

Immervoll, Herwig

Working Paper

The distribution of average and marginal effective tax rates in European Union member states

EUROMOD Working Paper, No. EM2/02

Provided in Cooperation with:

Institute for Social and Economic Research (ISER), University of Essex

Suggested Citation: Immervoll, Herwig (2002) : The distribution of average and marginal effective tax rates in European Union member states, EUROMOD Working Paper, No. EM2/02, University of Essex, Institute for Social and Economic Research (ISER), Colchester

This Version is available at:

<https://hdl.handle.net/10419/68958>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

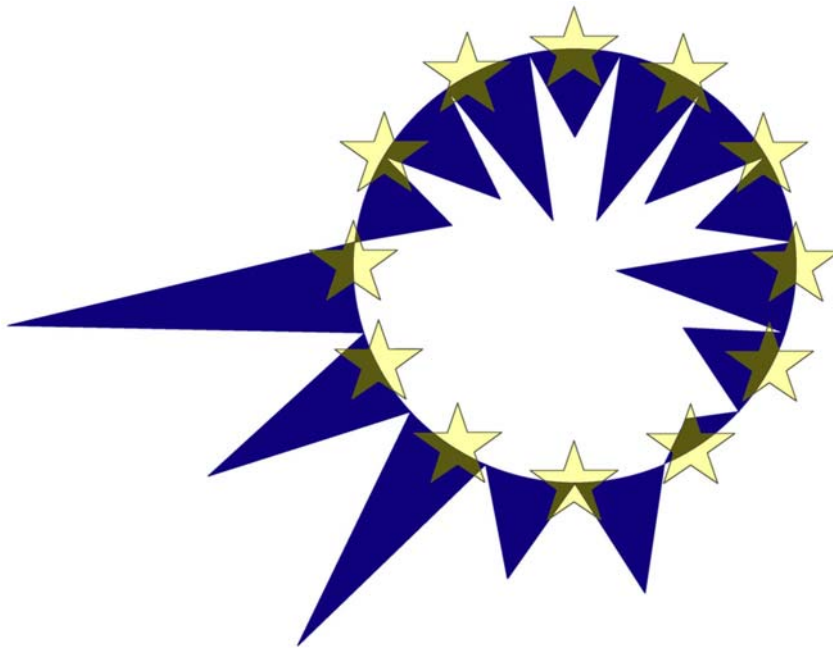
Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

EUROMOD

WORKING PAPER SERIES



EUROMOD Working Paper No. EM2/02

THE DISTRIBUTION OF AVERAGE AND MARGINAL EFFECTIVE TAX RATES IN EUROPEAN UNION MEMBER STATES

Herwig Immervoll

October 2002

The Distribution of Average and Marginal Effective Tax Rates in European Union Member States.

Herwig Immervoll¹

University of Cambridge;
European Centre for Social Welfare Policy and Research, Vienna

Abstract

Macro-based summary indicators of effective tax burdens cannot provide information on the level or distribution of the marginal effective tax rates thought to influence household behaviour. They also do not capture differences in effective tax rates facing different sub-groups of the population. I use EUROMOD, an EU-wide tax-benefit microsimulation model, to compute distributions of average and marginal effective tax rates across the household population in fourteen European Union Member States. Using different definitions of ‘net taxes’, the tax base and the unit of analysis I present a range of measures showing the contribution of the tax-benefit system to household incomes; average effective tax rates applicable to income from labour; and marginal effective tax rates faced by working men and women. In a second step, these measures are broken down to separately analyse the influence of each type of tax-benefit instrument. The results show that measures of effective tax rates vary considerably depending on incomes, labour market situations and family circumstances. Using single averages or macro-based indicators will therefore provide an inappropriate picture of tax burdens faced by large parts of the population.

Keywords: Effective Tax Rates; European Union; Microsimulation.

JEL Classification: H22; D31; C81

¹ This paper was written as part of the MICRESA project, financed by the *Improving Human Potential* programme of the European Commission (SERD-2001-00099). I acknowledge the contributions of all past and current members of the EUROMOD consortium to the construction of the EUROMOD model. The views expressed in this paper as well as any errors are my own responsibility. In particular, this applies to the interpretation of model results and any errors in its use. EUROMOD is continually being improved and updated. The results presented here represent work in progress.

