduction of separate taxation in 1935 (and after it was abolished in 1943) was the family and each income earner during separate taxation. There are no census counts or survey information on the total number of families—which presumably could be used with the number of single persons to approximate the population of tax units—before the war. In principle,

Table 8.2 Changes in the construction of income statistics in Finland

1945	Helsinki was treated differently from rest of Finland. 20% of all private persons from Helsinki were in the sample. The rest of the sample was made by choosing some towns and districts in Finland as representatively as possible. 20% of the population outside Helsinki was included in the sample.
1947	
Income > 500,000 mk	all persons (under one percent of the whole population) included
Income < 500,000 mk	every tenth person included
1952	
Income > 900,000 mk	all persons included
300,000 mk 899,999 mk	every tenth person included
Income < 300,000 mk	every twentieth person included
1960	
Income > 2,000,000 mk	all persons included
800,000 mk 1,999,000 mk	every fifth person included
400,000 mk 799,000 mk	every tenth person included
1,000 mk 1,999,000 mk	every twentieth person included
1963	
Income > 29,999 mk	all persons (note the monetary reform in 1961)
10,000 mk 29,999 mk	every fifth person included
5,000 mk 9,999 mk	every tenth person included (applies to all persons with sailors' income)
1,000 mk 4,999 mk	every twentieth person included

it should be possible to approximate this population by taking the adult (defined, currently, as those 15 years and older) population and subtracting from it the number of married women. This, indeed, is what we resort to when estimating the statistics for the full population of tax units.

Summary

The changes to the published tables that underlie the series are large and whether or not they capture a real time series is open to debate. Many of the changes cannot be dealt with by adjustments of any sort. The one issue that is looked into below concerns changes in the proportion of the population that is covered by the tables. That is, different ways are used to try to look into the distribution of income among the whole adult population.

Estimation

The data used in this chapter are tabulations of *taxable income among taxed tax units* or *income subject to taxation among those declaring incomes*. The latter will

for all practical purposes be treated as the whole population. In both cases, we know the class limits, the distribution of income-receiving units across those classes, as well as mean income within the class. There are three broad approaches to estimating income distribution functionals from grouped data. First, it is possible to estimate various income distribution functionals directly on the basis of the grouped data. Such an approach allows us to estimate for each year of data such things as means and variances, inequality indices, and even more detailed objects, such as Lorenz curves, albeit at a fairly coarse level. One can also think of the estimation first in terms of how to represent and estimate the distribution function for the data. A second approach is to estimate the distribution function non-parametrically, use that estimate to generate income quantiles. Third, given a suitable parametric distribution function, one can estimate the parameters and generate all functionals on the basis of those estimates. Each of these approaches is associated with advantages and disadvantages. In this chapter, we follow standard practice in the study of top incomes and use the grouped data approach (Atkinson 2007).

The simplest option to using the grouped data is to let the distribution be represented by the step function (Klugman, Panjer, and Willmot 1998):

$$F_n(x) = \frac{(b_j - x)F_n(a_j) + (x - a_j)F_n(b_j)}{b_j - a_j}, \ x \in [a_j, b_j), \ j = 0, 1, \ldots, J, \quad (1)$$

with $F_n(x) = 0, \ x < a_0$ and $F_n(x) = 1, \ x > b_J$.

However, we have one additional piece of information to what is included above, namely the within-group average incomes. We therefore follow Cowell and Mehta (1982) and split each class into two pieces at the class mean, the so-called 'split histogram' approach. The split histogram takes a point in the interval $[a_j, b_j]$ and splits the distribution function in two at that point. As we use the class means, we force the histogram to pass through these points. The distribution function then becomes

$$F_n(x) = \begin{cases} \frac{(x - x)F_n(a_j) + (x - a_j)F_n(x_j)}{x_j - a_j} & x \in (a_j, x_j) \\ \frac{(b_j - x)F_n(a_j) + (x - x_j)F_n(b_j)}{b_j - x_j} & x \in (x_j, b_j) \end{cases} j = 0, 1, \ldots, J, \quad (2)$$

where $F_n(x) = 0, \ x < a_0$ and $F_n(x) = 1, \ x > b_j$ and where the value of the distribution function at x_j is

$$F_n(x_j) = \frac{x_j - a_j}{b_j - a_j}F(a_j) + \frac{b_j - x_j}{b_j - a_j}F(b_j) \quad (3)$$

Using the split histogram approach gives a distribution function that consists of $2(J + 1)$ linear segments and is a simple way to combine information on both the within-class means and the distribution of units across all classes.

When we are working with the distribution of taxable income, we only know the number of tax units that had income above the threshold for taxable income. That is, we do not in fact know the number of units in the lowest class nor do we know what their average income is, i.e. n_0 and $\overline{x_0}$ are unknown to us. It follows that the true total number of tax units as well as total income is unknown. Our estimate of the total number of tax units is the adult population (defined as those who are more than 20 years old) less the number of married women. The number of untaxed tax units n_0 is estimated to be the difference between this estimated total and the number of taxed tax units $\hat{n} - \sum_{j=1}^{J} n_j$. We take the class midpoint in the lowest interval as our estimate of within-class average income. Our estimate of total taxable income is the sum total of the published table plus the estimated income of all untaxed units, which equals the number of untaxed units times their class midpoint.

The top interval in all years is open. We impute the highest income to be the 99th percentile of a fitted Pareto distribution in the top income class, using the lower bound and the mean in the top class to estimate the Pareto coefficient.

1966–2004 from Micro-Data

We use the Income Distribution Surveys (IDS) and Household Expenditure Surveys (HES) published by Statistics Finland. These surveys are representative national samples. The Household Survey is conducted for the purpose of computing the weights in consumer price index. We use HES sample data for 1966, 1971, 1976, 1981, and 1985. HES contain detailed information on households' incomes, expenditures, and characteristics. Personal income information of the Household Expenditure Surveys is collected from various registers, such as records of the tax boards and the social security administration. The IDS, from 1987 to 2004, in turn is a sample survey of around 9,000–12,000 households drawn from the private households in Finland (see Table 8A.10). The IDS contains information on personal incomes, taxes, and benefits together with various socio-economic characteristics of the Finnish households. Most of the information contained in the IDS has been collected from various administrative registers. Auxiliary information is collected through interviews. Each household is included in the sample for two consecutive years so that every year half of the total sample is based on a new panel. The following components of disposable income are used in this study:

  labour income (wages and salaries)
  +   entrepreneurial income
  =   earned income (primary income)
  +   capital income (= dividends + interest income + rental income + imputed net rents of owner-occupied dwellings + realized capital gains)
  =   factor income
  +   current transfers received

=   gross income
−   current transfers paid (= state earned income tax + state capital income tax + property tax + other taxes + other current transfers paid incl. social security contributions)
=   disposable income

Realized capital gains were only part taxable before the 1993 tax reform. Imputed rents of owner-occupied dwellings are not taxable. Therefore we checked the sensitivity of results to the exclusion of capital gains and imputed rents. All types of income used in this study concerning IDS and HES data are calculated on an annual basis. The OECD equivalence scale is used in order to make comparable income earners living in households with different size and composition.[2]

Indirect taxes, such as VAT and specific commodity taxes and the provision of public services, are not included in our data. This may have important consequences, because indirect taxes and public services tend to be regressive (see for example Sullström and Riihelä 1996; Suoniemi 1993; Jäntti 2004).

8.3 TRENDS IN TOP INCOMES: INCOME TAX TABLES 1920–2003

Changes in Real Income 1920–2003

We start by comparing the estimates from the tabulated data on taxable income and income subject to taxation to National Accounts data. There is, unfortunately, no consistent series of national income for the household sector that covers the period we are studying and even the gross domestic product (GDP) and gross national income (GNI) consistently cover only part of the period. The historical National Accounts series end in 1997. Panel A in Figure 8.2 shows the total income for the two series as a share of gross domestic product starting in 1920, and Panel B shows total income from the tax tables as a share of GNI starting in 1960, the first years of each National Accounts series. It is important to keep in mind that these National Accounts data are not limited to the household sector. While the National Accounts household sector covers some non-household units such as non-profit organizations, these data apply to the whole economy. This means that changes across time in total household taxed or taxable income relative to National Accounts aggregates reflect also changes in the sectoral distribution of income.[3]

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[2] The OECD equivalence scale is calculated as follows. The first adult in each household has a weight of 1 and each additional adult a weight of 0.7. Each child under 18 years old gets a weight of 0.5.

[3] The United Nations Yearbooks of National Accounts provide estimates of the national income of the household sector starting in 1953, but not earlier. A comparison of the ratio of the tax data to those estimates yields qualitatively similar conclusions to those drawn here for the GDP comparison. The variability of the ratio is very large and largely coincides with the estimates shown here.

(a)   Income relative to GDP

(b)   Income relative to GNI

- - - - - Taxable income/population   —— Income subject to taxation
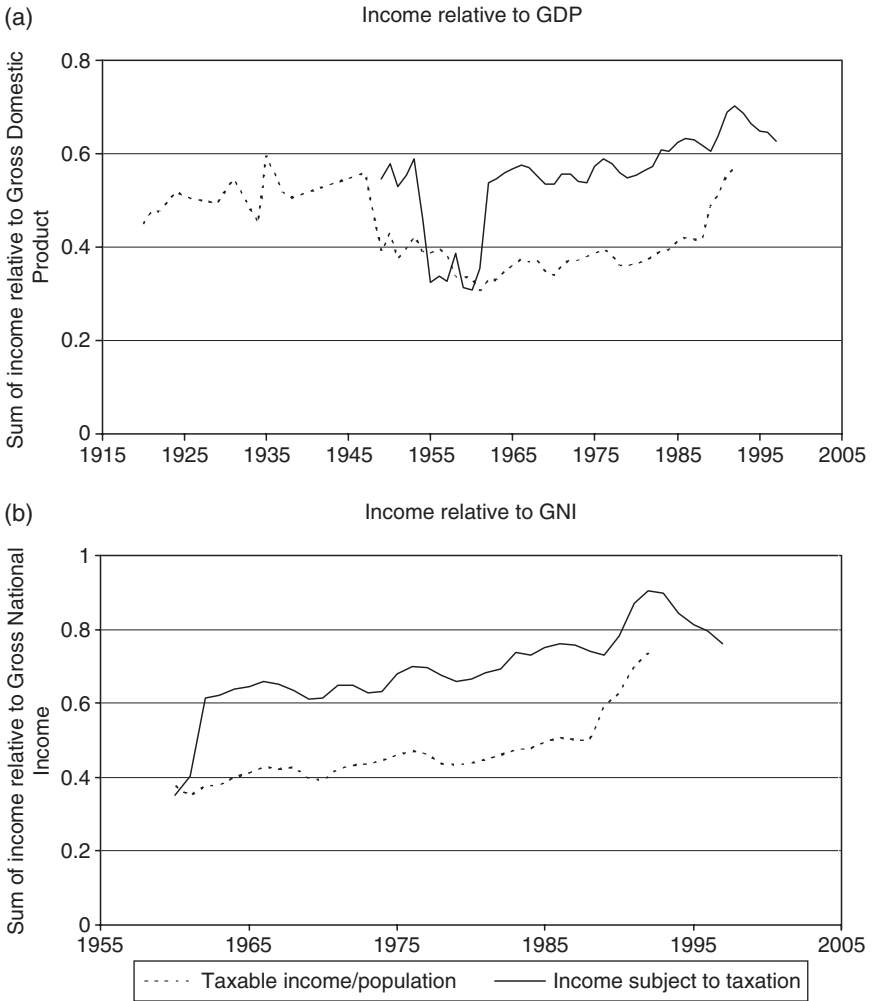
Figure 8.2 Total income from tables relative to national accounts aggregate in Finland

Taxable income was about 50 per cent of GDP between 1920 and 1939. Income subject to taxation drops suddenly in 1955 until 1962 by about 20 percentage points relative to GDP. It is not clear why this drop occurs and why it does not occur for taxable income. The late 1950s however were a very turbulent time in the Finnish economy and this divergence may be related to frequent industrial unrest (see, e.g., Jäntti, Saari, and Vartiainen 2006). After 1960, both Panels suggest total income increased as a share of GDP. The gap between total income subject to taxation and taxable income across tax units was quite substantial, being close to

and above 20 per cent until the late 1980s when the gap became much narrower. Prior to 1960, the picture looks quite different.

The estimated proportion of tax units whose income is less than the minimum taxable amount, shown in Panel A of Figure 8.3, exhibits a sharp discontinuity around the time of the Second World War. In 1947, the first year after the Second World War, the threshold for taxable income had been lower so that virtually all tax units were brought into taxation and taxed income represented about 55 per cent of GDP. This large increase in the taxed population is driven both by the post-war resettlement of Karelian immigrants and by the need to finance both reconstruction and war reparations.

The proportion who were not taxed also varied considerably from year to year before the Second World War. Interestingly, the proportion that were not taxed increased substantially after the war, being around three-quarters of the population in 1960. After that the proportion of the population that was covered by taxes increased quite sharply. In 1992, the year our series on taxable income ends, about one in three tax units—at that point, persons—were not paying any taxes in state taxation (the threshold for municipal taxation tends to be lower, so many of these persons were probably paying municipal taxes). Panel B of Figure 8.3 shows how the real value of the threshold for taxable income and the proportion that is not taxed co-vary. The relationship is, as might be expected, steeply negative, but with large shifts from time to time.

Figure 8.4 compares the growth in GDP per capita (measured as the first differences in the ln of GDP per capita) with changes in estimated average income in each of the three series estimated from grouped data. The figure also shows a non-parametric smooth of the GDP per capita growth rate. While there are some quite substantial differences in the sets of series the correspondence is close enough to warrant some confidence. A notable exception is the period 1939–45, during which GDP per capita and personal income move in quite different directions. This is explained by the war economy, when much of GDP was diverted to military resources. For most of the period covered by the series, the income series follow changes in GDP per capita with a lag and perhaps a slightly smaller variability.

We show in Figures 8.5 and 8.6 the estimated average and median income for our two series. Taxable income among tax units is always higher than taxable income among the population (a gap which is of course sensitive to our assumption about mean income in the non-taxed part of the distribution). The growth rate in these two varies but is after the early 1960s reasonably stable. Income subject to taxation tracks taxed income among the population reasonably well and is of a similar magnitude. The difference between these two consists primarily of deductions, so one might expect them to be reasonably similar.

To conclude this discussion of changes in levels of real income and the relation of the tabulated income data to National Accounts aggregates, we note that deficiencies in the available data—in particular, the absence of reliable estimates of the total number of tax units, on the one hand, and the absence of household sector National Accounts aggregates, on the other—make it difficult to know

(a)

Proportion of tax units below tax threshold

(b)

Proportion of tax below tax threshold and the tax threshold
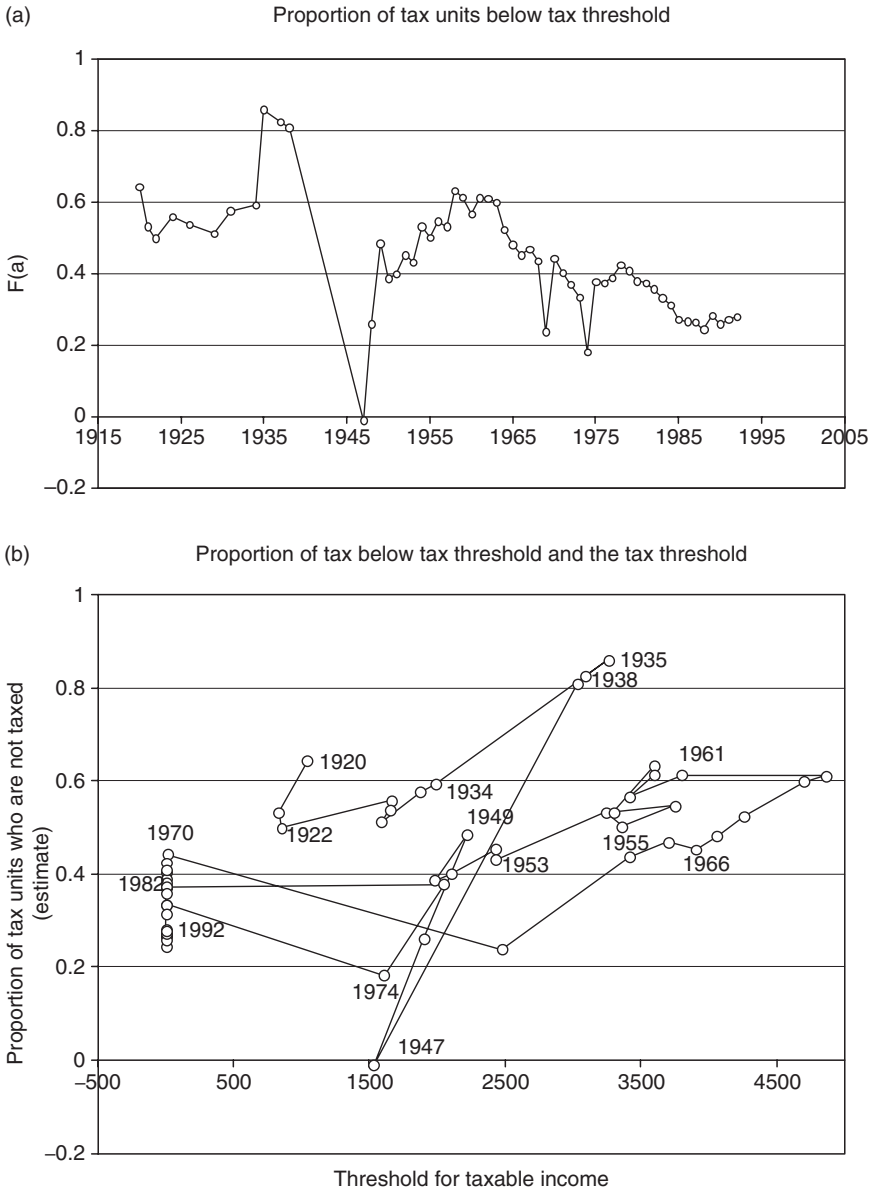
Figure 8.3 The estimated proportion of tax units not covered by tables for taxable income across time and the minimum threshold for taxation in Finland

Income subject to taxation

Taxable income/population
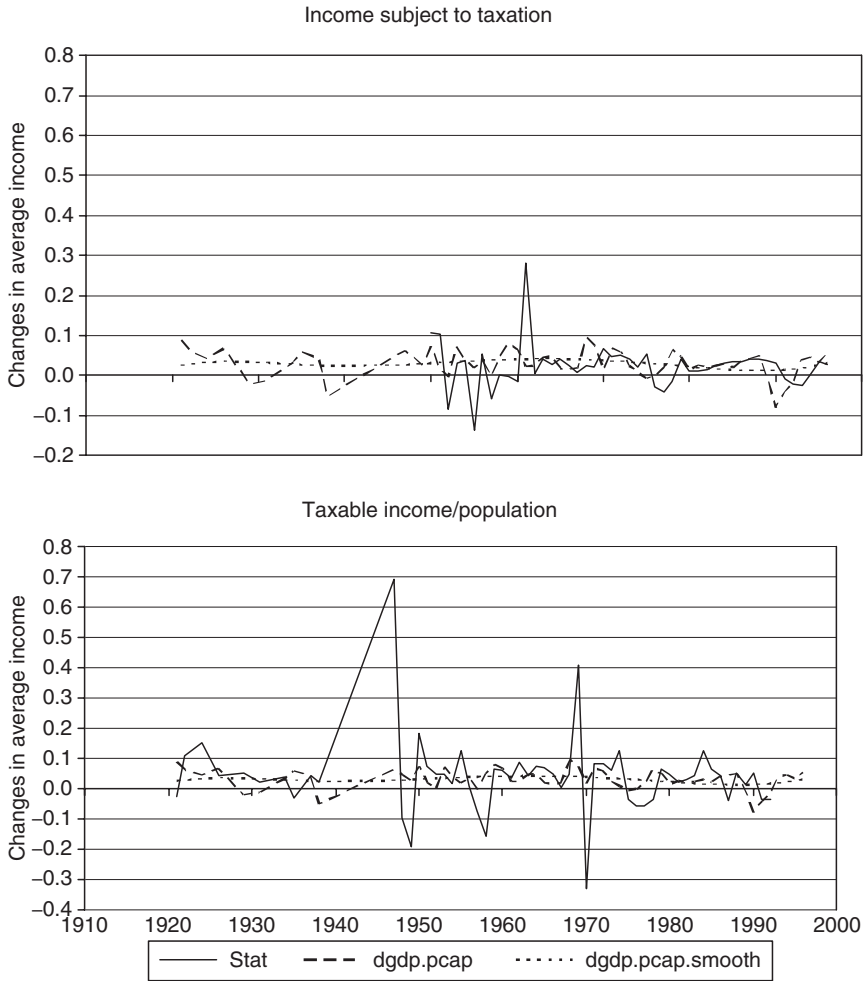
Figure 8.4 Growth in GDP per capita compared to growth in mean income in Finland

exactly how high quality our series are. The reasonable stability and similarity of series' mean and median income lend us confidence in the series.

Overall Inequality and Top Incomes

Figure 8.7 shows the Gini coefficients for our two series across time. The pattern across time in the Gini coefficients suggests roughly three phases in relative
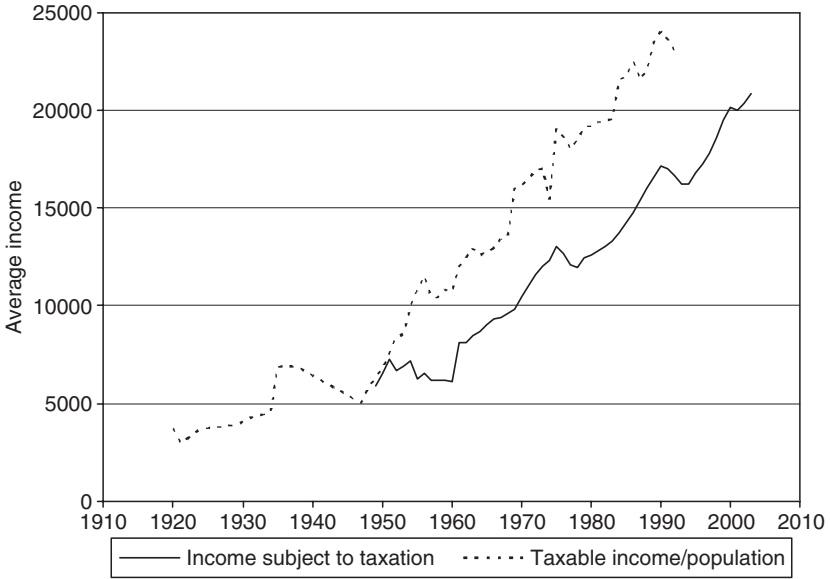
Figure 8.5 Average income: grouped data estimates in Finland
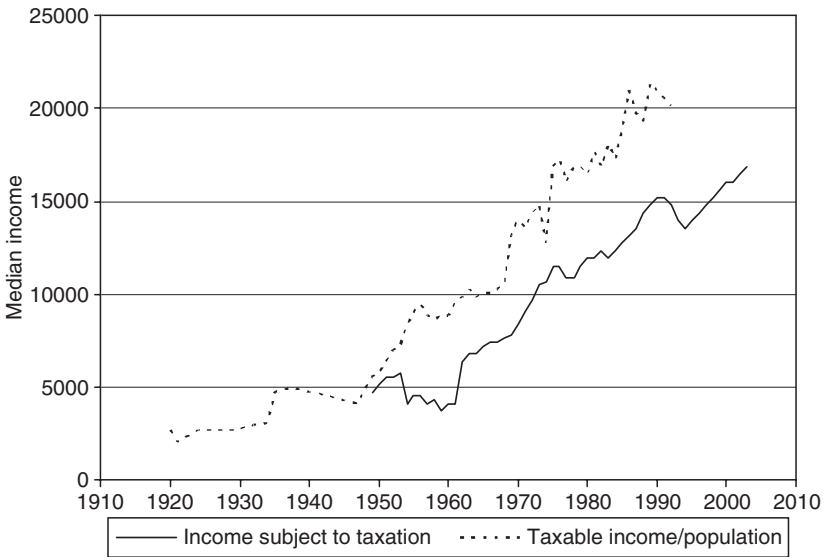
Figure 8.6 Median income: grouped data estimates in Finland
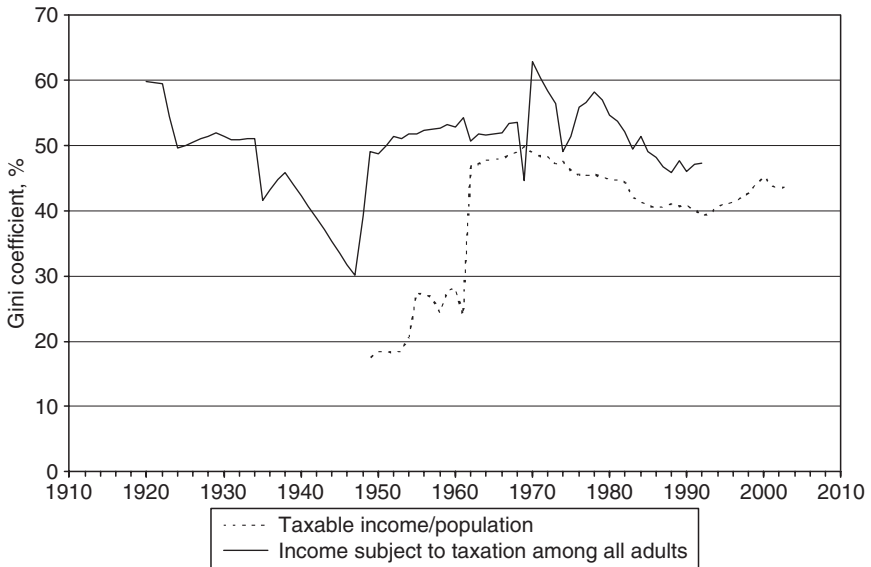
Figure 8.7 Gini coefficient: grouped data estimates in Finland

inequality (see also Table 8A.1). Before and just after the Second World War, inequality of taxed income among tax units and the population appears to have declined. After the late 1940s, inequality increased to levels experienced in the 1930s or above those. After the late 1960s, inequality started to decline until the early 1990s, after which it increased again. The level of the Gini coefficient of income subject to taxation is about the same level it was around 1980, which is substantially lower than the peak that was seen around 1960. Thus, relative inequality at the end of last century appears to be neither historically low nor historically high.

However, if we turn our attention to the top income groups, this conclusion appears premature. While the share of the top 5 per cent of earners of taxed income in the population—shown in Figure 8.8 and Table 8A.2—was more that 30 per cent in the early 1920s, it was about 15 per cent at its lowest around 1980. After this, the share (measured in income subject to taxation) increased quite rapidly and was in 2000 at least as high as in 1960, at around 20 per cent of total income. The share of the top 1 per cent of income earners—shown in Figure 8.9—also declined from around 15 per cent of taxed income among the population of tax units in 1920 to just over 6 per cent in the late 1940s to rapidly increase to about 10 per cent in the later 1950s. The top 1 per cent share then declines for almost thirty years until the early 1990s. The increase in this top share in the late 1990s is steep and brings it in 2000, when it peaked, to the same level as seen in the 1950s.

Figures 8.10 and 8.11 show the shares of the top 5 (1) per cent in the top 10 (5) per cent, respectively. These 'shares in shares' are not sensitive to having correct control totals of income. Both of the series suggest that the evolution of the

Figure 8.8 Share of top 5%: grouped data estimates in Finland
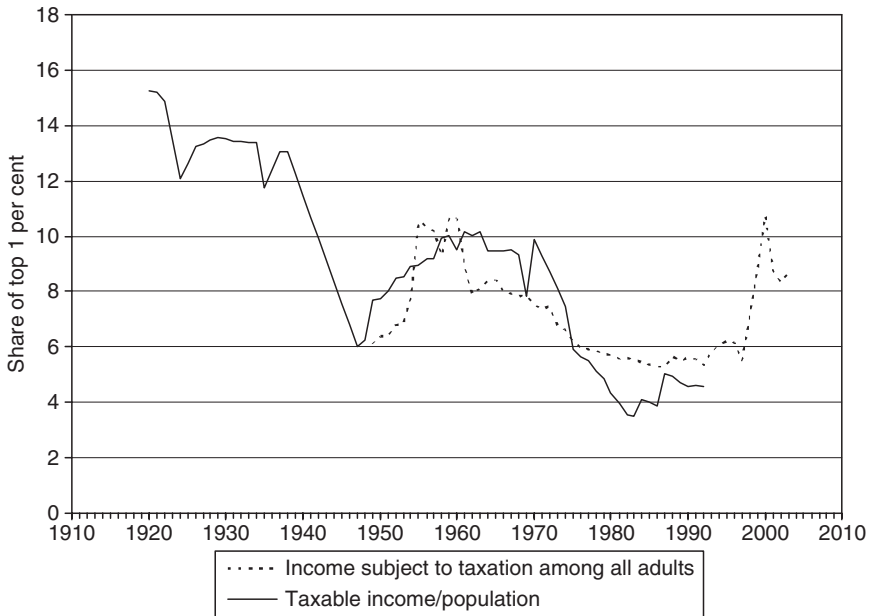
Figure 8.9 Share of top 1%: grouped data estimates in Finland

Figure 8.10 Share of top 5% in top 10% in Finland

Figure 8.11 Share of top 1% in top 5% in Finland

concentration of income at the top was relatively flat in the 1920s and 1930s, with about 70 per cent of the income in the top decile group going to the top 5 per cent and a little less than half of the total income of the top 5 per cent in turn accruing to the top 1 per cent. By 1949, concentration at the top had declined quite substantially. Roughly 62 and 34 per cent of the income of the top 10 and 5 per cent was received in that year by the top 5 and 1 per cent of those two groups, respectively. The concentration at the top increased after this to about the mid 1960s, when it starts to decline again. This slow decline in top income concentration is dramatically reversed in the late 1990s, when, for example, the share of the top 1 per cent in the top 5 per cent, for instance, increases by 13 percentage points from 35 per cent in 1996 to 48 per cent in 2000. Indeed, both shares in shares series suggest the increased concentration at the top in the late 1990s is by historical standards quite large.

Comparison with Other Countries

How does the concentration of income at the top of the distribution in Finland compare to that in other countries? As Atkinson and Piketty (2007) make clear in their discussion of the comparability of various countries' estimates, such comparisons need to be treated with caution. Indeed, as we saw in section 8.2 of this chapter, also the comparability of the estimates within countries need to be treated with care. It is, all the same, informative to compare Finnish estimates to those found in other countries, in particular the estimates gathered in Atkinson and Piketty (2007).

In 1920, the share of the top 1 per cent in Finland was about 15 per cent of total income. That share was higher in the Old World countries—the Netherlands had 21 per cent, 20 per cent in the United Kingdom, and 18 per cent in France. The Finnish share is higher, by contrast, than that in the New World countries—it was 15 per cent in the United States, 14 per cent in Canada, 12 per cent in Australia, and 11 per cent in New Zealand. By 1950, the top 1 per cent's share in all New World countries was higher than the 8 per cent share in Finland—in the United States and Canada it was 11 per cent, in Australia 14 per cent, and in New Zealand 9 per cent. By year 2000, the Finnish top 1 per cent's share is in the mid range of countries.

The share of the top 1 per cent in the top 5 per cent is relatively low in Finland, at 45 per cent in 1920. In the Netherlands this share in share is 57 per cent, the UK 62 per cent, France 57 per cent, the USA 53 per cent, and Australia 60 per cent. Only in Canada and New Zealand is it lower than in Finland, at 44 per cent. This contrasts with the year 2000, when Finland has one of the most highly concentrated top incomes measured in this way. The Finnish top 1 per cent's share of the top 5 per cent is in 2000 48 per cent and only in the USA (53 per cent) is it higher than this. The UK and Canada are close at 47 per cent, though.

It should, again, be emphasized that these country orderings may be quite sensitive to a large number of institutional and method differences. It is

nonetheless instructive to note how country orderings of top income concentration can be sensitive to both the exact measure used and change across the years in perhaps unexpected ways.

8.4 TRENDS IN TOP INCOME SHARES: MICRO-DATA ESTIMATES FOR 1966–2004

General Trends in Top Income Shares, 1966–2004

In the latter part of the chapter we focus on micro-data. There are some advantages to using micro-data. We can use household as an income-receiving unit and adjust the income by an equivalence scale and then assign this value to each individual in the household. We can also now directly compute disposable income and tax rates from the data. The limitation of these data is that they are available for a much shorter period than tabulated income data from tax tables.

Figure 8.12 shows real average disposable income in different deciles and top 5 and 1 per cents in 1966–2004. Figure 8.13 in turn shows the rate of income growth at different points of the income distribution from 1990 to 2004. We see from Figure 8.13 that average income, as measured by the mean, increased by 29.7 per cent (2.1 per cent by when annualized). At the same time there were huge income gains at the very top. The top 1 per cent saw their real incomes roughly double over the less than ten-year period. Their incomes increased by 172.3 per cent over the period from 1990 to 2004 and 12.3 per cent on annualized basis. Hence a lion's share of that growth since the mid 1990s benefited those at the top of income distribution.

Table 8.3 and Figure 8.14 show the shares of the top incomes (0.1, 1, 5, and 10 per cents). These results are also striking. First, the share of the rich in total income is no longer trivial. As Table 8.3 and Figure 8.14 show, the top 1 per cent of the total income in our sample has taken an increasing share of total income since 1994, with sharp rise continuing over the latter part of the 1990s. In 2004 1 per cent of households—around the richest 50,000 people—receive 8.8 per cent of total factor income, compared with income shares of 4.4 per cent in 1990 and 3.9 per cent in 1981 (see Table 8.3). The top 1 per cent has 6.1 per cent of after-tax income (disposable income) in 2004. That share has doubled over the past fourteen years (2.9 per cent in 1990). That is a big shift to the top: as a matter of pure arithmetic, it must mean that the incomes of less-well-off individuals grew considerably more slowly than average income. And this just happened. Compared with the top 1 per cent group, the income shares of percentile groups within the rest of the 10 per cent have risen relatively modestly over the last ten years. The top 5 per cent have 10.4 per cent of total after-tax income in 1990. That share was 14.6 per cent in 2004. Hence most of the gains in the share of the top 10 per cent over last ten years were actually gains to the top 1 per cent, rather than the next 4 or 9 per cent. The share of income going to the top decile was
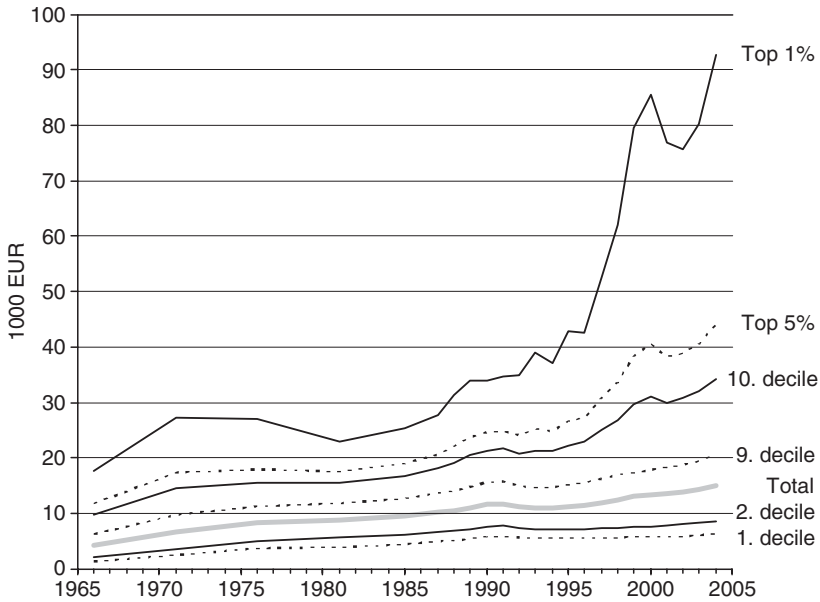
Figure 8.12 Real average disposable income, in deciles 1, 2, 9, and 10, total and in top 5% and 1% in Finland, 1966 2004

Source: Based on IDS data in 1987–2004 and HES data in 1966–85, Statistics Finland.

22.7 per cent, and it is now about as large as the share of the bottom 40 per cent of the population (24 per cent, see Table 8A.4).

As Figure 8.14 shows, top incomes shares display a U-shaped pattern over the period 1966–2004, with a drop during the period from 1966 to the beginning of the 1990s, followed by the sharp rise in the top shares until the beginning of the 2000s. Our series also shows that the level of inequality captured by the income shares of the rich is now much higher than in the mid 1990s.

One way to see how the gap between the rich and the median income is widening is to construct the ratio of top 1 per cent disposable income (evaluated at median and minimum) to median disposable income of the population. This is shown in Figure 8.15. This ratio also displays a U-shaped pattern. In the 1980s, the median income of the top 1 per cent was slightly less than three times as large as the median income of the population. In 2004, the ratio was almost five times.

Figure 8.16a displays the share of different income concepts (capital income, earnings, and disposable income) that goes to the top 1 per cent. For example, the uppermost curve shows that the 1 per cent of the population with the highest capital income received about 14 per cent of total capital income in 1971, about 20 per cent in the beginning of the 1990s, and 35 per cent in 2004. Figure 8.16a also shows that disposable income was more equally distributed than earnings

(a)

Growth from 1990 to 2004

(b)

Annual growth in 1990–2004
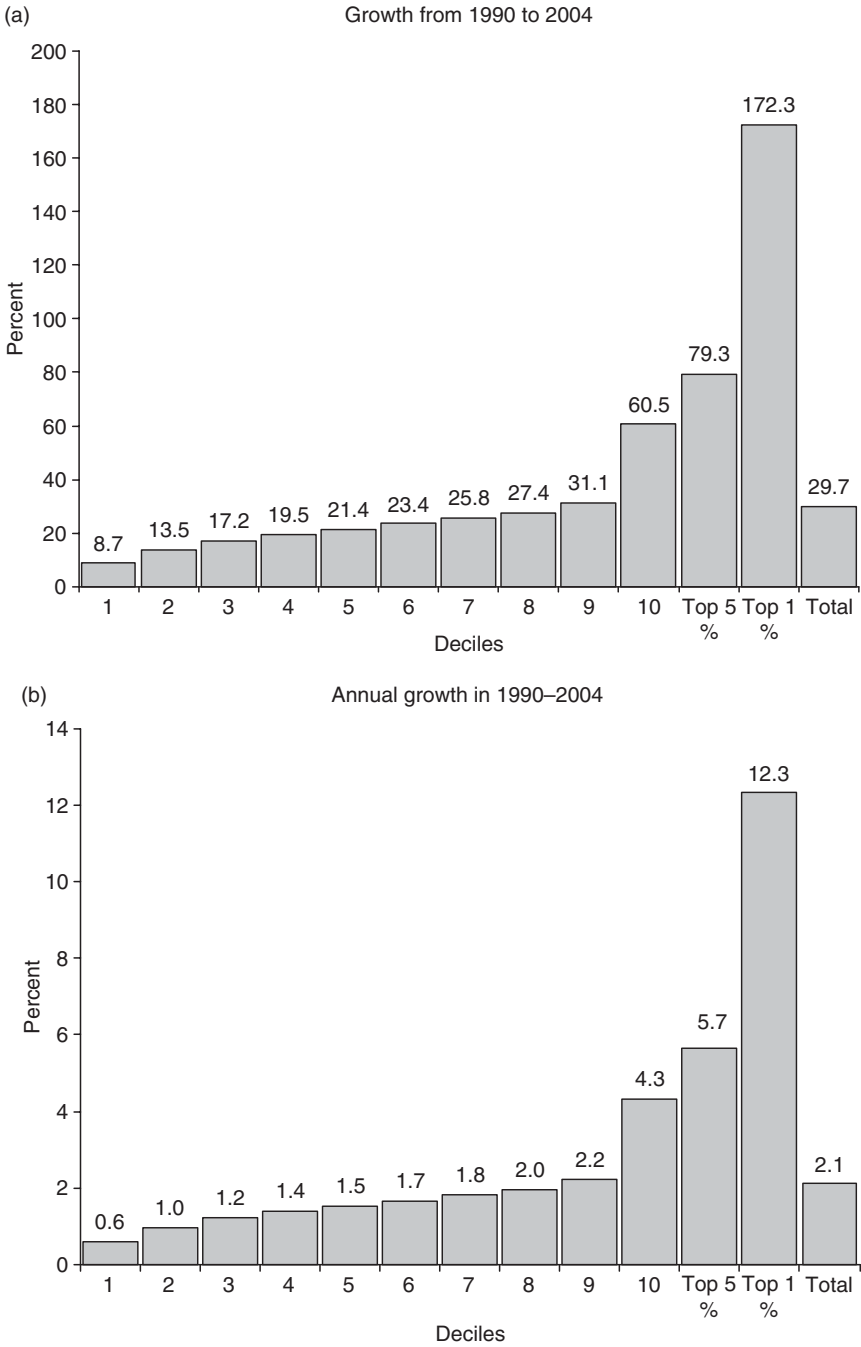
Figure 8.13 Real income growth by deciles, total and the top 5% and 1% in Finland

Source: Based on IDS data in 1990 and 2004, Statistics Finland.