EUROMOD relies on micro-data from 11 different sources for fifteen countries. These are the European Community Household Panel (ECHP) made available by Eurostat; the Austrian version of the ECHP made available by the Interdisciplinary Centre for Comparative Research in the Social Sciences; the Living in Ireland Survey made available by the Economic and Social Research Institute; the Panel Survey on Belgian Households (PSBH) made available by the University of Liège and the University of Antwerp; the Income Distribution Survey made available by Statistics Finland; the Enquête sur les Budgets Familiaux (EBF) made available by INSEE; the public use version of the German Socio Economic Panel Study (GSOEP) made available by the German Institute for Economic Research (DIW), Berlin; the Survey of Household Income and Wealth (SHIW95) made available by the Bank of Italy; the Socio-Economic Panel for Luxembourg (PSELL-2) made available by CEPS/INSTEAD; the Socio-Economic Panel Survey (SEP) made available by Statistics Netherlands through the mediation of the Netherlands Organisation for Scientific Research - Scientific Statistical Agency; and the Family Expenditure Survey (FES), made available by the UK Office for National Statistics (ONS) through the Data Archive. Material from the FES is Crown Copyright and is used by permission. Neither the ONS nor the Data Archive bear any responsibility for the analysis or interpretation of the data reported here. An equivalent disclaimer applies for all other data sources and their respective providers cited in this acknowledgement. I thank Tony Atkinson and Holly Sutherland for their helpful suggestions and comments. All errors and views expressed are my own responsibility.

1. Introduction

The analysis of most tax and transfer policy issues requires knowledge about how much is paid in taxes and received in benefits, by whom and in what circumstances. Moreover, in assessing existing tax-benefit policies and proposing reforms, it is useful to compare levels and structures of taxes and benefits across countries. The complexity of relevant rules governing tax liability and benefit entitlement and a lack of comprehensive and comparable data at the micro-level has led to major efforts being directed towards finding methods to construct simple summary indicators such as implicit effective tax rates based on revenue statistics and national accounts data (Carey and Tchilinguirian, 2000; Martinez-Mongay, 2000). Although these measures can provide important insights regarding aggregate payments they do not allow one to draw conclusions about marginal effective tax rates. While macro-based average effective tax rates would be good approximations of marginal effective tax rates if net taxes paid per income unit were the same across incomes and across individuals, neither is true for tax-benefit systems. In other words, aggregate calculations do not give correct measures of the marginal tax rate because they do not consider the institutional rules as they apply to each taxpayer and benefit recipient. Obviously, macro-based figures also cannot answer questions about the detailed distribution of tax payments across the population.² This paper aims to fill these gaps by providing detailed measures of both average and marginal effective tax rates facing households in Europe. It uses an EU-wide microsimulation model (EUROMOD) to produce distributions and decompositions of these measures across households in fourteen Member States of the European Union (EU).

Effective tax rates capture the net tax burden resulting from the interaction of different types of taxes and contributions on one hand and benefit payments on the other. Average effective tax rates (AETRs) express the resulting net payments as a fraction of the income on which they are levied. They are therefore useful in assessing the size of transfers to and from the government *given* the incomes and circumstances observed at a given point in time. Marginal effective tax rates (METRs), on the other hand, measure the degree to which any *additional* income would be ‘taxed away’. METRs are therefore useful measures for evaluating the financial incentives to engage in activities meant to generate or increase income.

The accurate measurement of AETRs and METRs is important for a range of policy related questions which continue to receive attention in both academic and policy circles. Measures of effective tax rates have, for instance, been used as explanatory variables in studies concerning the influence of tax burdens on economic growth (Agell, *et al.*, 1997; 1999), unemployment (Daveri and Tabellini, 2000; Martinez-Mongay and Fernández-Bayón, 2001) and wage setting behaviour (Sorensen, 1997). Clearly, many of the processes underlying these issues are strictly linked to the behaviour of individuals or households. In comparing and evaluating different tax-benefit systems one would therefore want to characterise them not only in terms of the effective tax burden of a single average (‘representative’) agent³ but also in terms of the number and types of households and individuals who are, in fact, facing effective tax rates of the various magnitudes. In fact, from a distributional point of view,

² Throughout the paper, I use the terms tax and benefit *payments* to refer to the actual amounts paid in tax or received as benefits, i.e., the formal incidence. How this relates to the final (‘economic’) incidence is discussed in section 3.