Table 8.3 Top income shares (%) in Finland, 1966–2004

Year	Factor income					Gross income					Disposable income				
	50%	10%	5%	1%	0.10%	50%	10%	5%	1%	0.10%	50%	10%	5%	1%	0.10%
1966	76.54	26.79	16.40	4.98	0.91	72.89	25.06	15.26	4.57	0.83	71.42	23.70	14.23	4.27	0.76
1971	76.82	26.63	16.41	5.49	1.25	71.41	24.23	14.89	4.89	1.14	68.73	21.79	13.02	4.10	0.97
1976	74.93	23.69	14.16	4.42	1.08	68.44	21.15	12.67	3.95	0.93	65.22	18.74	10.91	3.27	0.82
1981	75.43	23.13	13.55	3.87	0.66	67.68	20.22	11.81	3.34	0.53	64.42	17.79	10.04	2.60	0.39
1985	76.17	23.67	13.76	3.75	0.60	67.36	20.33	11.84	3.31	0.53	63.97	17.85	10.09	2.71	0.38
1987	76.97	24.41	14.39	4.21	0.78	67.43	20.61	12.12	3.54	0.67	63.76	17.83	10.13	2.74	0.48
1988	77.42	25.11	14.99	4.53	0.84	67.85	21.31	12.73	3.87	0.74	64.04	18.32	10.56	3.00	0.52
1989	77.83	25.44	15.28	4.62	0.88	68.04	21.47	12.89	3.91	0.76	64.23	18.57	10.76	3.08	0.56
1990	77.58	25.21	14.95	4.48	0.85	67.73	21.08	12.50	3.72	0.68	64.11	18.44	10.62	2.95	0.48
1991	78.10	25.53	15.17	4.50	0.79	67.40	20.97	12.38	3.65	0.65	64.04	18.44	10.59	2.95	0.50
1992	80.05	26.83	16.08	4.73	0.79	67.51	21.20	12.66	3.77	0.66	63.86	18.53	10.77	3.11	0.58
1993	82.28	28.78	17.45	5.55	1.21	68.01	21.90	13.23	4.13	0.84	64.39	19.35	11.47	3.54	0.80
1994	82.97	28.96	17.40	5.26	1.03	67.85	21.82	13.01	3.88	0.70	64.27	19.31	11.35	3.39	0.64
1995	82.61	29.35	18.01	5.86	1.16	68.31	22.28	13.51	4.33	0.82	64.77	19.80	11.82	3.81	0.73
1996	83.10	29.33	17.91	5.70	0.99	68.81	22.43	13.63	4.29	0.64	65.20	19.93	11.92	3.73	0.60
1997	83.14	30.16	18.96	6.58	1.66	69.40	23.44	14.56	5.03	1.25	66.00	20.96	12.85	4.39	1.08
1998	82.80	30.45	19.44	7.35	2.22	69.93	24.02	15.16	5.68	1.63	66.64	21.60	13.47	4.98	1.52
1999	82.65	31.78	21.01	8.94	2.62	70.28	25.42	16.68	7.01	2.03	67.09	22.87	14.78	6.11	1.81
2000	82.64	31.84	21.24	9.13	3.34	70.73	25.76	17.00	7.23	2.62	67.58	23.37	15.23	6.48	2.31
2001	82.40	30.95	20.27	8.40	2.88	70.31	24.92	16.17	6.59	2.25	67.17	22.27	14.20	5.66	1.96
2002	82.09	30.98	20.26	8.29	2.44	70.18	24.94	16.15	6.47	1.88	67.12	22.28	14.06	5.49	1.53
2003	82.33	30.95	20.11	8.27	2.26	70.32	24.96	16.08	6.49	1.75	67.38	22.53	14.24	5.65	1.49
2004	82.42	31.21	20.59	8.98	3.43	70.59	25.26	16.53	7.08	2.65	67.64	22.83	14.68	6.17	2.42

Source: Based on IDS data in 1987–2004 and HES data in 1966–85, Statistics Finland.
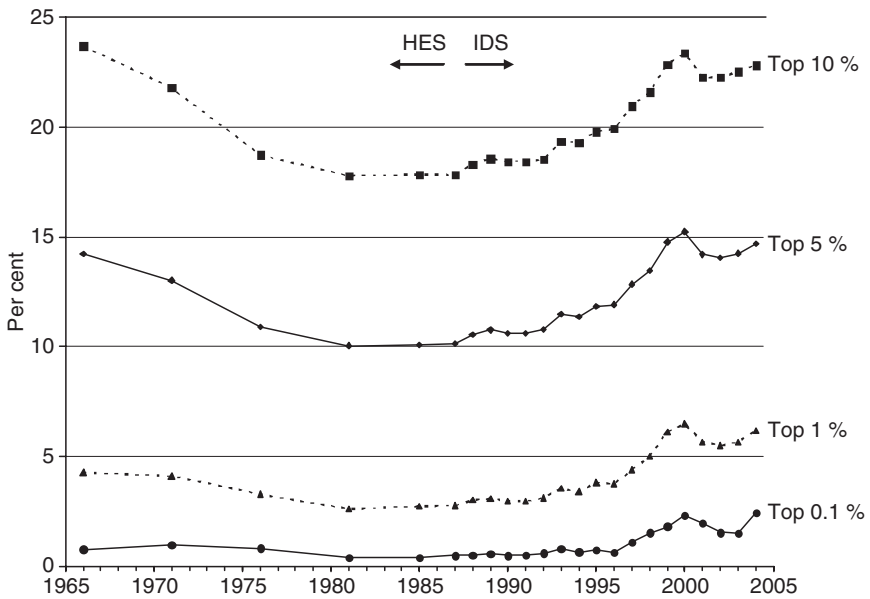
Figure 8.14 Top income shares in Finland, 1966 2004

Source: Based on IDs data in 1987–2004 and HES data in 1966–85, Statistics Finland.

Figure 8.15 The ratio of top 1% disposable income (at median and minimum) to median disposable income in Finland, 1966 2004

Source: Based on IDS data in 1987–2004 and HES data in 1966–85, Statistics Finland.
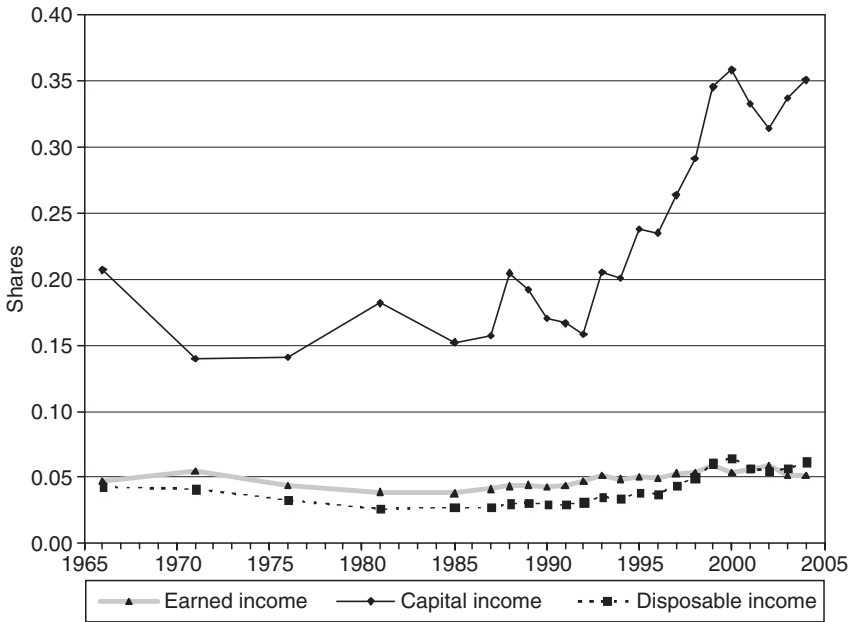
Figure 8.16a Top 1% shares in Finland, 1966 2004
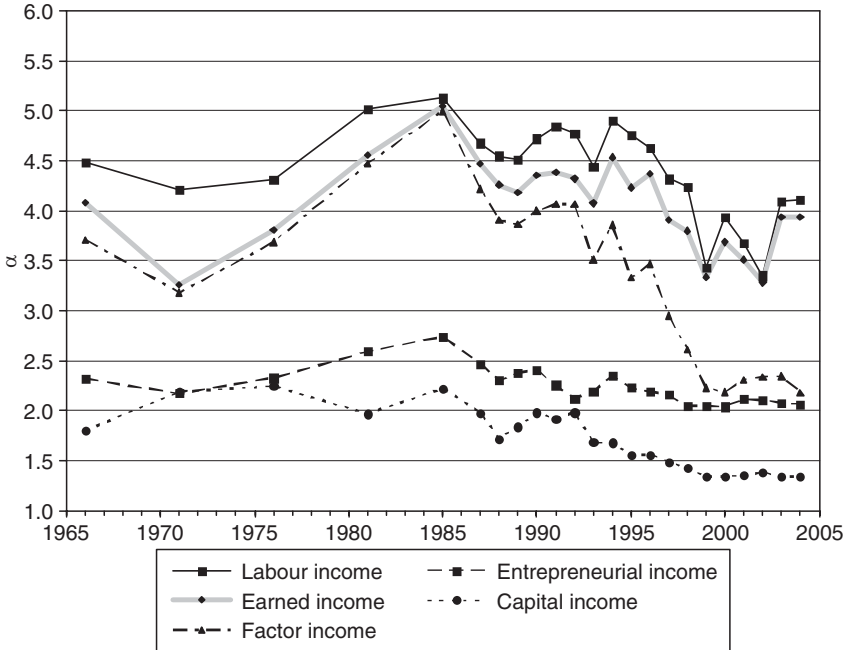
Figure 8.16b Pareto Lorenz coefficients calculated from share of top 1% within top 10% in Finland, 1966 2004

until the end of the 1990s. Since then the share of top 1 per cent of disposable income and earnings has been roughly speaking the same.

Figure 8.16b provides estimates of Pareto–Lorenz coefficient,[4] α, for various income concepts (labour income, entrepreneurial income, earned income, capital income, and factor income) calculated from share of top 1 per cent within top 10 per cent in 1966–2004. To interpret Figure 8.16b, note that the larger the Pareto–Lorenz coefficient α, the smaller is the within-group share. The graph shows that inequality among top income people was high for earned income and factor income in the beginning of the 1970s, then decreased considerably until the mid 1990s, and then started to increase again. The line that is the lowest of all lines in the graph is the Pareto–Lorenz coefficient for capital income. It has a strong declining trend since the beginning of the 1970s. It fell from 2.2 in 1971 to 1.3 in 2004.

Some people argue that the inclusion of capital gains overstates the income of the top groups in several ways. Realized capital gains are not an annual flow of income and form a very volatile component of income depending on stock price variations. It is true that capital gains are not persistent income, but in any case asset sales must take place some time. Moreover, before 1993 capital gains were in part taxable. Therefore in order to assess the sensitivity of our results to the treatment of capital gains and imputed rents of homeowners we construct series excluding capital gains and imputed rents. The main conclusion from our sensitivity analysis is that excluding capital gains and imputed rents makes very little difference. The general U-shaped pattern over the period remains (see Figure 8.17, Table 8.3, and Table 8A.4).

With capital gains and imputed rents included, our calculations show the share of income accruing to the top 1 per cent rising from 3.0 to 6.2 per cent between 1990 and 2004 (see Figure 8.17 on the left). Without capital gains and imputed rents, the shift is from 2.9 to 5.4 per cent. Figure 8.17 on the right in turn displays the Gini coefficients for the same four different income concepts. As we see the general pattern remains rather similar, excluding the 'bubble' years 1999 and 2000 (see also Table 8A.3).

The Composition of Top Incomes 1966–2004

We saw that top income shares have increased drastically over the last ten years, and that this increase was concentrated within the top 1 per cent. How far are changes in top income shares associated with changes in the composition of top incomes? For different parts of the income distribution particular components of income are of more or less importance. The selected years 1966, 1987, 1994, and 2004 of Figure 8.18 show the importance of different sources of gross income (see more accurately Table 8A.5). For example the share of top 1 per cent depends on its share in total earnings and total capital income. In 2004 market incomes other than earnings i.e. capital income were around 6–12 per cent of income for all groups, apart from the

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[4] See chapter 2 in Atkinson and Piketty (2007).

Income shares

Gini coefficients

- ◆——— Disposable income
- ■——— Disposable income (a)
- ▲– – – Disposable income (b)
- ●······ Disposable income (a) + (b)
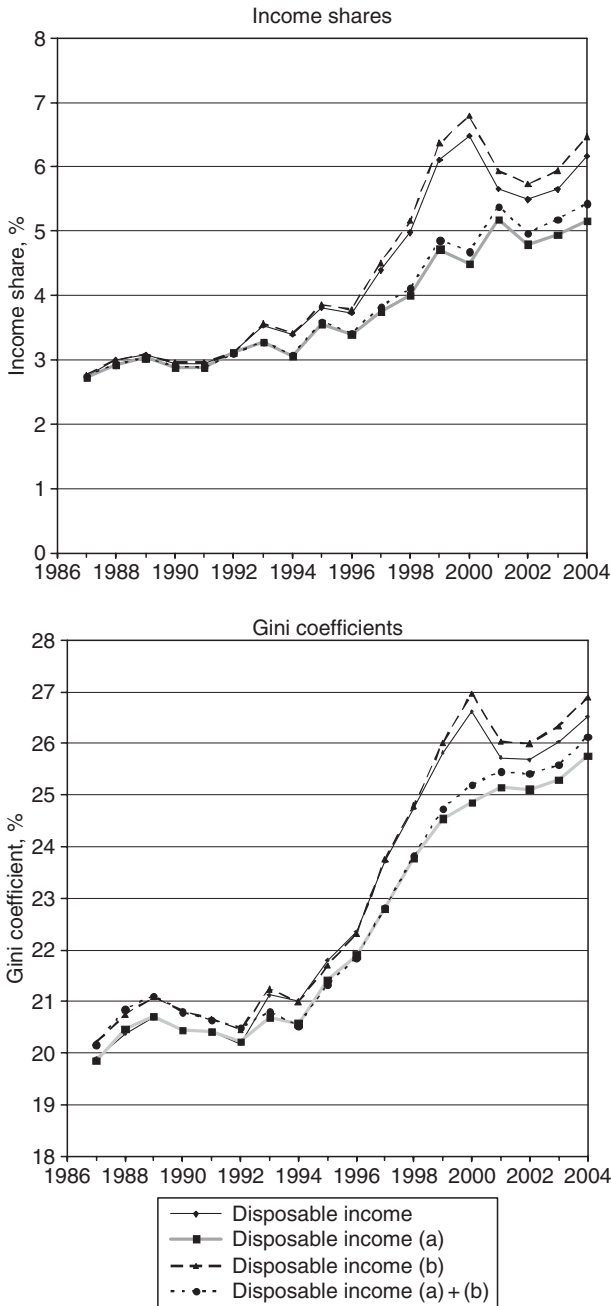
Figure 8.17 Income shares for top 1% and Gini coefficients in different income concepts in Finland, 1987 2004

Notes: (a) Disposable income without realized capital gains, (b) Disposable income without imputed net rents of owner-occupied dwellings, (a + b) Disposable income without realized capital gains and imputed net rents of owner-occupied dwellings.

Source: Based on IDS data in 1987–2004, Statistics Finland.

top decile for which they made up 30 per cent, resulting in earnings being a smaller share of the top decile than the rest of the top half. The differences in income composition mean that changes in relative values of different income sources have large effects on the overall distribution. As we expected very top incomes to be composed primarily of capital income, this suggests that a large increase in the share of the top 1 per cent is mainly driven by an increase in top capital incomes. At the same time, Figure 8.18 shows that the share of capital income has also increased dramatically within the top one group. Our series show that the sharply increasing pattern of capital income is entirely due to dividends. Our evidence confirms that the very large increase of top incomes observed during 1995–2004 was to a large extent a capital income phenomenon.

Figure 8.18 reports the composition of income in different deciles and in the top 1 per cent and top 5 per cent groups from 1966 and 2004. Figure 8.19 (and annually Table 8A.6) displays the composition of capital income respectively from 1987 to 2004. It shows that the share of dividends and interest income (in practice dividends) in total capital income has increased remarkably in the top 1 per cent group. It has increased from 53 per cent in 1987 to 66 per cent in 2004. The share of dividends in total gross income in the top 1 per cent group was 42 per cent in 2004 while the share of capital gains was 16 per cent. Figure 8.16a also shows that the share of capital income is not only increasing in income, but it is increasing now much more steeply than ten years ago.

Seeking Explanations for Increasing the Top Income Shares

The increasing share of the top 1 per cent in total income has been a notable feature of the changes in income inequality in the Anglo-Saxon countries, including USA, UK, Canada (see Atkinson 2002; Piketty and Saez 2003), while in Europe the Netherlands, France, and Switzerland display hardly any change in top income shares.[5]

What explains the growing income share of the top 1 per cent? What causal forces could have produced such dramatic changes in top income shares? How far has income taxation been responsible for this pattern of distributional change? Following Piketty (2003), most authors have argued that the dramatic increase in tax progressivity that has taken place in the inter-war period in many countries studied, and which remained in place at least until the recent decades, has been the main factor preventing top income shares from coming back to the very high levels observed at the beginning of the last century.[6]

Explaining the surge in top incomes in many advanced countries over the last ten to twenty years is more difficult. Economists have formulated several hypotheses about its causes. They are the shift from manufacturing to service

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[5] The more recent estimates of Camille Landais (2007) show a rise in recent years in France.

[6] In fact Kuznets (1955) and Lampman (1962) also point out the role of progressive taxation as a central factor explaining the declined income and wealth inequality in the first half of the twentieth century.

Year 1966

Year 2004
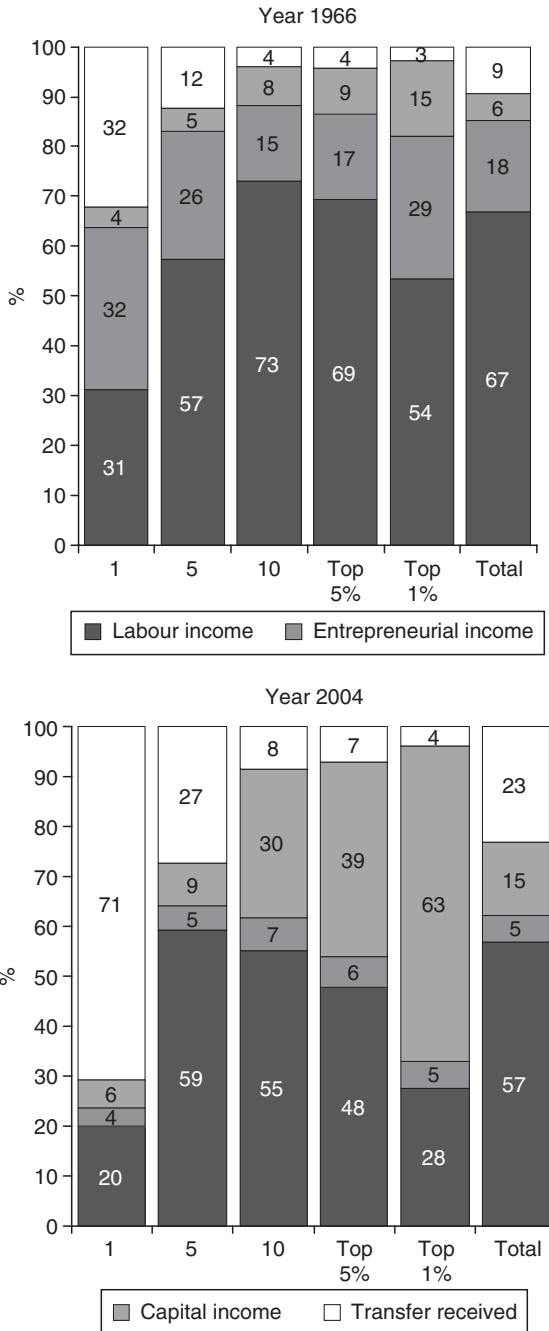
Figure 8.18 Gross income items in deciles and in top 5% and 1% in Finland
Source: Based on IDS data in 2004 and HES data in 1966, Statistics Finland.

Year 1987

Year 2004

Figure 8.19 Capital income items in deciles and in top 5% and 1% in Finland

Source: Based on IDS data in 1987 and 2004, Statistics Finland.

production, technological changes, increased international trade, less progressive taxation, etc. Of these the most frequently cited explanation is that technological advances, particularly in the advent of computerized technologies, have created greater demand for higher-skilled and more educated workers and diminished demand for less-skilled and less-educated workers. By means of a simple application of supply and demand, this theory posits that skill-biased technological change has driven up the wages of the higher skilled and driven down those of the lower skilled. However, there is a growing group of economists who suggest it is not the sole explanation.[7] For example, Piketty and Saez (2003) challenge the skill-biased technological change thesis on the ground that the timing of the shifts in income differences does not support it in the USA. Similarly they contend that widening income differences cannot simply be a response to technical change or changes in the supply of educated workers, because the increase is highly concentrated among the very highest earners. The theory is not able to explain the rise of the working rich. Piketty and Saez (2003) instead argue that changing social norms are an important factor in explaining the recent increase in income inequality, particularly in the rise of mega-incomes for the very top earners. In the USA, according to Piketty and Saez (2003), 'the coupon-clipping rentiers have been overtaken by the working rich'.

In his book *The New Industrial State* J. K. Galbraith (1967) made important observations on the role of social norms in management. He writes: 'management does not go out ruthlessly to reward itself—a sound management is expected to exercise restraint . . . With the power of decision goes opportunity for making money . . . The corporation would be a chaos of competitive avarice. But these are not the sort of thing that a good company man does; a remarkably effective code bans such behaviour.'

The social norms have also changed in recent years in Finnish society. In Finland over the last ten-year period top incomes are composed more and more of dividend income (see Figures 8.16a and 8.19). In other words the coupon-clipping rentiers are back in Finland (Riihelä et al. 2005). Piketty and Saez (2003) give a central role to taxation, executive compensation, and shocks to capital returns. Our focus is the impact of taxation on top income shares in Finland.

The Role of Taxation

In order to explore the impact of taxation on underlying distribution, we need again to consider the composition of income. In particular the explanations are likely to be different for labour and capital income. On the basis of the composition of top incomes by source and how that evolved over time we can see that the remarkable rise in the share of the top incomes after the mid 1990s reflected a rise in income from capital, in particular in the form of dividends (see Figure 8.19).

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[7] See, e.g., Atkinson (1999).

We attribute this directly to what happened to the tax system in 1993. The contribution of entrepreneurs to income inequality rose markedly during the latter part of the 1990s (see Riihelä et al. 2001). This is simply because capital income has become a more important income source for this group. Entrepreneurs have increased their share of total income in top income groups (see Figure 8.20). This share has increased from 16.1 per cent in 1987 to 33.3 per cent in 2004. At the same time capital income of entrepreneurs has become more unequally distributed amongst this group and has also steadily become more positively correlated with total income over the period. These three factors together explain the disequalizing effect of capital income for this group. The dramatic increase in the top 1 per cent is thus due to a sharp increase in capital income (dividends). As shown in Figure 8.18, the main factor that has driven up the top 1 per cent income share is an unprecedented increase in the fraction of capital income, which in 2004 represents about 63 per cent of incomes in the top 1 per cent group. It was 11 per cent in 1990. Therefore, as shown in Figure 8.18, the composition of high income at the end of the period considered is very different from those in earlier decades. It is important to note that the secular increase of top capital incomes is due to both an increased concentration of capital and an increase in the share of capital income in the Finnish economy as a whole. How can we explain the steep increase in capital income concentration?