³ This is, in effect, what effective tax rate measures based on macro-data do.

detailed knowledge about the incidence of tax and benefit payments is of interest in itself (e.g., Mercader-Prats, 1997).

Although comparable and detailed household micro-data have become more readily available in recent years, the information contained in these data sources is nevertheless insufficient for calculating detailed AETRs and METRs. One reason is simply that variables on income tax (IT) or social insurance contributions (SIC) are often missing. Even if they are recorded, social insurance contributions paid by employers (or benefit paying institutions) on behalf of employees (or benefit recipients) will usually not be available (as shown below, employers' contributions represent an important part of the tax burden borne by labour incomes). To overcome this problem simulation methods are frequently used to impute such missing information (Immervoll and O'Donoghue, 2001a; Weinberg, 1999). This basically entails combining the information on people's status and incomes with a detailed representation of tax-benefit rules and provides all necessary information for computing AETRs. Importantly, the combination of micro-data with a model of tax and benefit rules in microsimulation models can be used to compute METRs which are not observed in the standard survey. By varying each observation's incomes by a certain amount and then re-computing tax liabilities and benefit entitlements, the effective tax burden on any additional income can be captured. Finally, the parameterisation of tax-benefit rules built into microsimulation models permits effective tax rates to be computed under a range of different policy configurations. In the EU, such 'forward-looking' analyses of the likely impact of policy reforms on effective tax burdens are particularly relevant given the identification of 'high' or 'excessive' levels of taxation as a major policy concern.⁴

The plan for this paper is as follows. Section 2 provides a rationale for evaluating effective tax rates at the micro-level and compares approaches using empirical micro-data to macro-based techniques as well as methods based on 'synthetic' households. Section 3 discusses the choices to be made in measuring effective tax rates and explains the precise approach adopted in the present study. The following sections present simulation results for fourteen countries. While section 4 provides household-level AETRs across *all* households taking into account all relevant taxes and benefits, section 5 focuses on the effective taxation of labour incomes. It presents individual-level estimates of the total tax 'wedge' resulting from the combination of IT and SIC. Section 6 evaluates relevant financial incentives for the working population by computing METRs. All results are presented in terms of their overall distribution of effective tax rates across the relevant populations as well as grouping by age, gender and other household characteristics. In discussing policy reforms targeted towards altering effective tax rates it is essential to understand which particular tax-benefit instruments are responsible for observed tax burdens. The distributions of METRs and AETRs are therefore decomposed in order to show the contributions of individual tax-benefit instruments. Section 7 concludes.

2. Measuring effective tax rates – why look at the micro-level?

International comparisons of tax systems have long relied on information about formal tax rules (such as the rate structure) or they have summarised their aggregate impact by relating

⁴ In 2000 the European Council has, for instance, committed the European Commission to assess "whether adequate measures are being taken in order to [...] alleviate the tax pressure on labour [...]" (Martinez-Mongay (2000), p. 6). Carone and Salomäki (2001) supply a recent contribution towards such an assessment.

total receipts to national income (these indicators are sometimes called ‘tax ratios’). One main shortcoming of this latter approach is that it disregards the tax base a tax is levied on. A ‘tax ratio’ for a certain type of income tax of $x\%$ may be the result of a combination of (a) a broad tax base and a low tax rate; or (b) a narrow tax base and a high tax rate. The economic consequences are, obviously, very different. To rectify this problem, there has, starting in the 1990s, been a growing interest in methods seeking to derive measures of effective tax rates based on Revenue Statistics and National Accounts (Lucas, 1990, Mendoza, *et al.*, 1994). By relating tax receipts to the relevant tax bases they provide a much better indicator of tax burdens. They are also attractive in that deriving comparable figures across countries is facilitated by the availability of internationally comparable sources of revenue statistics, such as those produced by the OECD, and standardised national accounts data.