The redistributive effects of income taxation depend on two things; on the legal definition of tax base and on the formal degree of progressivity. The Finnish tax reform in the latter part of the 1980s combined a reduction in the degree of progressivity with the broadening of the tax base. The major change took place in 1993, when the so-called dual income tax was introduced. It combines progressive taxation of earned income with a flat rate of tax on capital income (e.g. dividends, interest, and capital gains) and corporate profits. In the beginning the tax rate was 25 per cent and in recent years 29 per cent. A full imputation system has been applied to the taxation of distributed profits. In other words double taxation of dividends was completely eliminated by imputation. Under the dual income tax, capital income is taxed at a lower rate than the top marginal tax rate on labour income. Hence the taxpayer's total tax paid depends not only on his or her total income, but also on his or her income division.

The view that the 1993 tax reform is one of the key factors responsible for the increasing trend of the share of capital income (dividends) is also supported by the fact that the share of entrepreneurial income indicates a declining trend over the period. The dual income tax system requires a splitting of the income of the self-employed and the income of active owners of firms into a labour income component and a capital income component. Since the two components cannot be observed directly, this splitting gives rise to a number of practical problems. On the other hand, the dual income tax system created incentives for tax avoidance through the transformation of labour income subject to high marginal rates into capital income subject to low marginal rates. The Finnish scheme of taxing so-called closed corporations is not neutral in its impact on the allocation of capital to closely and widely held corporations (see Lindhe, Södersten, and
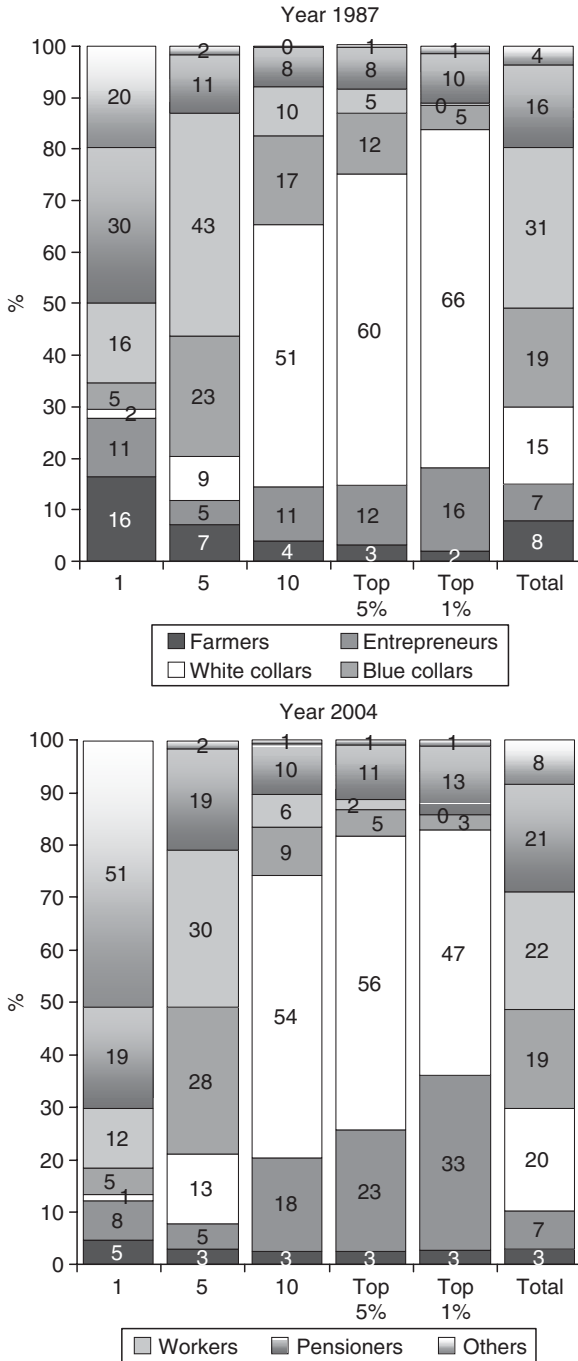
Figure 8.20 Gross income decomposed by seven socio economic groups in Finland
Source: Based on IDS data in 1987 and 2004, Statistics Finland.
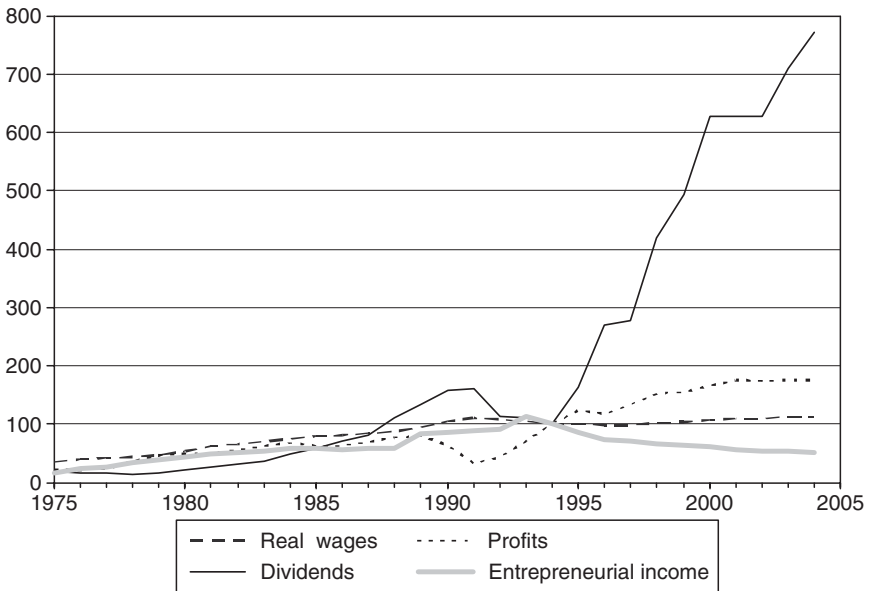
Figure 8.21 The growth rates of real wages, profits, dividends, and entrepreneurial income in Finland, 1975 2004; 1994 = '100'

Source: National Accounts, Statistics Finland.

Öberg 2002).[8] The net assets of the corporation form the basis for imputing income from capital. This increases the attractiveness of investing in closed corporations. It is obvious that this is the important reason why real dividends rose hugely over the latter part of the 1990s.

National income accounts series in Figure 8.21 show a sharp surge in real dividends following the 1993 reform. It is obvious that this huge growth was tax driven. Interestingly, at the same time real profits increased but much less than real dividends. Figure 8.21 shows also that wages rose only very modestly and the entrepreneurial incomes have declined since 1993.

The number of self-employed individuals decreased after 1993, while the total number of corporations increased at the same time. Figure 8.22 displays the increasing share of corporations of all firms and their increasing share of business income. Furthermore the business income of corporations doubled over the period 1993–2002. This can be interpreted as an indication of a tax-induced shift in organizational form and the choice of tax regime.

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[8] 'The Finnish scheme for taxing owners in closed corporations is relatively simple, compared to corresponding tax laws in Norway and Sweden. However, the system seems to offer generous opportunities for tax avoidance by transforming labor income into capital income. For example, retained corporate profits will increase the amount that is taxed as capital income, and capital gains on shares are only subject to capital income tax' (Lindhe, Södersten, and Öberg 2002: 6).
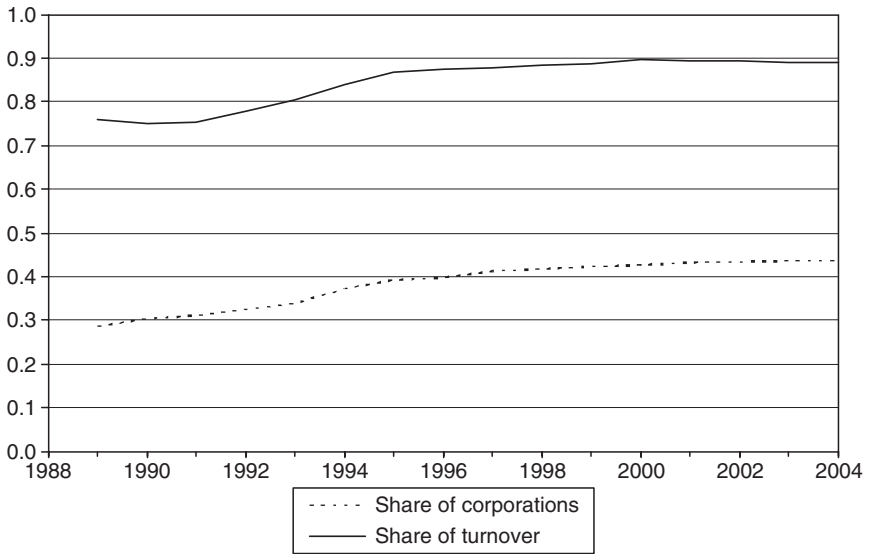
Figure 8.22 The share of corporations and their share of turnover in Finland, 1989 2004

Source: Statistics Finland.

Figure 8.23 gives one picture of the role of the tax system in the dramatic surge in top incomes. As seen in Figure 8.23 (and Table 8A.7) the composition of taxes has changed quite dramatically. The share of capital income taxes has increased in the top 1 per cent group. The share in 1994 was 14 per cent and in 2004 that share was 46 per cent. The share of earned income taxes (state-earned income tax + municipal tax) in turn has clearly declined over the last ten years from 68 per cent in 1994 to 44 per cent in 2004.

To get a sense of how the progressivity of the income tax system has changed Figure 8.24 shows how the average tax rates have changed at any given level of gross income. Figure 8.24 (left-hand side) shows the average tax rate of the individual whose tax burden is at the mean of tax burden of those in each decile. Figure 8.24 (right-hand side) in turn displays average tax rates for each percentile within the top decile. The average tax rate for the median was 22 per cent in 1987 and is slightly less in 2004 (21 per cent) The average tax rate for the richest 1 per cent has fallen about 44 per cent in 1987 to about 34 per cent in 2004. What is also interesting in Figure 8.24 is that the average tax rate schedule has been constant from 1994 onwards over the top 1 per cent (100–99). In other words it reflects the flat rate.

For a few reasons, the 34 per cent number paid by the top 1 per cent of taxpayers may be an inadequate measure of the average tax rate of this group. One important reason is that the person who nominally pays the tax (i.e. a
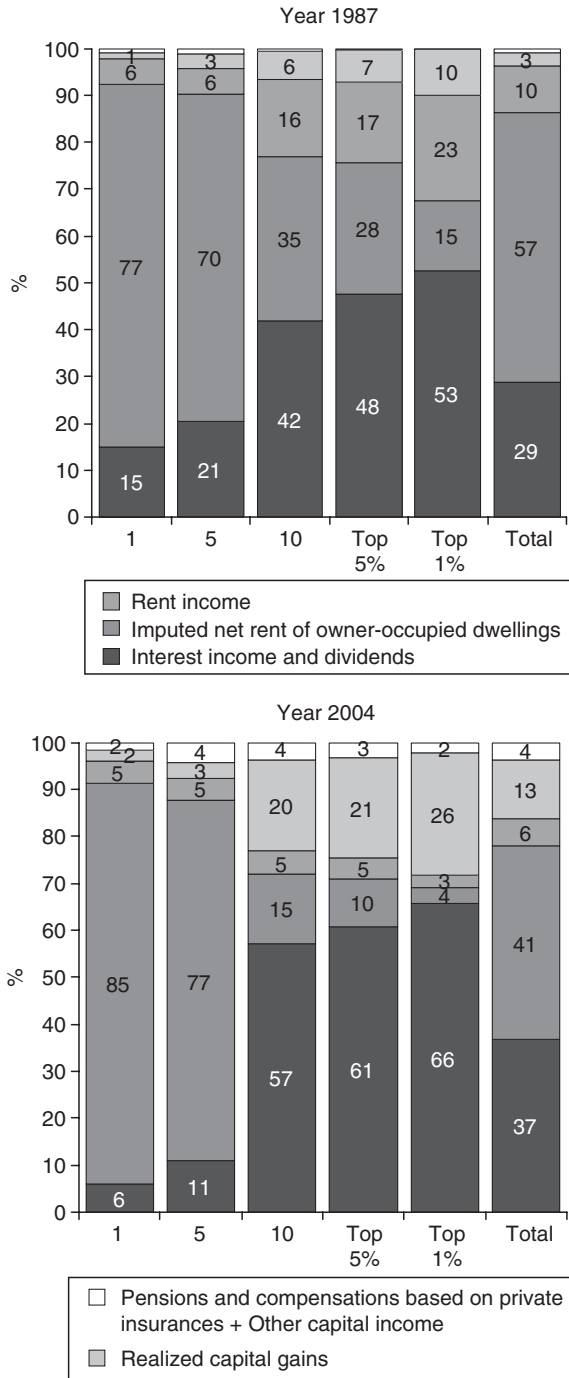
Year 1987

Year 2004
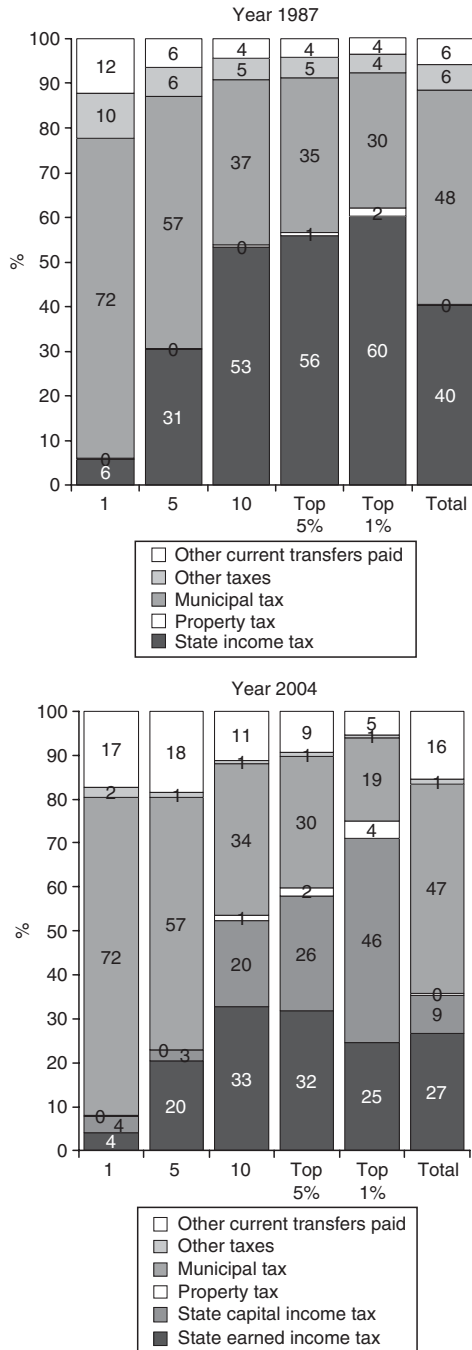
Figure 8.23 Tax items in deciles and in top 5% and 1% in Finland

Source: Based on IDS data in 1987 and 2004, Statistics Finland.
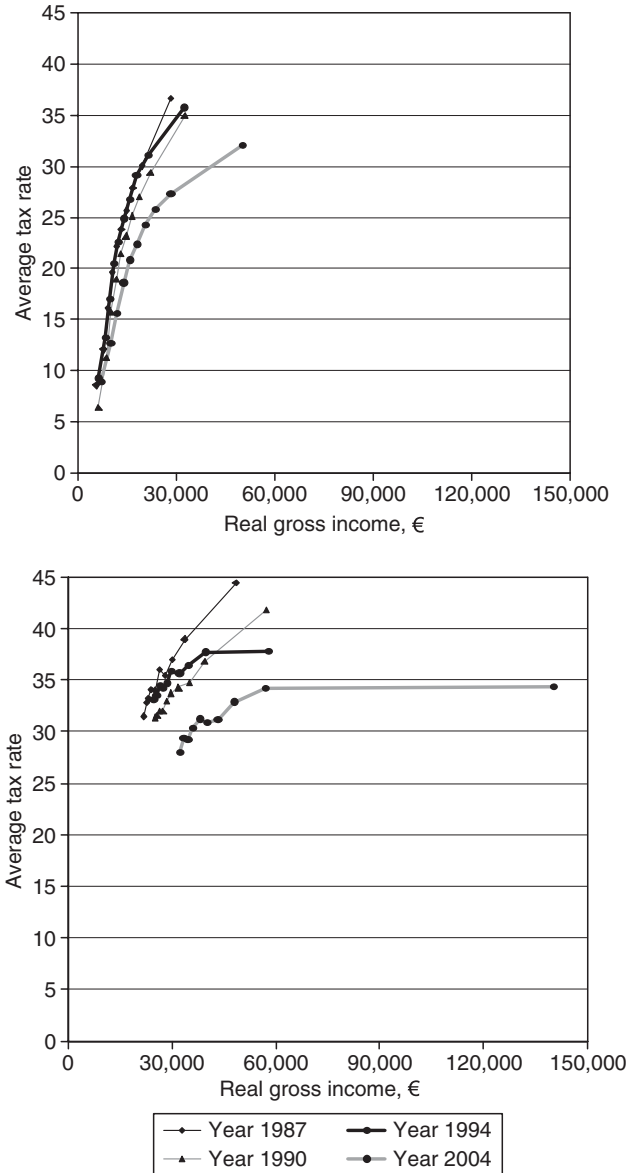
Figure 8.24 Average tax rates in the decile means and for percentiles in the top decile in Finland

legal liability for a tax) is not necessarily the person who really pays the tax; the tax may be shifted onto someone else. How much shifting occurs depends on the supply and demand circumstances of the economy. This is a highly controversial issue among economists. Especially this is the case with the corporate income tax. For example, it is assumed by the IDS data that the shareholder pays the corporate income tax. So the IDS data overstate the tax rates of the top 1 per cent group.

A relevant question to ask is whether this increase in top incomes could have occurred had the income tax system remained the same as before 1993. It is plausible to think that the drastic reduction of top income tax rates, which started in 1993, opened the possibility of the dramatic increase in top incomes that started around the mid 1990s and accelerated in the end of the 1990s.

8.5 INCOME MOBILITY IN 1990–2001

All our evidence so far in this chapter has been based on a snapshot, or a series of snapshots, of the income distribution in Finland. The snapshot of the income distribution may be a misleading picture. People who have high income one year may have lower income the next and vice versa. In other words if the increased snapshot income concentration that we have documented in Finland has been associated with a substantial increase in income mobility, then the permanent inequality has not necessarily changed much. In the IDS data each household is included in the sample for two consecutive years, i.e. two-year rotation. Hence the IDS data allow us to provide some answers to questions such as whether individuals that belong to the top 1 per cent group, say, in 1997 would still have been in this group one year later. Hence we can analyse how income mobility at the top has evolved in the recent decades (see Riihelä and Sullström 2002 for a more detailed exposition on income mobility in Finland).

We constructed the mobility matrix for 1990 and 1991, 1994 and 1995, and 2001 and 2002. Let P be a matrix of (n × n) transitions, the ij[th] element of which, P_{ij}, is the percentage in the income class i (percentile) at time t_0 of those who at time t_1 were in class j. The advantage of the transition matrix is that it can nicely summarize mobility at various points in the distribution, which is harder to gauge from a single index. Figure 8.25 shows the percentage of those remaining in the same income group. In other words it is the diagonal of the mobility matrix. It is immediately evident that there is less mobility in the top and bottom than in the middle of the distribution. This is, however, unsurprising given that the top (bottom) can only stay in the same group or move down (up). Also the right-hand tail is particularly large, which is the reason why persistence in that group is particularly high.

Table 8.4 suggests that mobility at the top 1 per cent is quite modest. In fact mobility has decreased at this group from 1990/1 to 2001/2. It can be seen that 65
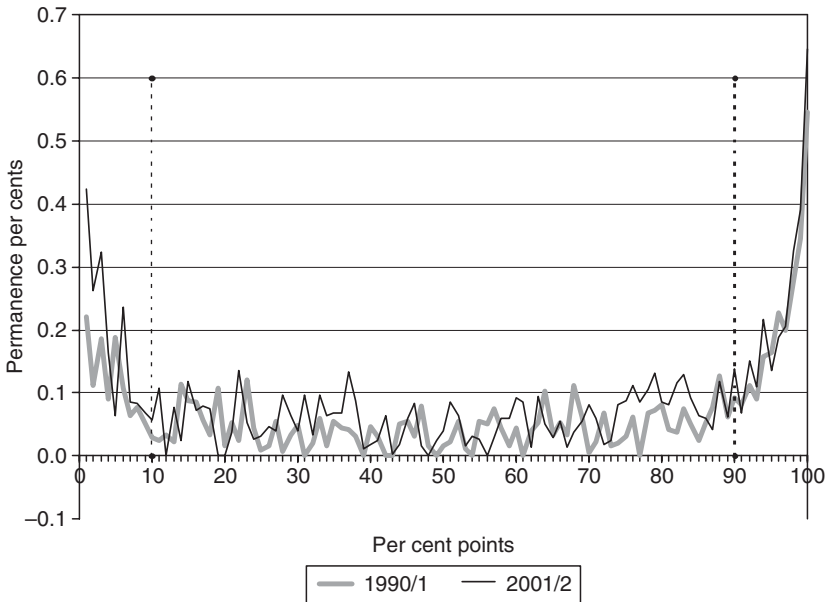
Figure 8.25 Permanence in the same percentiles in 1990/1 and 2001/2 in Finland

Source: Based on IDS data in 1990–2002, Statistics Finland.

(54) per cent were in the top 1 per cent in 2001/2 (1990/1). Those who moved their states in the top 1 per cent between (99–90) points (including the persistence) were 91 (85) per cent.

Hence the IDS data suggest that the increase in annual income concentration that we have documented in this report is associated with a similar increase in longer-term income concentration.

Table 8.4 Mobility and permanence in the top 1% in Finland, 1990/1, 1993/4, 1994/5, and 2001/2

	Per cent point	1990/1	1993/4	1994/5	2001/2
Mobility	0 49	5.23	5.98	5.65	0.39
	50 59	0.69	1.05	0.00	0.75
	60 69	0.90	2.17	0.00	0.95
	70 79	1.43	3.65	1.77	2.37
	80 89	7.02	0.00	6.14	3.96
	90 94	9.59	2.14	2.21	0.61
	95 98	20.65	32.87	27.63	25.87
Permanence	99 100	54.40	53.21	57.70	64.70

Source: Based on IDS data in 1990–2002, Statistics Finland.

8.6 CONCLUSIONS

This chapter provides new evidence about the evolution of top incomes in Finland based both on tabulated income tax data for 1920–2003 and on micro-data over the period 1966–2004. The chapter shows how the proportion of income earned by the very richest 1 per cent has changed over time. The total share of the highest earners fell consistently from the beginning of the 1960s to the mid 1990s but then began to rise. The results bring out clearly how the major equalization from the beginning of 1960 to the mid 1990s has been reversed, taking the shares of top income groups back to levels of inequality or even higher found over forty years ago.

The main factor that has driven up the top 1 per cent income share in Finland since the mid 1990s is an unprecedented increase in the fraction of capital income which is in 2004 63 per cent of incomes in the top 1 per cent group. Therefore the composition of high incomes at the end of the period considered is very different from those earlier years of this period. We argue in this chapter that the 1993 tax reform is one of the key factors responsible for this trend. Our results suggest that the decline in income progressivity since the mid 1990s is a central factor explaining the increase of top income shares in Finland.

APPENDIX 8A: BACKGROUND TABLES

This appendix contains background Tables 8A.1 to 8A.10.

Table 8A.1 Gini coefficients (%) in Finland from Statistics of Income and Property, 1920 2003

Year	Income subject to taxation among all adults	Taxable income/ population	Year	Income subject to taxation among all adults	Taxable income/ population
1920		59.77	1962	46.87	50.59
1921		59.57	1963	47.09	51.81
1922		59.45	1964	47.69	51.65
1923		54.50	1965	47.85	51.74
1924		49.53	1966	47.94	51.93
1925		50.03	1967	48.47	53.39
1926		50.52	1968	49.02	53.56
1927		50.98	1969	49.83	44.58
1928		51.45	1970	48.87	62.84
1929		51.91	1971	48.30	60.37
1930		51.40	1972	48.26	58.35
1931		50.88	1973	47.12	56.39
1932		50.92	1974	47.55	49.05
1933		50.95	1975	46.02	51.33
1934		50.99	1976	45.48	55.77
1935		41.52	1977	45.37	56.53
1936		43.15	1978	45.52	58.27
1937		44.79	1979	45.13	56.86
1938		45.87	1980	44.83	54.66
1939		44.11	1981	44.66	53.76
1940		42.35	1982	44.34	52.03
1941		40.59	1983	42.00	49.43
1942		38.83	1984	41.43	51.45
1943		37.07	1985	40.72	48.98
1944		35.30	1986	40.49	48.13
1945		33.55	1987	40.63	46.81
1946		31.79	1988	41.00	45.85
1947		30.03	1989	40.68	47.57
1948		39.30	1990	40.74	45.95
1949	39.29	48.99	1991	40.09	47.10
1950	40.88	48.66	1992	39.23	47.30
1951	42.20	49.89	1993	39.52	

1952	40.86	51.37	1994	40.69
1953	40.97	51.03	1995	41.06
1954	47.78	51.71	1996	41.29
1955	49.60	51.67	1997	41.92
1956	53.07	52.24	1998	42.64
1957	53.99	52.48	1999	44.18
1958	50.14	52.62	2000	45.19
1959	55.65	53.11	2001	43.74
1960	53.96	52.88	2002	43.51
1961	55.97	54.18	2003	43.60

Source: Statistics of Income and Property, Statistics Finland.

Table 8A.2 Top income shares (%) in Finland from Statistics of Income and Property, 1920–2003

Year	Top 5%		Top 1%		Year	Top 5%		Top 1%	
	Income subject to taxation among all adults	Taxable income/ population	Income subject to taxation among all adults	Taxable income/ population		Income subject to taxation among all adults	Taxable income/ population	Income subject to taxation among all adults	Taxable income/ population
1920		33.55		15.27	1962	21.12	25.09	7.90	10.01
1921		32.26		15.20	1963	21.30	25.50	8.11	10.16
1922		31.98		14.85	1964	21.55	24.54	8.39	9.46
1923		29.53		13.46	1965	21.57	24.51	8.42	9.47
1924		27.07		12.07	1966	21.34	24.55	8.01	9.47
1925		27.78		12.64	1967	21.50	25.13	7.92	9.54
1926		28.50		13.22	1968	21.52	24.96	7.83	9.31
1927		28.75		13.34	1969	21.54	20.50	7.86	7.84
1928		29.00		13.45	1970	21.01	25.71	7.54	9.87
1929		29.26		13.57	1971	20.62	24.83	7.37	9.26
1930		29.36		13.50	1972	20.37	23.52	7.46	8.70
1931		29.47		13.43	1973	19.44	22.83	6.78	8.10
1932		29.43		13.41	1974	19.15	20.86	6.63	7.46
1933		29.38		13.40	1975	18.27	19.53	6.22	5.91
1934		29.33		13.38	1976	17.83	20.39	5.95	5.66
1935		25.11		11.74	1977	17.90	20.51	5.93	5.51
1936		26.16		12.39	1978	17.84	20.94	5.86	5.15
1937		27.21		13.04	1979	17.66	20.09	5.75	4.87
1938		27.57		13.04	1980	17.50	17.80	5.70	4.32
1939		26.32		12.26	1981	17.45	16.21	5.56	3.96
1940		25.07		11.47	1982	17.20	14.53	5.61	3.55
1941		23.82		10.69	1983	16.96	13.52	5.55	3.49
1942		22.57		9.91	1984	16.78	18.59	5.43	4.11
1943		21.33		9.13	1985	16.52	16.86	5.36	4.03

Year					Year				
1944		20.08		8.35	1986	16.63	15.88	5.30	3.86
1945		18.83		7.57	1987	16.55	16.98	5.29	5.03
1946		17.58		6.79	1988	16.93	17.36	5.67	4.96
1947		16.33		6.01	1989	16.62	17.11	5.50	4.70
1948		17.05		6.23	1990	16.82	16.88	5.63	4.59
1949	17.57	20.73	6.11	7.71	1991	16.69	16.84	5.57	4.62
1950	18.34	20.72	6.39	7.75	1992	16.29	16.74	5.34	4.58
1951	18.51	21.29	6.39	8.03	1993	16.93		5.83	
1952	18.19	22.18	6.80	8.48	1994	17.49		6.07	
1953	18.47	22.23	6.83	8.51	1995	17.76		6.21	
1954	20.58	23.16	7.79	8.91	1996	17.68		6.16	
1955	27.45	23.03	10.52	8.94	1997	18.36		5.51	
1956	27.14	23.74	10.36	9.20	1998	19.21		7.16	
1957	26.77	23.68	10.18	9.18	1999	21.27		8.85	
1958	24.41	25.12	9.30	9.92	2000	22.41		10.73	
1959	27.78	25.19	10.66	10.01	2001	20.66		8.77	
1960	28.13	24.37	10.64	9.50	2002	20.53		8.34	
1961	23.99	25.93	8.86	10.16	2003	20.54		8.63	

Table 8A.3 Gini coefficients (%) with standard error in brackets in Finland, 1966–2004

| Year | Factor income | | Gross income | | Disposable income | | Disposable income | | | | | |
	Gini	std	Gini	std	Gini	std	(a) Gini	std	(b) Gini	std	(a) + (b) Gini	std
1966	38.45	0.61	33.22	0.57	31.06	0.53						
1971	39.04	0.44	31.31	0.39	27.29	0.37						
1976	35.81	0.39	26.64	0.33	21.94	0.31						
1981	36.22	0.36	25.43	0.27	20.72	0.21						
1985	37.25	0.35	25.03	0.26	20.15	0.20						
1987	38.46	0.31	25.26	0.20	19.90	0.16	19.86	0.16	20.20	0.17	20.16	0.17
1988	39.24	0.30	25.99	0.20	20.37	0.17	20.47	0.18	20.74	0.17	20.85	0.18
1989	39.80	0.32	26.29	0.24	20.68	0.19	20.72	0.20	21.07	0.19	21.11	0.21
1990	39.40	0.31	25.76	0.22	20.45	0.17	20.45	0.18	20.81	0.18	20.80	0.18
1991	39.93	0.30	25.36	0.19	20.43	0.16	20.42	0.16	20.65	0.16	20.64	0.16
1992	42.54	0.33	25.48	0.21	20.18	0.19	20.22	0.19	20.45	0.19	20.49	0.19
1993	45.72	0.40	26.36	0.28	21.12	0.26	20.68	0.23	21.23	0.27	20.80	0.23
1994	46.53	0.41	26.18	0.27	21.02	0.25	20.58	0.24	20.98	0.26	20.53	0.24
1995	46.39	0.42	26.90	0.31	21.80	0.29	21.43	0.28	21.69	0.30	21.33	0.28
1996	46.79	0.42	27.53	0.28	22.35	0.26	21.90	0.23	22.30	0.27	21.85	0.23
1997	47.25	0.48	28.64	0.37	23.70	0.34	22.79	0.28	23.76	0.36	22.82	0.29
1998	47.09	0.55	29.54	0.46	24.73	0.45	23.78	0.35	24.79	0.48	23.82	0.38
1999	47.60	0.69	30.56	0.64	25.82	0.59	24.55	0.52	26.01	0.63	24.73	0.56
2000	47.57	0.79	31.22	0.75	26.61	0.72	24.86	0.49	26.97	0.77	25.20	0.52
2001	46.95	0.72	30.42	0.67	25.72	0.61	25.15	0.59	26.03	0.65	25.45	0.64
2002	46.65	0.63	30.32	0.58	25.68	0.53	25.11	0.48	25.99	0.57	25.41	0.50
2003	46.78	0.76	30.44	0.73	26.03	0.68	25.29	0.66	26.33	0.73	25.58	0.71
2004	47.16	0.82	30.91	0.79	26.51	0.76	25.76	0.67	26.89	0.82	26.13	0.73

Notes:
(a) Disposable income excluding realized capital income.
(b) Disposable income excluding imputed net rents of owner-occupied dwellings.
(a) + (b) Disposable income excluding realized capital income and imputed net rents of owner-occupied dwellings.

Source: Based on IDS data in 1987–2004 and HES data in 1966–1985, Statistics Finland.

Table 8A.4 Inverted Lorenz curve (100 − Lorenz curve) in Finland, 1966−2004

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
1966	0	100.00	100.00	100.00									
	10	98.67	97.03	96.83									
	20	95.14	92.61	92.10									
	30	90.22	87.10	86.30									
	40	84.04	80.59	79.45									
	50	76.54	72.89	71.42									
	60	67.35	63.76	62.08									
	70	56.41	53.18	51.37									
	80	43.23	40.54	38.90									
	90	26.79	25.06	23.70									
	95	16.40	15.26	14.23									
	99	4.98	4.57	4.27									
	99.9	0.91	0.83	0.76									
1971	0	100.00	100.00	100.00									
	10	99.16	96.79	96.33									
	20	96.12	92.06	90.95									
	30	91.25	86.23	84.49									
	40	84.78	79.37	77.10									
	50	76.82	71.41	68.73									
	60	67.35	62.19	59.27									
	70	56.18	51.60	48.60									
	80	42.98	39.28	36.36									
	90	26.63	24.23	21.79									
	95	16.41	14.89	13.02									
	99	5.49	4.89	4.10									

Table 8A.4 Continued

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
1976	99.9	1.25	1.14	0.97									
	0	100.00	100.00	100.00									
	10	99.30	96.25	95.53									
	20	96.02	90.93	89.39									
	30	90.57	84.53	82.25									
	40	83.47	77.03	74.21									
	50	74.93	68.44	65.22									
	60	64.88	58.77	55.33									
	70	53.20	47.85	44.44									
	80	39.67	35.49	32.39									
	90	23.69	21.15	18.74									
	95	14.16	12.67	10.91									
	99	4.42	3.95	3.27									
	99.9	1.08	0.93	0.82									
1981	0	100.00	100.00	100.00									
	10	99.51	96.24	95.58									
	20	96.83	90.74	89.21									
	30	91.46	84.10	81.82									
	40	84.26	76.41	73.53									
	50	75.43	67.68	64.42									
	60	65.06	57.86	54.45									
	70	53.10	46.91	43.48									
	80	39.35	34.53	31.41									
	90	23.13	20.22	17.79									
	95	13.55	11.81	10.04									

		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	99	3.87	3.34	2.60									
	99.9	0.66	0.53	0.39									
1985	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.57	95.98	95.30	99.59	96.10	95.24	99.96	96.27	95.40	99.96	96.27	95.40
	20	97.18	90.39	88.78	97.45	90.54	88.68	98.31	90.81	88.96	98.31	90.82	88.97
	30	92.01	83.74	81.33	92.53	83.83	81.20	93.52	84.15	81.53	93.52	84.15	81.52
	40	84.93	76.08	73.06	85.46	76.07	72.84	86.49	76.43	73.20	86.49	76.41	73.18
	50	76.17	67.36	63.97	76.67	67.32	63.66	77.69	67.68	64.00	77.68	67.66	63.98
	60	65.82	57.60	54.05	66.30	57.55	53.66	67.24	57.87	53.96	67.22	57.85	53.94
	70	53.88	46.74	43.24	54.29	46.67	42.78	55.10	46.98	43.06	55.07	46.93	43.02
	80	40.08	34.53	31.30	40.40	34.48	30.90	41.05	34.76	31.12	40.99	34.72	31.07
	90	23.67	20.33	17.85	23.97	20.33	17.53	24.41	20.53	17.67	24.37	20.48	17.64
	95	13.76	11.84	10.09	14.07	11.88	9.90	14.36	12.03	10.00	14.30	11.99	9.97
	99	3.75	3.31	2.71	4.04	3.40	2.64	4.16	3.48	2.69	4.11	3.44	2.67
	99.9	0.60	0.53	0.38	0.72	0.61	0.45	0.73	0.64	0.46	0.74	0.62	0.44
1987	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.59	96.10	95.22	99.59	96.10	95.24	99.96	96.27	95.40	99.96	96.27	95.40
	20	97.45	90.54	88.68	97.45	90.54	88.68	98.31	90.81	88.96	98.31	90.82	88.97
	30	92.52	83.83	81.21	92.53	83.83	81.20	93.52	84.15	81.53	93.52	84.15	81.52
	40	85.47	76.08	72.86	85.46	76.07	72.84	86.49	76.43	73.20	86.49	76.41	73.18
	50	76.68	67.33	63.69	76.67	67.32	63.66	77.69	67.68	64.00	77.68	67.66	63.98
	60	66.33	57.58	53.70	66.30	57.55	53.66	67.24	57.87	53.96	67.22	57.85	53.94
	70	54.31	46.70	42.82	54.29	46.67	42.78	55.10	46.98	43.06	55.07	46.93	43.02
	80	40.44	34.52	30.94	40.40	34.48	30.90	41.05	34.76	31.12	40.99	34.72	31.07
	90	24.02	20.37	17.57	23.97	20.33	17.53	24.41	20.53	17.67	24.37	20.48	17.64
	95	14.10	11.92	9.93	14.07	11.88	9.90	14.36	12.03	10.00	14.30	11.99	9.97
	99	4.07	3.44	2.67	4.04	3.40	2.64	4.16	3.48	2.69	4.11	3.44	2.67
	99.9	0.75	0.63	0.46	0.72	0.61	0.45	0.73	0.64	0.46	0.74	0.62	0.44
1988	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.61	96.15	95.25	99.61	96.15	95.39	99.96	96.33	95.44	99.97	96.32	95.59
	20	97.55	90.66	88.75	97.55	90.63	88.89	98.46	90.98	89.10	98.47	90.95	89.24

(continued)

Table 8A.4 Continued

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
	30	92.74	84.04	81.30	92.73	83.99	81.42	93.77	84.41	81.70	93.76	84.36	81.82
	40	85.79	76.37	73.01	85.76	76.31	73.10	86.83	76.75	73.40	86.81	76.69	73.52
	50	77.13	67.72	63.95	77.08	67.63	64.00	78.13	68.09	64.31	78.08	68.01	64.38
	60	66.87	58.08	54.06	66.78	57.98	54.10	67.78	58.40	54.38	67.69	58.30	54.42
	70	54.97	47.30	43.24	54.85	47.17	43.25	55.75	47.59	43.52	55.63	47.46	43.51
	80	41.15	35.16	31.41	40.98	35.00	31.36	41.73	35.41	31.61	41.55	35.24	31.56
	90	24.67	21.02	18.04	24.46	20.83	17.96	25.05	21.16	18.14	24.83	20.98	18.06
	95	14.67	12.52	10.35	14.47	12.35	10.25	14.93	12.62	10.41	14.72	12.44	10.31
	99	4.41	3.76	2.90	4.24	3.63	2.84	4.48	3.81	2.91	4.30	3.66	2.83
	99.9	0.81	0.70	0.53	0.73	0.64	0.50	0.82	0.69	0.53	0.73	0.63	0.51
1989	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.63	96.16	95.23	99.63	96.15	95.34	99.99	96.36	95.46	99.99	96.35	95.57
	20	97.69	90.74	88.83	97.69	90.72	88.92	98.72	91.09	89.21	98.73	91.07	89.30
	30	92.97	84.19	81.42	92.96	84.14	81.50	94.13	84.58	81.85	94.13	84.55	81.94
	40	86.09	76.57	73.20	86.07	76.51	73.25	87.26	76.97	73.61	87.24	76.91	73.67
	50	77.48	67.94	64.14	77.43	67.85	64.17	78.57	68.33	64.52	78.52	68.25	64.56
	60	67.26	58.32	54.29	67.18	58.21	54.28	68.21	58.67	54.61	68.14	58.56	54.62
	70	55.38	47.56	43.53	55.27	47.45	43.49	56.20	47.87	43.80	56.08	47.74	43.76
	80	41.55	35.40	31.68	41.39	35.25	31.60	42.17	35.62	31.85	42.00	35.47	31.77
	90	24.99	21.19	18.29	24.80	21.01	18.19	25.37	21.35	18.37	25.16	21.16	18.27
	95	14.98	12.66	10.57	14.77	12.50	10.49	15.20	12.77	10.61	15.01	12.59	10.51
	99	4.47	3.78	2.99	4.36	3.69	2.95	4.55	3.84	2.99	4.41	3.72	2.95
	99.9	0.84	0.73	0.54	0.76	0.67	0.50	0.86	0.75	0.52	0.75	0.65	0.52

1990	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.55	96.09	95.15	99.55	96.08	95.22	99.99	96.30	95.38	99.99	96.30	95.44
	20	97.50	90.56	88.66	97.50	90.54	88.72	98.71	90.92	89.08	98.71	90.90	89.13
	30	92.76	83.90	81.24	92.74	83.86	81.29	94.07	84.34	81.73	94.06	84.30	81.77
	40	85.84	76.22	73.01	85.81	76.16	73.04	87.14	76.65	73.48	87.12	76.59	73.50
	50	77.23	67.59	64.00	77.17	67.51	64.00	78.43	67.99	64.39	78.38	67.91	64.38
	60	67.00	57.94	54.12	66.91	57.84	54.09	68.04	58.30	54.44	67.95	58.18	54.42
	70	55.10	47.15	43.36	54.99	47.03	43.30	55.96	47.46	43.62	55.83	47.32	43.56
	80	41.28	35.02	31.55	41.11	34.87	31.48	41.92	35.25	31.69	41.75	35.08	31.62
	90	24.73	20.80	18.12	24.54	20.64	18.05	25.08	20.92	18.20	24.88	20.76	18.11
	95	14.65	12.29	10.39	14.45	12.14	10.31	14.86	12.39	10.45	14.65	12.21	10.35
	99	4.36	3.63	2.89	4.20	3.52	2.81	4.43	3.66	2.90	4.25	3.52	2.83
	99.9	0.81	0.68	0.47	0.71	0.57	0.44	0.81	0.67	0.46	0.72	0.59	0.45
1991	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.47	96.06	95.22	99.48	96.06	95.27	99.96	96.26	95.41	99.96	96.25	95.47
	20	97.39	90.41	88.67	97.40	90.41	88.72	98.69	90.76	89.01	98.70	90.76	89.06
	30	92.95	83.67	81.20	92.96	83.66	81.23	94.46	84.07	81.58	94.47	84.07	81.62
	40	86.29	75.93	72.92	86.30	75.90	72.92	87.83	76.34	73.28	87.85	76.31	73.30
	50	77.78	67.23	63.83	77.78	67.19	63.82	79.28	67.64	64.18	79.27	67.60	64.19
	60	67.60	57.57	54.00	67.58	57.52	53.97	68.94	57.94	54.30	68.93	57.89	54.27
	70	55.67	46.82	43.28	55.63	46.74	43.24	56.79	47.14	43.50	56.74	47.08	43.46
	80	41.78	34.76	31.49	41.71	34.67	31.42	42.61	34.98	31.61	42.53	34.88	31.54
	90	25.11	20.68	18.14	25.02	20.59	18.05	25.59	20.79	18.14	25.50	20.69	18.06
	95	14.89	12.18	10.38	14.79	12.08	10.29	15.18	12.26	10.39	15.05	12.15	10.30
	99	4.39	3.57	2.89	4.28	3.49	2.82	4.48	3.60	2.87	4.39	3.52	2.80
	99.9	0.77	0.63	0.50	0.71	0.59	0.46	0.79	0.64	0.47	0.73	0.59	0.45
1992	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.64	95.98	95.09	99.64	95.98	95.11	99.99	96.19	95.30	99.99	96.20	95.33
	20	97.82	90.26	88.45	97.82	90.27	88.47	99.23	90.63	88.81	99.24	90.64	88.83
	30	94.05	83.54	80.92	94.06	83.55	80.95	95.91	83.96	81.34	95.92	83.97	81.37
	40	87.93	75.86	72.64	87.95	75.88	72.67	89.83	76.28	73.03	89.85	76.30	73.06
	50	79.82	67.27	63.64	79.84	67.29	63.66	81.67	67.66	63.99	81.69	67.69	64.02
	60	69.82	57.66	53.82	69.85	57.68	53.84	71.53	58.05	54.12	71.57	58.05	54.16