Obviously, macro-based measures cannot be used to investigate the micro-level incidence of tax payments. There are, however, other potential problems. One is related to the institutional characteristics in terms of how taxes and benefits are integrated in different countries and the fact that macro-based effective tax rates tend to focus on taxes and SIC while disregarding benefits. Child related payments may, for instance, be formally administered through the tax system in some countries (e.g., by means of refundable tax credits) and be paid as benefits in others. Clearly, excluding benefit payments in such cases means that the comparability of effective tax rates across countries will suffer. While, in principle, applying appropriate corrections would be straightforward, data on social transfers tends to be less comparable across countries than revenue statistics and incorporating them in multi-country studies can therefore be problematic.

Technical difficulties also arise due to conceptual differences between revenue statistics and national accounts data. The former are, for instance, collected on a cash basis while the latter measure incomes as they accrue. As a result the timing of the two data sources diverges (Jacobs and Spengel, 1999). Several other issues are also related to differences in definitions and scope between the two data sources and a number of assumptions are required to align them (Carey and Tchilinguirian, 2000). This range of potential problems has prompted a number of ‘health warnings’ being issued in order to make users of macro-based effective tax rates aware of their shortcomings (OECD, 2000b; c). The Working Party No. 2 on Tax Policy Analysis and Tax Statistics of the OECD Committee on Fiscal Affairs takes the view that “AETR results relying on aggregate tax and national accounts data are potentially highly misleading indicators of relative tax burdens and tax trends” and that “further work relying on micro-data is required to assess the magnitude of potential biases to average tax rate figures derived from aggregate data.”⁵

In fact, there is an existing literature documenting various approaches of combining information on statutory tax rules and tax returns with data on income distribution and household surveys (Barro and Sahasakul, 1986; Easterly and Rebelo, 1993). Among researchers interested in the macroeconomic effects of taxation, however, these attempts have been met with some scepticism (although some authors have in fact used them as yardsticks for validating macro-based results) as it is considered doubtful whether “marginal tax rates that apply to particular individuals in a household survey, or a specific aggregation of

⁵ cited from Carey and Tchilinguirian (2000), p. 5.

incomes based on tax-bracket weights, are equivalent to the aggregate tax rates that affect macroeconomic variables as measured in national accounts.”⁶ This limitation certainly holds for tax rate calculations based on ‘typical’ households (such as OECD, 2000a) as such estimates, while illustrative, fail to take into account the heterogeneity of the population. Although extending these calculations to a wider range of ‘synthetic’ households can serve to improve our understanding of the mechanics built into tax-benefit systems the point remains that any calculations based on synthetic households cannot capture, in the correct proportions, the tax and benefit payments across the entire range of household types found in the population as a whole (Immervoll, *et al.*, 2001). In contrast, calculations based on representative household micro-data can be used to derive aggregate measures of effective tax rates using any desired aggregation rule. At the same time, they are more informative than aggregate measures since they capture the distribution of effective tax rates across the population.

As they are calculated based on statutory tax and benefit rules they are also particularly useful where a detailed knowledge of the structure and mechanics built into tax-benefit systems is important. There are two main cases where computing measures based on *observed* past tax receipts and tax bases (sometimes referred to as ‘backward-looking’ in the literature) cannot be used. First, measuring METRs requires assessing what would happen to tax burdens if incomes were to change. As tax-benefit systems are generally far from proportional, aggregate income changes are meaningless in this context. Instead, it is important whose income is changing. In a non-proportional tax-benefit system, METRs can therefore only be computed based on a knowledge of the distributions of incomes and other characteristics that determine tax liabilities and benefit entitlements. This problem is usually acknowledged in studies using macro-based measures of effective tax rates. However, since many of the distortionary effects of taxation that researchers are interested in are related to marginal rather than average tax rates, there is a worrying tendency to equate METRs with AETRs and use the latter as proxies for the former (see Mendoza, *et al.*, 1994 for an example and Padovano and Galli, 2001 for a critique).

A second area where ‘forward-looking’ methods of computing effective tax rates are particularly useful is in the analysis of policy reforms. There is often a need to evaluate reforms before detailed macro-economic data become available. Since the delays can be sizable simulation techniques can play an important role in an early evaluation of policy reforms.⁷ By changing the parameters of the tax-benefit rules built into such simulation models, they can also be used to perform analyses of reforms that have not yet been implemented or are purely hypothetical.