Table 8A.4 Continued

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
	70	57.84	46.97	43.15	57.86	46.98	43.17	59.30	47.33	43.40	59.33	47.32	43.41
	80	43.57	34.94	31.46	43.57	34.94	31.46	44.74	35.20	31.63	44.75	35.21	31.63
	90	26.37	20.90	18.21	26.38	20.89	18.21	27.06	21.06	18.29	27.05	21.06	18.29
	95	15.78	12.45	10.56	15.77	12.43	10.54	16.21	12.55	10.57	16.21	12.54	10.57
	99	4.62	3.65	3.01	4.60	3.65	3.01	4.73	3.69	3.01	4.73	3.68	3.00
	99.9	0.77	0.63	0.56	0.76	0.62	0.56	0.78	0.64	0.55	0.78	0.64	0.56
1993	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.78	95.98	95.08	99.79	95.95	95.06	100.01	96.12	95.21	100.01	96.10	95.20
	20	98.30	90.35	88.53	98.30	90.28	88.46	99.52	90.56	88.72	99.54	90.51	88.66
	30	95.15	83.72	81.16	95.14	83.64	81.02	96.91	84.01	81.39	96.94	83.92	81.28
	40	89.67	76.23	73.05	89.64	76.09	72.87	91.53	76.52	73.28	91.54	76.39	73.10
	50	82.05	67.83	64.25	81.99	67.65	63.99	83.90	68.11	64.41	83.89	67.93	64.16
	60	72.44	58.42	54.62	72.33	58.20	54.31	74.21	58.69	54.78	74.14	58.47	54.45
	70	60.59	47.82	44.07	60.43	47.56	43.72	62.17	48.08	44.21	62.02	47.82	43.84
	80	46.19	35.79	32.41	45.96	35.52	32.02	47.46	36.03	32.53	47.26	35.73	32.12
	90	28.30	21.64	19.11	28.02	21.36	18.70	29.09	21.79	19.15	28.82	21.49	18.73
	95	17.12	13.02	11.29	16.83	12.75	10.92	17.62	13.13	11.33	17.32	12.85	10.95
	99	5.34	4.02	3.47	5.11	3.84	3.19	5.54	4.08	3.48	5.31	3.88	3.21
	99.9	1.10	0.84	0.76	0.95	0.78	0.65	1.18	0.85	0.78	0.99	0.76	0.66
1994	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.88	95.98	95.07	99.89	95.95	95.08	100.01	96.09	95.12	100.01	96.06	95.15
	20	98.63	90.39	88.55	98.63	90.32	88.52	99.75	90.60	88.66	99.77	90.53	88.63
	30	95.84	83.78	81.17	95.88	83.68	81.07	97.65	84.04	81.32	97.74	83.94	81.25
	40	90.54	76.24	73.06	90.60	76.09	72.89	92.54	76.53	73.20	92.65	76.37	73.05

50	82.85	67.78	64.21	82.87	67.57	63.97	84.86	68.07	64.31	84.94	67.86	64.09
60	73.02	58.35	54.59	72.99	58.11	54.30	74.95	58.61	54.68	74.95	58.36	54.38
70	61.04	47.81	44.09	60.94	47.52	43.74	62.71	48.05	44.16	62.64	47.75	43.80
80	46.59	35.82	32.49	46.40	35.50	32.08	47.88	36.04	32.52	47.73	35.72	32.10
90	28.49	21.56	19.11	28.21	21.22	18.65	29.33	21.72	19.13	29.04	21.39	18.69
95	16.99	12.80	11.18	16.69	12.48	10.76	17.57	12.92	11.20	17.26	12.57	10.77
99	5.06	3.77	3.29	4.80	3.54	3.00	5.28	3.78	3.32	4.98	3.59	2.99
99.9	1.00	0.70	0.63	0.86	0.62	0.52	1.05	0.72	0.66	0.89	0.63	0.53
1995 0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	99.84	96.07	95.17	99.85	96.05	95.14	100.01	96.17	95.21	100.01	96.15	95.20
20	98.53	90.59	88.76	98.54	90.53	88.70	99.73	90.79	88.84	99.75	90.74	88.79
30	95.61	84.09	81.50	95.66	84.01	81.40	97.46	84.33	81.59	97.55	84.26	81.48
40	90.15	76.66	73.48	90.23	76.56	73.34	92.12	76.90	73.55	92.25	76.80	73.41
50	82.47	68.25	64.71	82.53	68.13	64.51	84.40	68.52	64.75	84.49	68.38	64.57
60	72.76	58.83	55.10	72.79	58.68	54.87	74.62	59.10	55.14	74.67	58.95	54.91
70	60.92	48.27	44.61	60.89	48.08	44.35	62.56	48.50	44.61	62.55	48.32	44.32
80	46.58	36.22	32.95	46.48	36.02	32.62	47.84	36.42	32.95	47.74	36.19	32.62
90	28.80	22.00	19.56	28.57	21.77	19.22	29.60	22.13	19.55	29.38	21.89	19.19
95	17.67	13.33	11.66	17.37	13.10	11.35	18.20	13.46	11.70	17.92	13.22	11.36
99	5.76	4.24	3.75	5.52	4.07	3.49	5.97	4.30	3.78	5.74	4.13	3.53
99.9	1.12	0.78	0.84	1.08	0.79	0.80	1.21	0.81	0.87	1.17	0.81	0.83
1996 0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	99.85	96.19	95.30	99.85	96.16	95.31	100.01	96.26	95.32	100.01	96.24	95.36
20	98.61	90.83	88.99	98.60	90.78	88.97	99.80	91.00	89.01	99.81	90.96	89.01
30	95.87	84.45	81.79	95.88	84.34	81.69	97.66	84.64	81.83	97.71	84.54	81.76
40	90.55	77.06	73.80	90.56	76.91	73.66	92.52	77.29	73.84	92.57	77.15	73.70
50	82.88	68.68	65.02	82.84	68.49	64.81	84.87	68.96	65.09	84.88	68.77	64.86
60	73.13	59.27	55.42	73.03	59.02	55.12	75.06	59.57	55.48	75.00	59.34	55.17
70	61.20	48.66	44.92	61.04	48.37	44.53	62.90	48.97	44.97	62.75	48.67	44.59
80	46.71	36.56	33.21	46.41	36.21	32.73	48.10	36.85	33.29	47.81	36.49	32.81
90	28.85	22.22	19.74	28.41	21.83	19.20	29.75	22.43	19.80	29.31	22.02	19.25

(continued)

Table 8A.4 Continued

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
	95	17.63	13.47	11.76	17.13	13.06	11.23	18.22	13.62	11.84	17.71	13.19	11.29
	99	5.63	4.29	3.71	5.22	3.95	3.30	5.86	4.34	3.75	5.43	4.01	3.33
	99.9	0.96	0.69	0.64	0.84	0.61	0.53	0.98	0.72	0.67	0.91	0.63	0.55
1997	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.85	96.26	95.43	99.85	96.22	95.42	100.00	96.34	95.47	100.00	96.31	95.48
	20	98.59	91.05	89.30	98.59	90.93	89.19	99.81	91.18	89.34	99.83	91.08	89.26
	30	95.84	84.80	82.30	95.84	84.63	82.08	97.67	85.01	82.34	97.75	84.83	82.14
	40	90.50	77.56	74.51	90.48	77.29	74.19	92.51	77.81	74.53	92.58	77.52	74.21
	50	82.96	69.33	65.90	82.86	68.97	65.45	84.99	69.64	65.96	84.95	69.27	65.50
	60	73.31	60.04	56.42	73.09	59.57	55.84	75.28	60.37	56.51	75.10	59.91	55.91
	70	61.58	49.53	45.97	61.20	48.96	45.24	63.35	49.88	46.09	62.99	49.31	45.33
	80	47.38	37.50	34.27	46.78	36.83	33.40	48.88	37.87	34.43	48.31	37.16	33.52
	90	29.74	23.21	20.73	28.96	22.45	19.78	30.80	23.51	20.92	30.01	22.70	19.89
	95	18.66	14.39	12.69	17.85	13.66	11.76	19.38	14.62	12.88	18.51	13.86	11.87
	99	6.54	5.00	4.36	5.88	4.46	3.70	6.85	5.13	4.49	6.17	4.59	3.79
	99.9	1.66	1.23	1.07	1.36	1.00	0.85	1.77	1.32	1.14	1.44	1.04	0.90
1998	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.86	96.41	95.59	99.86	96.35	95.71	100.01	96.48	95.61	100.01	96.42	95.77
	20	98.59	91.38	89.64	98.59	91.23	89.64	99.74	91.51	89.66	99.78	91.35	89.69
	30	95.69	85.28	82.82	95.68	85.03	82.67	97.43	85.46	82.84	97.50	85.20	82.71
	40	90.25	78.10	75.13	90.16	77.73	74.83	92.16	78.34	75.15	92.16	77.96	74.87
	50	82.61	69.89	66.58	82.40	69.40	66.11	84.51	70.18	66.63	84.41	69.68	66.18
	60	72.93	60.64	57.14	72.58	60.04	56.50	74.80	60.96	57.24	74.50	60.32	56.58
	70	61.34	50.12	46.65	60.78	49.36	45.84	63.01	50.46	46.79	62.49	49.69	45.95

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
80	34.08	37.48	47.95	35.11	38.41	48.75	33.94	37.16	46.50	34.94	38.04	47.30
90	20.38	23.06	29.92	21.62	24.10	31.02	20.26	22.80	28.95	21.40	23.81	30.02
95	12.27	14.20	18.62	13.57	15.29	19.86	12.18	14.00	18.00	13.38	15.04	19.16
99	4.13	4.90	6.47	5.18	5.84	7.66	4.00	4.77	6.18	5.00	5.66	7.29
99.9	1.07	1.22	1.65	1.64	1.78	2.37	1.02	1.19	1.53	1.55	1.70	2.23
1999												
0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	96.01	96.42	100.01	95.67	96.52	100.00	95.91	96.35	99.82	95.64	96.44	99.81
20	89.96	91.36	99.77	89.81	91.58	99.71	89.89	91.23	98.52	89.80	91.44	98.53
30	83.05	85.21	97.29	83.11	85.57	97.18	82.96	85.01	95.47	83.07	85.35	95.48
40	75.27	78.07	91.77	75.57	78.60	91.76	75.16	77.80	89.83	75.50	78.32	89.95
50	66.63	69.91	84.11	67.21	70.62	84.33	66.48	69.57	82.16	67.07	70.27	82.46
60	57.13	60.66	74.40	57.96	61.59	74.89	56.93	60.28	72.51	57.79	61.17	73.09
70	46.58	50.19	62.59	47.72	51.33	63.40	46.36	49.80	60.85	47.49	50.90	61.72
80	34.77	38.18	48.21	36.22	39.56	49.48	34.55	37.80	46.80	35.96	39.15	48.04
90	21.20	23.98	30.69	22.97	25.62	32.43	21.02	23.68	29.69	22.70	25.23	31.36
95	13.16	15.25	19.69	15.01	16.91	21.60	13.00	15.01	18.98	14.71	16.58	20.79
99	4.87	5.89	7.66	6.40	7.29	9.41	4.71	5.73	7.35	6.14	7.03	8.94
99.9	1.37	1.63	2.24	2.01	2.07	2.77	1.30	1.56	2.09	1.85	1.97	2.56
2000												
0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
10	96.14	96.47	100.01	95.73	96.59	100.00	96.03	96.40	99.80	95.72	96.52	99.80
20	90.23	91.52	99.71	90.07	91.80	99.66	90.09	91.35	98.43	90.00	91.62	98.47
30	83.38	85.49	97.21	83.51	85.92	97.14	83.17	85.22	95.38	83.37	85.69	95.44
40	75.64	78.37	91.71	76.10	79.06	91.78	75.40	78.00	89.78	75.89	78.68	89.96
50	67.01	70.18	83.97	67.81	71.11	84.30	66.74	69.79	81.99	67.56	70.69	82.44
60	57.41	60.88	74.15	58.57	62.09	74.86	57.13	60.44	72.25	58.29	61.61	73.03
70	46.78	50.34	62.13	48.36	51.84	63.29	46.52	49.92	60.41	48.02	51.37	61.62
80	34.94	38.29	47.81	36.92	40.09	49.50	34.65	37.87	46.40	36.54	39.61	48.06
90	21.29	24.02	30.28	23.60	26.05	32.53	21.03	23.64	29.28	23.18	25.58	31.44
95	13.14	15.15	19.32	15.52	17.26	21.83	12.90	14.86	18.57	15.12	16.86	20.94
99	4.68	5.62	7.24	6.74	7.46	9.57	4.52	5.44	6.85	6.44	7.20	9.06
99.9	1.34	1.57	2.08	2.49	2.64	3.42	1.25	1.50	1.94	2.32	2.50	3.20

(continued)

Table 8A.4 Continued

Year	p point%	Income concept			Income concept, excl. capital gain			Income concept, excl. imputed net rent			Income concept, excl. capital gain and imputed net rent		
		FI	GI	DI	FI	GI	DI	FI	GI	DI	FI	GI	DI
2001	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.78	96.54	95.77	99.79	96.50	95.83	100.00	96.60	95.80	100.00	96.57	95.88
	20	98.42	91.57	90.00	98.43	91.48	90.00	99.71	91.77	90.09	99.74	91.68	90.08
	30	95.38	85.52	83.26	95.41	85.39	83.16	97.18	85.81	83.39	97.28	85.66	83.30
	40	89.88	78.41	75.60	89.92	78.22	75.43	91.81	78.78	75.80	91.91	78.58	75.64
	50	82.21	70.28	67.13	82.17	70.01	66.85	84.19	70.70	67.35	84.22	70.44	67.08
	60	72.65	61.10	57.74	72.52	60.77	57.36	74.51	61.56	58.01	74.42	61.23	57.63
	70	61.15	50.72	47.30	60.91	50.31	46.83	62.84	51.19	47.64	62.64	50.78	47.15
	80	47.39	38.84	35.63	47.01	38.37	35.06	48.84	39.36	36.01	48.49	38.84	35.41
	90	30.54	24.76	22.11	29.99	24.19	21.44	31.65	25.21	22.47	31.11	24.62	21.77
	95	19.97	16.05	14.08	19.36	15.48	13.40	20.79	16.42	14.41	20.14	15.83	13.67
	99	8.26	6.52	5.65	7.71	6.08	5.14	8.69	6.75	5.90	8.12	6.27	5.36
	99.9	2.80	2.20	1.90	2.64	2.08	1.77	3.00	2.31	2.02	2.83	2.19	1.89
2002	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.75	96.51	95.79	99.75	96.47	95.92	100.01	96.59	95.81	100.01	96.55	95.97
	20	98.32	91.52	89.99	98.32	91.41	90.04	99.62	91.69	90.05	99.65	91.59	90.14
	30	95.20	85.42	83.26	95.19	85.26	83.22	97.06	85.68	83.37	97.13	85.52	83.36
	40	89.59	78.30	75.58	89.54	78.07	75.45	91.56	78.68	75.79	91.58	78.45	75.67
	50	81.89	70.16	67.05	81.77	69.86	66.81	83.94	70.62	67.32	83.87	70.31	67.09
	60	72.31	60.97	57.63	72.08	60.58	57.26	74.25	61.43	57.92	74.05	61.03	57.54
	70	60.91	50.59	47.20	60.53	50.10	46.69	62.69	51.06	47.51	62.32	50.56	46.98
	80	47.28	38.78	35.55	46.72	38.18	34.89	48.79	39.25	35.89	48.24	38.63	35.19
	90	30.54	24.71	22.05	29.76	24.00	21.26	31.66	25.14	22.34	30.86	24.39	21.53
	95	19.97	16.03	13.94	19.13	15.28	13.12	20.81	16.38	14.24	19.90	15.60	13.37

Year	Pct	8.21/2.45	6.47/1.87	5.46/1.54	7.40/1.69	5.82/1.38	4.75/1.04	8.67/2.63	6.72/1.96	5.69/1.62	7.81/1.80	6.00/1.44	4.93/1.05
	99	8.21	6.47	5.46	7.40	5.82	4.75	8.67	6.72	5.69	7.81	6.00	4.93
	99.9	2.45	1.87	1.54	1.69	1.38	1.04	2.63	1.96	1.62	1.80	1.44	1.05
2003	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.74	96.46	95.77	99.74	96.43	95.78	100.00	96.54	95.77	100.00	96.50	95.80
	20	98.27	91.45	90.01	98.27	91.36	89.94	99.61	91.60	90.04	99.64	91.50	89.99
	30	95.14	85.43	83.32	95.15	85.28	83.17	97.02	85.67	83.42	97.09	85.52	83.28
	40	89.68	78.34	75.74	89.65	78.13	75.49	91.71	78.70	75.92	91.75	78.48	75.68
	50	82.12	70.25	67.27	82.02	69.95	66.92	84.19	70.66	67.50	84.15	70.37	67.16
	60	72.59	61.08	57.89	72.39	60.70	57.43	74.58	61.56	58.14	74.42	61.18	57.69
	70	61.05	50.70	47.45	60.71	50.23	46.89	62.85	51.20	47.77	62.57	50.71	47.17
	80	47.39	38.92	35.85	46.90	38.36	35.16	48.91	39.35	36.14	48.42	38.78	35.43
	90	30.51	24.73	22.29	29.82	24.09	21.52	31.64	25.13	22.58	30.95	24.46	21.76
	95	19.79	15.93	14.10	19.08	15.28	13.31	20.65	16.30	14.40	19.89	15.62	13.58
	99	8.11	6.40	5.57	7.44	5.85	4.89	8.63	6.67	5.85	7.92	6.08	5.13
	99.9	2.09	1.69	1.44	2.39	1.91	1.62	2.25	1.78	2.31	2.57	2.01	1.64
2004	0	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
	10	99.82	96.56	95.86	99.82	96.50	96.02	100.00	96.62	95.87	100.00	96.56	96.07
	20	98.46	91.66	90.20	98.45	91.52	90.25	99.70	91.81	90.29	99.72	91.67	90.34
	30	95.38	85.67	83.58	95.36	85.43	83.50	97.17	85.93	83.69	97.20	85.69	83.65
	40	89.91	78.65	76.03	89.82	78.32	75.84	91.83	78.99	76.23	91.81	78.66	76.06
	50	82.27	70.59	67.63	82.07	70.16	67.29	84.26	71.01	67.87	84.11	70.57	67.54
	60	72.78	61.46	58.27	72.41	60.91	57.78	74.72	61.95	58.60	74.39	61.38	58.10
	70	61.35	51.10	47.91	60.78	50.44	47.24	63.16	51.64	48.28	62.63	50.94	47.58
	80	47.70	39.25	36.28	46.93	38.47	35.43	49.28	39.80	36.67	48.48	38.95	35.78
	90	30.89	25.14	22.67	29.82	24.18	21.66	32.10	25.62	23.08	30.97	24.61	22.00
	95	20.37	16.45	14.56	19.16	15.41	13.46	21.27	16.86	14.93	19.98	15.77	13.76
	99	8.83	7.01	6.13	7.57	6.00	5.09	9.38	7.30	6.42	8.02	6.23	5.32
	99.9	3.39	2.64	2.28	2.70	2.18	1.92	3.65	2.79	2.53	2.97	2.30	2.06

Notes: FI = Factor income, GI = Gross income, DI = Disposable income.
Source: Based on IDS data in 1987–2004, Statistics Finland.

Table 8A.5 Gross income items in deciles and in top 5%, 1%, and 0.1% in Finland, 1966–2004

Year	Deciles	Wages	Entrepreneurial income	Capital income	Transfers received	Gross income	Disposable income
1966	1	31.36	32.27	4.33	32.04	100	91.66
	5	57.39	25.55	4.72	12.34	100	88.21
	10	73.14	15.08	7.78	4.00	100	79.17
	Top 5%	69.25	17.26	9.29	4.19	100	77.78
	Top 1%	53.59	28.58	15.06	2.76	100	76.06
	Top 0.1%						
	Total	66.82	18.38	5.54	9.26	100	84.34
1971	1	25.43	25.00	8.06	41.51	100	94.08
	5	62.35	18.24	5.13	14.27	100	84.50
	10	71.72	14.13	6.49	7.66	100	71.05
	Top 5%	67.97	16.74	6.94	8.35	100	68.61
	Top 1%	53.06	34.98	8.19	3.77	100	64.70
	Top 0.1%	32.30	51.03	14.50	2.17	100	61.86
	Total	66.68	14.16	5.96	13.20	100	80.33
1976	1	22.94	22.46	3.94	50.67	100	92.03
	5	67.47	12.82	4.04	15.67	100	78.84
	10	73.77	12.24	5.19	8.80	100	65.24
	Top 5%	69.33	15.06	5.86	9.75	100	62.71
	Top 1%	54.01	26.33	7.65	12.01	100	59.80
	Top 0.1%	55.65	39.62	3.02	1.71	100	60.81
	Total	68.82	11.43	4.30	15.45	100	75.02
1981	1	27.87	14.84	4.64	52.65	100	92.07
	5	68.31	11.83	2.71	17.15	100	80.53
	10	76.19	11.01	4.22	8.58	100	66.30
	Top 5%	73.87	12.80	4.98	8.35	100	63.32
	Top 1%	65.02	19.46	6.17	9.34	100	56.30
	Top 0.1%	36.23	42.48	7.06	14.24	100	51.69
	Total	69.72	10.29	3.24	16.75	100	76.66

Year	Group						
1985	1	33.07	10.17	4.25	52.51	100	90.04
	5	68.54	8.73	3.05	19.68	100	77.00
	10	75.87	10.34	4.00	9.78	100	63.79
	Top 5%	72.70	11.16	4.67	11.46	100	61.47
	Top 1%	66.33	11.29	5.41	16.97	100	55.91
	Top 0.1%	53.88	10.16	7.13	28.82	100	49.03
	Total	68.91	8.73	3.35	19.01	100	73.98
1987	1	27.32	11.37	5.93	55.38	100	91.41
	5	68.82	6.20	3.57	21.41	100	77.79
	10	75.19	8.39	6.09	10.33	100	63.35
	Top 5%	73.19	8.74	7.11	10.97	100	60.88
	Top 1%	66.79	11.20	10.89	11.11	100	55.59
	Top 0.1%	51.76	13.81	21.65	12.79	100	51.64
	Total	68.29	6.98	4.58	20.15	100	74.22
1988	1	28.30	9.19	6.11	56.41	100	91.04
	5	68.74	6.28	3.64	21.33	100	76.94
	10	73.36	8.54	7.46	10.63	100	62.15
	Top 5%	69.66	9.95	9.07	11.31	100	59.62
	Top 1%	55.61	15.04	15.56	13.80	100	55.02
	Top 0.1%	39.20	13.95	28.35	18.51	100	47.36
	Total	67.83	6.93	4.89	20.35	100	73.18
1989	1	28.73	7.44	4.82	59.01	100	92.42
	5	65.87	7.25	4.17	22.71	100	77.75
	10	71.73	11.31	7.28	9.68	100	63.06
	Top 5%	68.52	13.28	8.81	9.39	100	60.91
	Top 1%	58.64	18.48	14.07	8.81	100	56.63
	Top 0.1%	33.92	26.47	28.26	11.36	100	52.16
	Total	67.11	7.85	4.86	20.17	100	73.75
1990	1	27.94	6.84	5.37	59.86	100	93.56
	5	65.99	7.00	3.91	23.10	100	78.58
	10	72.68	10.25	7.47	9.60	100	65.02
	Top 5%	70.29	11.90	8.66	9.15	100	62.98
	Top 1%	60.15	17.41	13.52	8.92	100	58.24
	Top 0.1%	51.26	22.36	24.26	2.12	100	51.14
	Total	66.79	7.37	5.10	20.73	100	75.06

Table 8A.5 Continued

Year	Deciles	Wages	Entrepreneurial income	Capital income	Transfers received	Gross income	Disposable income
1991	1	28.00	8.30	5.53	58.17	100	93.18
	5	61.08	6.93	5.52	26.48	100	79.95
	10	69.68	8.84	9.91	11.58	100	66.71
	Top 5%	67.40	9.82	11.83	10.95	100	64.66
	Top 1%	53.64	15.64	17.96	12.76	100	61.06
	Top 0.1%	37.77	25.76	26.05	10.41	100	57.84
	Total	63.73	6.49	6.55	23.23	100	76.41
1992	1	22.20	6.97	6.21	64.62	100	92.05
	5	57.07	5.99	5.94	31.01	100	78.48
	10	66.55	9.52	9.51	14.43	100	64.52
	Top 5%	62.25	11.79	11.10	14.85	100	62.61
	Top 1%	47.62	17.58	16.99	17.81	100	60.66
	Top 0.1%	28.79	26.39	26.37	18.46	100	57.20
	Total	59.39	6.28	6.74	27.59	100	74.59
1993	1	19.31	7.52	5.73	67.44	100	92.96
	5	49.73	6.19	6.88	37.20	100	79.76
	10	63.80	8.06	13.69	14.45	100	65.65
	Top 5%	58.86	9.62	16.92	14.60	100	64.46
	Top 1%	48.99	12.54	24.49	13.97	100	62.56
	Top 0.1%	29.36	4.67	52.99	12.98	100	63.87
	Total	55.13	6.26	8.27	30.34	100	75.23
1994	1	13.56	4.49	4.82	77.13	100	90.73
	5	49.95	6.78	6.08	37.19	100	77.43
	10	62.44	9.98	13.04	14.54	100	64.30
	Top 5%	59.66	10.02	16.79	13.52	100	63.14
	Top 1%	45.55	15.21	27.20	12.03	100	62.23
	Top 0.1%	24.86	6.17	56.77	12.20	100	63.93
	Total	53.88	7.12	7.95	31.06	100	73.53

Year								
1995	1	14.17	6.00	5.01	74.82	100	90.38
	5	51.46	5.65	6.10	36.79	100	76.72
	10	61.04	10.03	14.77	14.16	100	64.25
	Top 5%	57.20	11.53	18.77	12.50	100	62.82
	Top 1%	41.58	13.48	36.23	8.72	100	63.11
	Top 0.1%	18.24	20.05	60.57	1.14	100	67.55
	Total	54.60	7.06	8.46	29.88	100	73.03
1996	1	17.76	5.08	5.09	72.07	100	90.11
	5	50.19	4.86	7.04	37.90	100	76.83
	10	63.09	7.82	16.18	12.91	100	64.05
	Top 5%	58.59	8.63	20.79	11.99	100	62.91
	Top 1%	43.08	9.71	36.76	10.45	100	62.12
	Top 0.1%	23.46	11.73	57.10	7.72	100	63.05
	Total	55.73	6.19	9.06	29.02	100	72.85
1997	1	18.60	5.20	5.64	70.55	100	90.55
	5	49.91	5.56	7.57	36.96	100	77.55
	10	59.99	9.00	19.56	11.44	100	65.48
	Top 5%	54.54	10.25	25.20	10.01	100	64.42
	Top 1%	38.22	12.19	41.94	7.65	100	63.45
	Top 0.1%	21.82	10.25	66.05	1.89	100	63.50
	Total	55.73	6.52	10.31	27.44	100	73.71
1998	1	16.70	4.73	5.04	73.54	100	91.04
	5	51.92	5.18	8.27	34.63	100	77.36
	10	59.22	9.20	21.20	10.38	100	65.60
	Top 5%	54.19	9.70	27.63	8.49	100	64.66
	Top 1%	33.59	10.45	49.59	6.37	100	64.03
	Top 0.1%	8.33	4.61	83.72	3.33	100	69.09
	Total	56.61	6.31	11.23	25.84	100	73.57
1999	1	16.23	4.63	5.64	73.50	100	90.90
	5	54.20	6.65	8.20	30.95	100	77.26
	10	56.60	8.20	26.30	8.90	100	65.83
	Top 5%	50.31	8.51	34.03	7.14	100	64.83
	Top 1%	32.83	5.42	56.62	5.13	100	63.22
	Top 0.1%	21.56	5.14	71.14	2.16	100	62.99
	Total	56.59	6.09	12.98	24.33	100	73.62
2000	1	18.97	4.71	5.44	70.88	100	90.70
	5	53.83	5.69	9.01	31.48	100	77.29

Table 8A.5 Continued

Year	Deciles	Wages	Entrepreneurial income	Capital income	Transfers received	Gross income	Disposable income
	10	52.99	8.31	29.99	8.72	100	66.33
	Top 5%	46.00	8.71	38.86	6.43	100	65.47
	Top 1%	25.90	7.06	63.69	3.34	100	65.16
	Top 0.1%	6.37	8.26	83.99	1.38	100	65.44
	Total	56.45	6.08	14.24	23.24	100	73.63
2001	1	20.75	5.38	5.39	68.48	100	90.67
	5	55.32	6.04	8.20	30.44	100	78.25
	10	60.10	7.61	24.19	8.09	100	66.21
	Top 5%	54.28	7.90	31.53	6.28	100	64.87
	Top 1%	36.38	7.08	53.67	2.87	100	64.06
	Top 0.1%	15.80	4.11	78.44	1.66	100	63.65
	Total	58.44	5.87	12.33	23.36	100	74.54
2002	1	21.56	4.62	5.95	67.87	100	90.49
	5	56.80	4.25	8.44	30.51	100	78.67
	10	60.48	7.23	24.08	8.21	100	66.57
	Top 5%	55.42	7.79	30.66	6.13	100	64.76
	Top 1%	39.63	6.09	51.81	2.47	100	62.75
	Top 0.1%	28.97	1.77	68.63	0.64	100	61.16
	Total	58.35	5.79	12.53	23.33	100	74.94
2003	1	23.12	4.25	6.34	66.28	100	90.31
	5	54.78	5.58	9.07	30.56	100	79.48
	10	57.46	7.05	27.25	8.24	100	67.69
	Top 5%	51.02	6.49	35.39	7.10	100	66.25
	Top 1%	29.36	5.69	61.30	3.65	100	65.25
	Top 0.1%	8.42	2.18	88.64	0.76	100	66.42
	Total	57.38	5.53	13.57	23.52	100	75.54
2004	1	19.88	3.79	5.60	70.73	100	91.07
	5	59.24	4.87	8.65	27.24	100	79.18
	10	55.22	6.55	29.90	8.33	100	67.97
	Top 5%	47.71	6.31	38.98	7.01	100	66.72
	Top 1%	27.62	5.26	63.39	3.73	100	65.64
	Top 0.1%	5.33	0.08	93.99	0.60	100	67.73
	Total	56.95	5.33	14.58	23.14	100	75.65

Source: Based on IDS data in 1987–2004 and HES data in 1966–1985, Statistics Finland.

Table 8A.6 Capital income items in deciles and in top 5%, 1%, and 0.1% in Finland, 1987 2004

Year	Deciles	Interest income	Imputed net rents	Rental income	Realized capital gains	Other capital income	Total capital income
1987	1	14.88	77.48	5.52	1.29	0.83	100
	5	20.55	69.58	5.64	3.19	1.05	100
	10	41.93	35.11	16.43	5.86	0.67	100
	Top 5%	47.52	28.18	17.17	6.71	0.41	100
	Top 1%	52.73	14.64	22.72	9.88	0.04	100
	Top 0.1%	62.43	6.86	18.05	12.66	0.00	100
	Total	28.78	57.43	10.13	2.68	0.98	100
1988	1	18.11	72.66	5.38	2.04	1.80	100
	5	26.40	59.53	6.53	6.27	1.27	100
	10	35.34	25.60	15.56	22.48	1.02	100
	Top 5%	34.73	20.06	18.92	25.59	0.71	100
	Top 1%	32.28	12.33	20.00	35.27	0.13	100
	Top 0.1%	25.24	6.30	14.95	53.51	0.00	100
	Total	30.97	47.76	10.23	9.64	1.40	100
1989	1	18.79	75.47	2.58	1.38	1.78	100
	5	27.74	62.48	5.47	2.54	1.77	100
	10	35.01	28.79	12.31	18.97	4.91	100
	Top 5%	35.71	22.92	13.25	23.18	4.94	100
	Top 1%	34.79	13.35	14.34	31.48	6.05	100
	Top 0.1%	35.22	6.54	12.28	45.76	0.20	100
	Total	29.69	50.36	8.10	8.48	3.37	100
1990	1	19.72	72.24	2.80	1.02	4.21	100
	5	31.85	58.55	3.67	4.51	1.42	100
	10	35.59	33.71	11.53	17.39	1.78	100
	Top 5%	37.62	26.79	11.69	21.66	2.24	100
	Top 1%	34.20	13.76	10.89	37.85	3.30	100
	Top 0.1%	16.75	5.50	11.78	61.22	4.75	100
	Total	31.21	52.11	7.89	6.93	1.87	100
1991	1	24.94	68.48	3.95	1.42	1.20	100
	5	28.82	65.39	4.30	0.67	0.82	100
	10	42.90	34.08	12.14	8.23	2.65	100
	Top 5%	45.85	27.40	12.45	11.23	3.07	100
	Top 1%	46.04	18.16	11.24	20.33	4.23	100

Table 8A.6 Continued

Year	Deciles	Interest income	Imputed net rents	Rental income	Realized capital gains	Other capital income	Total capital income
	Top 0.1%	41.66	10.78	5.08	31.15	11.33	100
	Total	33.78	53.00	7.47	3.60	2.15	100
1992	1	18.59	73.93	3.40	2.95	1.13	100
	5	21.49	68.61	3.56	3.67	2.68	100
	10	43.44	39.61	11.25	1.61	4.09	100
	Top 5%	47.27	32.67	13.17	2.01	4.88	100
	Top 1%	57.92	21.83	11.77	3.07	5.41	100
	Top 0.1%	56.01	11.94	21.12	0.00	10.93	100
	Total	29.80	59.22	7.13	1.20	2.65	100
1993	1	14.49	74.95	2.40	1.30	6.85	100
	5	19.13	67.52	5.17	5.31	2.88	100
	10	34.88	29.78	10.32	18.86	6.16	100
	Top 5%	36.90	23.28	11.09	21.55	7.19	100
	Top 1%	38.89	13.36	13.80	25.98	7.97	100
	Top 0.1%	36.00	5.31	20.22	33.32	5.14	100
	Total	25.18	52.92	7.59	10.09	4.22	100
1994	1	14.62	74.73	5.94	1.18	3.53	100
	5	10.06	76.76	6.67	2.80	3.71	100
	10	29.01	32.68	8.30	24.00	6.01	100
	Top 5%	32.31	24.89	8.04	27.81	6.96	100
	Top 1%	39.52	12.81	5.38	35.49	6.80	100
	Top 0.1%	45.17	4.53	1.39	44.89	4.02	100
	Total	18.13	57.90	7.84	12.02	4.11	100
1995	1	8.30	83.22	4.70	1.75	2.03	100
	5	7.88	79.10	7.37	2.69	2.96	100
	10	41.16	29.22	8.83	15.32	5.47	100
	Top 5%	48.45	22.44	7.83	15.21	6.07	100
	Top 1%	59.97	9.87	4.87	19.38	5.91	100
	Top 0.1%	78.07	3.39	1.10	15.86	1.59	100
	Total	23.14	54.86	8.36	9.47	4.17	100

Year							
1996	1	6.98	81.37	6.53	2.29	2.83	100
	5	11.35	76.77	5.70	3.42	2.77	100
	10	39.67	26.70	10.28	18.85	4.50	100
	Top 5%	44.22	20.29	9.45	21.34	4.69	100
	Top 1%	52.93	9.52	5.54	27.98	4.03	100
	Top 0.1%	47.76	3.21	2.42	42.15	4.46	100
	Total	22.38	55.24	8.38	10.29	3.70	100
1997	1	5.09	82.26	2.68	6.19	3.78	100
	5	6.03	81.06	4.66	4.77	3.47	100
	10	34.84	23.02	10.78	27.84	3.52	100
	Top 5%	39.13	16.48	10.22	30.96	3.22	100
	Top 1%	48.70	7.30	7.68	33.20	3.12	100
	Top 0.1%	62.97	2.02	0.76	33.49	0.77	100
	Total	20.64	52.52	8.38	15.24	3.22	100
1998	1	4.41	85.90	3.93	4.09	1.66	100
	5	8.18	76.75	4.52	6.57	3.97	100
	10	35.96	20.89	9.71	31.13	2.31	100
	Top 5%	38.88	14.79	9.29	35.12	1.93	100
	Top 1%	44.65	5.39	6.40	42.46	1.10	100
	Top 0.1%	38.86	1.35	5.29	54.21	0.29	100
	Total	22.57	48.05	8.20	18.10	3.08	100
1999	1	7.04	85.05	4.93	1.49	1.49	100
	5	7.75	77.51	6.59	5.73	2.43	100
	10	36.87	16.41	7.22	36.78	2.71	100
	Top 5%	39.57	11.30	6.68	39.77	2.68	100
	Top 1%	44.15	4.25	4.05	45.52	2.02	100
	Top 0.1%	50.98	1.37	6.17	40.94	0.53	100
	Total	24.55	42.73	6.79	23.16	2.77	100
2000	1	6.21	85.76	2.27	1.46	4.31	100
	5	11.40	72.31	5.08	6.55	4.66	100
	10	37.73	13.39	5.79	40.59	2.50	100
	Top 5%	40.13	8.86	5.26	43.38	2.37	100

Table 8A.6 Continued

Year	Deciles	Interest income	Imputed net rents	Rental income	Realized capital gains	Other capital income	Total capital income
	Top 1%	43.33	3.17	2.85	48.90	1.76	100
	Top 0.1%	34.20	0.64	0.63	64.42	0.11	100
	Total	26.06	38.95	5.83	26.36	2.80	100
2001	1	8.34	78.91	5.82	3.14	3.79	100
	5	7.92	78.08	5.94	3.94	4.12	100
	10	54.70	16.76	7.58	17.24	3.71	100
	Top 5%	60.09	11.05	7.13	18.25	3.48	100
	Top 1%	69.06	4.27	5.07	18.53	3.07	100
	Top 0.1%	82.01	0.90	1.04	13.00	3.05	100
	Total	32.91	45.07	7.14	11.10	3.78	100
2002	1	14.62	80.09	2.20	1.36	1.72	100
	5	9.11	77.30	5.50	3.99	4.11	100
	10	50.79	18.63	6.93	19.01	4.64	100
	Top 5%	55.86	12.60	5.75	21.40	4.39	100
	Top 1%	63.90	4.50	3.73	24.93	2.94	100
	Top 0.1%	45.19	1.17	1.38	49.62	2.64	100
	Total	31.57	46.40	6.62	11.01	4.39	100
2003	1	6.49	81.81	6.41	3.50	1.79	100
	5	8.03	80.42	3.13	2.90	5.52	100
	10	56.19	17.56	6.06	16.11	4.08	100
	Top 5%	61.75	11.83	5.47	17.35	3.60	100
	Top 1%	69.52	3.58	4.39	19.53	2.99	100
	Top 0.1%	65.10	0.90	6.95	25.50	1.55	100
	Total	34.25	45.18	6.11	10.32	4.14	100
2004	1	6.05	85.20	4.78	2.35	1.63	100
	5	10.94	76.77	4.69	3.31	4.29	100
	10	57.05	14.88	4.94	19.50	3.63	100
	Top 5%	60.93	9.97	4.56	21.26	3.28	100
	Top 1%	65.65	3.52	2.67	25.95	2.20	100
	Top 0.1%	66.50	0.58	2.20	28.95	1.78	100
	Total	36.77	41.35	5.56	12.56	3.75	100

Source: Based on IDS data in 1987–2004, Statistics Finland.

Table 8A.7 Tax items in deciles and top 5%, 1%, and 0.1% in Finland, 1987–2004

Year	Decile	State earned income tax[1]	State capital income tax	Property tax	Municipal tax	Other taxes	Other current transfers paid	Total current transfers paid
1987	1	5.89		0.10	71.68	10.07	12.26	100
	5	30.50		0.02	56.63	6.45	6.40	100
	10	53.26		0.47	37.10	4.69	4.49	100
	Top 5%	55.81		0.69	34.69	4.52	4.28	100
	Top 1%	60.24		1.72	30.44	3.85	3.75	100
	Top 0.1%	63.47		3.65	26.19	3.27	3.42	100
	Total	40.37		0.15	48.05	5.72	5.71	100
1988	1	8.02		0.18	70.18	9.31	12.30	100
	5	32.84		0.01	54.78	6.01	6.35	100
	10	54.85		0.28	36.03	4.60	4.24	100
	Top 5%	57.54		0.38	33.77	4.35	3.95	100
	Top 1%	62.52		0.86	29.63	3.44	3.55	100
	Top 0.1%	66.15		2.03	25.85	2.74	3.23	100
	Total	42.18		0.10	46.78	5.47	5.47	100
1989	1	14.14		0.13	63.34	5.01	17.38	100
	5	32.85		0.01	55.48	0.74	10.92	100
	10	52.66		0.25	36.80	2.10	8.18	100
	Top 5%	54.55		0.34	34.49	2.83	7.78	100
	Top 1%	57.80		0.90	30.35	4.13	6.82	100
	Top 0.1%	56.87		2.49	25.14	9.62	5.88	100
	Total	41.68		0.10	46.90	1.28	10.03	100
1990	1	13.38		0.03	71.52	1.41	13.66	100
	5	31.17		0.04	57.10	0.97	10.72	100
	10	51.06		0.26	38.92	1.85	7.92	100
	Top 5%	53.16		0.35	36.49	2.32	7.69	100
	Top 1%	56.91		0.67	31.49	4.14	6.79	100
	Top 0.1%	60.03		0.97	27.22	5.23	6.55	100
	Total	40.06		0.10	49.15	1.12	9.57	100

Table 8A.7 Continued

Year	Decile	State earned income tax[1]	State capital income tax	Property tax	Municipal tax	Other taxes	Other current transfers paid	Total current transfers paid
1991	1	10.21		0.11	73.01	4.22	12.45	100
	5	28.44		0.02	59.24	1.05	11.26	100
	10	47.42		0.28	40.87	2.07	9.36	100
	Top 5%	49.79		0.41	38.55	2.48	8.77	100
	Top 1%	53.03		0.91	33.35	4.29	8.42	100
	Top 0.1%	54.02		1.83	28.90	7.46	7.79	100
	Total	36.43		0.11	51.39	1.55	10.52	100
1992	1	9.34		0.08	68.19	2.31	20.07	100
	5	25.77		0.01	55.21	1.19	17.83	100
	10	43.24		0.23	38.15	3.84	14.53	100
	Top 5%	45.26		0.30	35.69	4.71	14.03	100
	Top 1%	47.27		0.61	31.49	7.70	12.94	100
	Top 0.1%	49.23		1.87	26.40	11.33	11.17	100
	Total	33.33		0.09	48.02	2.18	16.38	100
1993	1	5.47	4.61	0.21	61.85	3.99	23.86	100
	5	20.62	1.64	0.03	54.79	1.48	21.43	100
	10	39.27	4.42	0.43	37.28	1.62	16.97	100
	Top 5%	41.29	5.76	0.64	34.66	1.87	15.78	100
	Top 1%	44.09	9.17	1.17	29.97	2.22	13.38	100
	Top 0.1%	39.44	23.36	2.44	20.55	5.26	8.95	100
	Total	29.10	2.43	0.15	47.31	1.47	19.53	100
1994	1	2.46	3.45	0.07	75.04	2.20	16.78	100
	5	19.19	1.52	0.00	54.04	1.07	24.17	100
	10	37.13	5.61	0.42	36.65	1.12	19.06	100
	Top 5%	38.66	7.47	0.63	34.05	1.27	17.92	100
	Top 1%	39.07	14.47	1.46	28.47	1.93	14.60	100
	Top 0.1%	31.35	36.41	3.67	18.33	0.63	9.61	100
	Total	27.17	2.91	0.18	46.69	1.11	21.94	100
1995	1	3.63	3.10	0.00	73.72	2.03	17.52	100
	5	19.97	1.55	0.00	53.72	0.98	23.77	100

Year								
	10	37.71	6.05	0.41	36.05	1.10	18.68	100
	Top 5%	39.53	7.90	0.63	33.31	1.21	17.42	100
	Top 1%	38.69	17.59	1.32	27.02	1.55	13.83	100
	Top 0.1%	33.94	35.16	1.19	21.18	1.20	7.32	100
	Total	28.18	3.12	0.18	45.94	1.03	21.54	100
1996	1	4.52	3.77	0.02	70.21	2.12	19.37	100
	5	22.14	1.89	0.10	53.49	0.99	21.39	100
	10	37.96	7.52	0.70	35.29	1.18	17.35	100
	Top 5%	38.84	10.35	1.07	32.43	1.38	15.93	100
	Top 1%	35.81	20.98	2.58	25.42	2.25	12.96	100
	Top 0.1%	26.92	30.76	4.23	17.88	2.38	17.83	100
	Total	29.26	3.66	0.24	45.70	1.04	20.10	100
1997	1	3.58	4.93	0.06	68.62	1.68	21.14	100
	5	20.42	2.22	0.01	54.47	0.85	22.03	100
	10	36.31	10.74	0.95	34.48	0.95	16.57	100
	Top 5%	36.85	14.26	1.42	31.30	1.14	15.03	100
	Top 1%	33.33	25.38	3.51	22.95	1.95	12.89	100
	Top 0.1%	21.99	38.78	7.63	12.49	2.14	16.98	100
	Total	28.22	5.05	0.31	45.55	0.83	20.04	100
1998	1	3.71	5.02	0.42	70.53	1.98	18.33	100
	5	20.86	3.14	0.02	53.67	0.92	21.39	100
	10	36.58	12.62	1.03	34.10	1.29	14.38	100
	Top 5%	36.75	16.88	1.48	30.63	1.54	12.71	100
	Top 1%	32.45	31.87	3.15	21.93	2.67	7.92	100
	Top 0.1%	8.57	71.62	6.91	6.35	4.58	1.96	100
	Total	28.71	6.02	0.36	45.30	1.04	18.57	100
1999	1	3.73	4.15	0.00	71.94	2.03	18.15	100
	5	21.80	2.74	0.02	53.42	1.12	20.89	100
	10	35.48	16.84	1.80	32.26	0.93	12.68	100
	Top 5%	35.26	22.42	2.62	28.25	0.94	10.50	100
	Top 1%	31.48	37.98	4.65	19.47	1.04	5.36	100
	Top 0.1%	22.76	53.13	9.10	12.44	0.66	1.91	100
	Total	28.60	7.62	0.62	44.44	0.99	17.73	100
2000	1	5.15	3.97	0.09	70.30	1.91	18.58	100
	5	21.86	3.10	0.04	54.19	1.28	19.52	100

Table 8A.7 Continued

Year	Decile	State earned income tax[1]	State capital income tax	Property tax	Municipal tax	Other taxes	Other current transfers paid	Total current transfers paid
	10	33.33	21.34	1.71	30.79	1.12	11.71	100
	Top 5%	31.96	28.15	2.47	26.42	1.21	9.79	100
	Top 1%	23.97	48.74	4.53	16.04	1.66	5.05	100
	Top 0.1%	14.89	68.18	6.80	8.26	0.30	1.57	100
	Total	28.43	9.15	0.62	43.94	1.15	16.72	100
2001	1	3.40	5.91	0.19	68.71	2.23	19.55	100
	5	19.64	2.76	0.02	57.05	1.36	19.18	100
	10	35.60	15.50	1.50	33.99	1.25	12.17	100
	Top 5%	35.54	20.62	2.16	29.82	1.42	10.44	100
	Top 1%	29.66	37.62	4.36	20.26	1.85	6.25	100
	Top 0.1%	18.95	56.90	9.34	10.61	2.00	2.21	100
	Total	27.94	7.11	0.54	46.73	1.20	16.48	100
2002	1	5.11	4.43	0.12	71.74	2.49	16.12	100
	5	20.60	2.40	0.00	57.47	1.22	18.31	100
	10	35.60	15.57	1.69	34.65	1.05	11.43	100
	Top 5%	36.03	20.34	2.45	30.49	1.09	9.61	100
	Top 1%	30.81	36.35	5.28	20.72	1.31	5.54	100
	Top 0.1%	24.29	48.17	9.90	13.54	1.99	2.11	100
	Total	27.94	7.19	0.59	47.61	1.15	15.52	100
2003	1	4.86	3.99	0.02	70.75	2.20	18.19	100
	5	19.34	2.46	0.01	59.02	1.36	17.80	100
	10	34.12	17.08	1.13	35.42	0.84	11.40	100
	Top 5%	33.95	22.60	1.64	31.36	0.86	9.60	100
	Top 1%	26.38	43.32	3.73	20.23	0.94	5.40	100
	Top 0.1%	10.91	72.16	8.18	6.70	0.62	1.43	100
	Total	27.01	7.69	0.39	48.36	1.07	15.47	100
2004	1	4.03	3.84	0.08	72.37	2.49	17.20	100
	5	20.37	2.56	0.03	57.39	1.22	18.43	100
	10	32.67	19.61	1.33	34.45	0.78	11.16	100
	Top 5%	31.76	26.21	1.94	29.90	0.78	9.42	100
	Top 1%	24.59	46.40	4.04	18.93	0.74	5.31	100
	Top 0.1%	6.79	79.77	7.14	4.83	0.39	1.09	100
	Total	26.71	8.74	0.48	47.42	1.11	15.54	100

[1] In 1987 1992 state income tax included earned and capital state income taxes.

Source: Based on IDS data in 1987–2004, Statistics Finland.

Table 8A.8 Income tax tables 1920 2003 in Finland

| Year | Table number | | Year | Table number | |
	Taxable income	Income subject to taxation		Taxable income	Income subject to taxation
1920	1		1970	2	2
1921	1		1971	2	2
1922	2		1972	2	2
1924	2		1973	2	2
1926	2		1974	1a	1a
1929	2		1975	2a	2a
1931	2		1976	2	2
1934	2		1977	2	2
1935	2		1978	2	2
1937	2		1979	2	2
1938	3		1980	2	2
1942	5		1981	2	2
1943	1		1982	2	2
1945	6		1983	2	2
1947	8		1984	2	2
1948	7		1985	2	2
1949	7	4	1986	2	2
1950	7	4	1987	2	2
1951	8	4	1988	2	2
1952	8	5	1989	2	2
1953	9	5	1990	2	2
1954	9	5	1991	2	2
1955	7	5	1992	2	2
1956	7	5	1993		2
1957	6	5	1994		2
1958	7	5	1995		2
1959	10	9	1996		2
1960	11	10	1997		2
1961	11	6	1998		2
1962	11	6	1999		2
1963	11	6	2000		2
1964	11	6	2001		2
1965	11	6	2002		2
1966	11	6	2003		2
1967	11	6			
1968	11	6			
1969	2	2			

Note: Table number in Statistics on Income and Wealth, Statistics Finland, various years.

Table 8A.9 Reference totals for tax units and income, Finland, 1920–2003

Year	Taxable income among population				Income subject to taxation			Cost of living deflator
	Income (millions of 2005 €)	Number of filers	Total number of tax units	Average income (2005 €)	Income (millions of 2005 €)	Number of persons	Average income (2005 €)	
1920	2,133	457,573	1,281,900	1,664	n.a.	n.a.	n.a.	34.700
1921	2,123	611,317	1,307,530	1,624	n.a.	n.a.	n.a.	27.700
1922	2,406	667,258	1,333,160	1,805	n.a.	n.a.	n.a.	28.500
1924	2,906	611,642	1,384,420	2,099	n.a.	n.a.	n.a.	27.800
1926	3,140	662,377	1,435,680	2,187	n.a.	n.a.	n.a.	27.500
1929	3,476	737,280	1,512,570	2,298	n.a.	n.a.	n.a.	26.500
1931	3,649	659,087	1,554,124	2,348	n.a.	n.a.	n.a.	31.300
1934	3,912	653,257	1,601,895	2,442	n.a.	n.a.	n.a.	33.100
1935	5,349	316,956	2,261,100	2,366	n.a.	n.a.	n.a.	32.600
1937	5,707	400,188	2,308,300	2,472	n.a.	n.a.	n.a.	30.900
1938	5,907	445,825	2,333,600	2,531	n.a.	n.a.	n.a.	30.300
1947	8,490	1,706,867	1,690,077	5,024	n.a.	n.a.	n.a.	5.100
1948	7,423	1,252,203	1,691,563	4,388	n.a.	n.a.	n.a.	3.800
1949	6,433	872,459	1,696,629	3,791	8,975	1,529,125	5,869	3.700
1950	7,773	1,049,776	1,710,890	4,544	10,441	1,599,226	6,529	3.300
1951	8,413	1,030,161	1,717,720	4,898	11,845	1,632,914	7,254	2.800
1952	8,878	946,598	1,729,563	5,133	12,434	1,864,122	6,670	2.700
1953	9,338	987,635	1,736,697	5,377	13,015	1,891,062	6,882	2.700
1954	9,568	817,207	1,747,789	5,474	11,231	1,570,773	7,150	2.700
1955	10,901	876,373	1,759,951	6,194	9,144	1,466,865	6,234	2.800
1956	11,058	802,410	1,770,494	6,246	9,396	1,429,402	6,573	2.500
1957	10,321	832,576	1,781,626	5,793	8,823	1,424,124	6,195	2.200
1958	8,898	657,271	1,796,106	4,954	10,212	1,647,124	6,200	2.000
1959	9,582	699,958	1,811,603	5,289	8,913	1,440,294	6,188	2.000
1960	10,245	790,633	1,822,171	5,623	9,541	1,565,509	6,095	1.900
1961	10,735	716,650	1,847,922	5,809	12,381	1,532,967	8,077	1.900

Year							
1962	11,685	719,112	1,848,726	6,320	19,124	2,354,331	8,123	1.800
1963	12,303	747,933	1,864,877	6,597	20,294	2,399,575	8,457	1.741
1964	13,323	892,932	1,878,167	7,093	21,322	2,455,545	8,683	1.578
1965	14,475	987,757	1,905,038	7,598	22,779	2,515,268	9,056	1.505
1966	15,501	1,063,558	1,942,928	7,978	23,845	2,566,390	9,291	1.448
1967	15,843	1,054,175	1,981,445	7,996	24,507	2,617,451	9,363	1.371
1968	16,896	1,136,701	2,016,533	8,379	25,084	2,615,772	9,589	1.265
1969	17,625	1,551,585	2,036,393	8,655	27,156	2,770,455	9,802	1.237
1970	18,721	1,706,556	3,058,616	6,121	29,496	2,813,166	10,485	1.204
1971	20,676	1,852,697	3,108,174	6,652	31,777	2,890,141	10,995	1.131
1972	23,024	1,988,830	3,161,741	7,282	34,547	2,982,367	11,584	1.055
1973	25,160	2,138,503	3,211,988	7,833	36,464	3,023,149	12,062	0.945
1974	27,567	2,663,651	3,256,775	8,465	39,037	3,169,707	12,316	0.805
1975	27,298	2,048,762	3,294,356	8,286	40,385	3,104,684	13,008	0.683
1976	27,640	2,085,688	3,325,633	8,311	41,030	3,242,340	12,654	0.597
1977	26,149	2,052,695	3,356,855	7,790	39,462	3,252,133	12,134	0.530
1978	25,349	1,946,956	3,382,625	7,494	39,276	3,283,942	11,960	0.493
1979	27,464	2,016,986	3,411,893	8,049	41,862	3,357,647	12,468	0.459
1980	28,866	2,133,840	3,442,417	8,385	43,771	3,465,224	12,632	0.412
1981	29,570	2,178,882	3,477,810	8,502	45,105	3,526,145	12,792	0.368
1982	31,146	2,258,600	3,515,342	8,860	46,887	3,609,405	12,990	0.336
1983	32,996	2,371,934	3,552,029	9,289	51,275	3,847,970	13,325	0.310
1984	34,946	2,464,297	3,585,923	9,745	53,622	3,895,592	13,765	0.290
1985	37,559	2,626,728	3,613,751	10,393	56,763	3,984,295	14,247	0.274
1986	39,539	2,669,382	3,641,495	10,858	59,399	4,025,487	14,756	0.264
1987	41,154	2,693,191	3,667,634	11,221	62,321	4,058,427	15,356	0.255
1988	44,073	2,788,405	3,690,224	11,943	65,461	4,094,258	15,989	0.243
1989	54,250	2,665,914	3,710,830	14,619	67,236	4,044,684	16,623	0.228
1990	56,916	2,763,826	3,730,892	15,255	70,866	4,135,418	17,136	0.215
1991	55,996	2,733,584	3,753,724	14,917	69,712	4,100,940	16,999	0.206
1992	54,867	2,719,873	3,769,627	14,555	67,491	4,056,780	16,637	0.201
1993	n.a.	n.a.	n.a.	n.a.	65,309	4,029,339	16,208	0.197
1994	n.a.	n.a.	n.a.	n.a.	66,289	4,088,945	16,212	0.195
1995	n.a.	n.a.	n.a.	n.a.	69,075	4,110,790	16,803	0.193

Table 8A.9 Continued

Year	Taxable income among population				Income subject to taxation			
	Income (millions of 2005 €)	Number of filers	Total number of tax units	Average income (2005 €)	Income (millions of 2005 €)	Number of persons	Average income (2005 €)	Cost of living deflator
1996	n.a.	n.a.	n.a.	n.a.	71,203	4,127,072	17,253	0.192
1997	n.a.	n.a.	n.a.	n.a.	73,887	4,152,349	17,794	0.189
1998	n.a.	n.a.	n.a.	n.a.	77,507	4,171,664	18,579	0.187
1999	n.a.	n.a.	n.a.	n.a.	82,248	4,208,467	19,544	1.100
2000	n.a.	n.a.	n.a.	n.a.	85,398	4,233,601	20,172	1.064
2001	n.a.	n.a.	n.a.	n.a.	85,091	4,253,151	20,007	1.035
2002	n.a.	n.a.	n.a.	n.a.	87,019	4,278,436	20,339	1.019
2003	n.a.	n.a.	n.a.	n.a.	89,609	4,296,696	20,855	1.010

Table 8A.10 Income sources in Finland, 1966 2004

Year	Income sources	Data	Sample Household	Sample Member	Population Household 1000	Population Member 1000	OECD equivalence scale	Cost of living index 1951 '100'
1966	Household Survey for 1966, Textvolume:1, Supplementary Tables:2, 1972	HES	3,259	13,048	1,383.8	4,625.0	2.40	185
1971	Household Survey 1971, Statistical Surveys, Nro 55, Volume II, 1977	HES	8,816	28,420	1,495.5	4,445.0	2.20	237
1976	Household Survey 1976, Statistical Surveys, Nro 62, Volume I, 1979	HES	7,971	23,327	1,635.7	4,535.8	2.09	449
1981	Household Survey 1981, Statistical Surveys, Nro 71, Volume I: 1 5, 1984	HES	7,368	22,792	1,919.4	4,727.3	1.90	729
1985	Household Survey 1985, Income and consumption, Quality descriptions, 1988	HES	8,200	26,804	2,045.2	4,833.3	1.85	980
1987	Income distribution statistics 1987, Income and consumption, 1989:5	IDS	11,863	34,122	2,082.3	4,884.3	1.83	1,052
1988	Income distribution statistics 1988, Income and consumption, 1990:4	IDS	12,192	34,297	2,102.3	4,872.1	1.81	1,104
1989	Income distribution statistics 1989, Income and consumption, 1992:4	IDS	11,971	32,800	2,149.2	4,931.6	1.80	1,177
1990	Income distribution statistics 1990, Income and consumption, 1992:15	IDS	11,445	31,471	2,170.6	4,974.4	1.79	1,248
1991	Income distribution statistics 1991, Income and consumption, 1993:8	IDS	11,749	32,412	2,200.2	5,000.2	1.78	1,300
1992	Income distribution statistics 1992, Income and consumption, 1994:7	IDS	10,417	28,763	2,218.0	5,021.8	1.77	1,333
1993	Income distribution statistics 1993, Income and consumption, 1995:10	IDS	9,176	25,354	2,243.1	5,015.1	1.76	1,361
1994	Income distribution statistics 1994, Income and consumption, 1996:10	IDS	8,964	24,774	2,270.0	5,035.0	1.75	1,376
1995	Income distribution statistics 1995, Income and consumption, 1997:12	IDS	9,262	25,229	2,290.1	5,053.1	1.74	1,390
1996	Income distribution statistics 1996, Income and consumption, 1998:14	IDS	9,349	25,358	2,310.0	5,063.4	1.73	1,398
1997	Income distribution statistics 1997, Income and consumption, 1999:15	IDS	10,010	26,902	2,326.0	5,076.5	1.73	1,415
1998	Income distribution statistics 1998, Income and consumption, 2000:15	IDS	9,345	25,010	2,355.0	5,086.1	1.71	1,435
1999	Income distribution statistics 1999, Income and consumption, 2001:11	IDS	9,590	25,646	2,365.1	5,096.7	1.71	1,452
2000	Income distribution statistics 2000, Income and consumption, 2002:14	IDS	10,423	27,841	2,373.0	5,096.7	1.71	1,501
2001	Income distribution statistics 2001, Income and consumption, 2003:13	IDS	10,736	28,303	2,381.5	5,120.0	1.71	1,539
2002	Income distribution statistics 2002, Income and consumption, 2004:14	IDS	10,843	28,201	2,397.5	5,131.8	1.71	1,563
2003	Income distribution statistics 2003, Income and consumption, 2005:11	IDS	11,200	29,070	2,405.0	5,145.2	1.71	1,577
2004	Income distribution statistics 2004, Income and consumption, 2006	IDS	11,229	29,112	2,415.0	5,160.8	1.70	1,580

Sources: The sources for the income data in Finland 1966–2004 are listed in Table 8A.10. The household based data are taken from the samples of the *Income Distribution Surveys* (IDS) 1987–2004 and of the *Household Expenditure Surveys* (HES) 1966, 1971, 1976, 1981, Statistics Finland.
The share of corporation and their shares of turnover in Figure 8.22 in Finland can be found in the *Corporate Enterprises and Personal Businesses in Finland* 1995, 2001 and 2006, Statistics Finland. The first one is published (1997) in Table 6, pp. 19–20, 1990–1995, the second one (2001) in Table 5, p. 19, 1994–2000 and the last one (2006) in Table 8, p. 20, 2001–2006.
The growth rates of real wages, profits, dividends and entrepreneurial income in Figure 8.21 are based on the *Finnish National Accounts 1974–2004* (2006) in Table 4.1 (Non-financial corporations, S111), Table 4.7 (National sectors total, S1) and Table 1.2 (Main aggregates, National income and disposable national income).

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