3. Whose taxes, which incomes, what margins?

Several choices have to be made when measuring effective tax rates. Most of them have important implications for the interpretation of the results and thus require some consideration. In fact, depending on the research questions it will often be desirable to compute effective tax rates in several different ways. A method which allows some flexibility is therefore valuable.

⁶ Mendoza, *et al.* (1994), p. 298

⁷ Martinez-Mongay (2000) notes that there is generally a 2-3 year lag in the production of macro-based tax rates.

Before discussing the various decisions to be made and how microsimulation methods can be used to accommodate them it is useful to clarify the scope of the measurement exercise. AETRs measure some concept of total tax as a fraction of some concept of tax base. Obviously, the incidence of AETRs is therefore connected with the incidence of taxes. In studying questions of incidence one can be interested in the payments *per se*, or in the economic loss suffered by the taxpayer. For a particular taxpayer, this loss will, for two reasons, generally differ from the tax paid. First, taxes may, through influences on supply and demand at the market level, influence the prices of the goods and services produced or consumed by the taxpayer. Second, the taxpayer herself may, in response to price changes, adjust the basket of goods and services she produces or consumes and suffer welfare losses in the process. The familiar process of tax ‘shifting’ is of great interest to economists and any results on final incidence may be very sensitive to the degree of shifting.⁸

Moreover, there are many economic consequences of taxation that cannot be captured by looking at the amounts of taxes alone. To take an extreme example, a tax that, at a given point in time, generates no revenue at all may be detrimental to economic growth if it has made a certain type of productive activity so financially unattractive as to drive people away from engaging in it altogether. Nevertheless, it is difficult to deny that tax payments are an issue of public interest in themselves and therefore deserve investigation. The central issue then is to “distinguish clearly between tax payments and losses from taxation, and to recognise that the first is an accounting characteristic of a particular equilibrium, while the second requires the evaluation of a comparison between two alternative equilibria.”⁹

In this paper, effective tax rates are computed for a given ‘equilibrium’ as characterised by the information recorded in household micro-data of a particular year. While the resulting AETRs will, for the reasons stated above, not capture total losses associated with the imposition of taxes, any substitution effects caused by them do enter the results: If we assume that we are, in fact, looking at an equilibrium then people will already have adjusted their activities in response to the tax burdens imposed on them.¹⁰ The aim of computing AETRs is to understand the extent and incidence of burdens resulting from tax payments and, to avoid confusion, there should be no claim that the incidence of AETRs can be used as some sort of approximation of the incidence of economic losses (relative to the tax base). Instead, tax payments are one component of incidence analyses and should be treated as such.¹¹ For METRs, on the other hand, no qualifications regarding any decisions about the appropriate

⁸ Indeed, imperfect competition may lead to over-shifting in the sense that the loss suffered by a taxpayer can be less than 0% or more than 100% of the amount of tax paid. See, for instance, Stern (1987).

⁹ Dilnot, *et al.* (1990), p. 213.

¹⁰ It should be emphasised that this implies an important qualification of studies looking at effects of policy reforms on the incidence of effective tax rates. If taxes and benefits are computed for a given (pre-reform) population then, conceptually, the assumption of an equilibrium will not be appropriate. To what extent taking into account behavioural responses following the reform would, in fact, noticeably change results is another matter. The usefulness of incorporating behavioural response in microsimulation-based policy evaluations will depend on the precise type and intent of the reform and on the extent to which underlying micro-data permit changes to be detected in a statistically meaningful way. For a discussion of some of these and related issues see Pudney and Sutherland (1994) and Creedy and Duncan (2002).

¹¹ Dilnot, *et al.* (1990) show how tax payments, income effects due to price changes and welfare loss as a result of substitution processes can be brought together in one unified framework.

treatment of tax shifting are required at all. The main reason why we are interested in METRs in the first place is their possible effect on behaviour or, in other words, their role in moving from ‘equilibrium 1’ to ‘equilibrium 2’. Clearly, METRs must therefore be evaluated under ‘equilibrium 1’.

While some of the methodological issues to be considered for effective tax rate measurement at the micro-level are similar or can at least be related to those facing researchers concerned with deriving macro-based measures, others only become apparent due to the level of detail which micro-based approaches support. Even though these issues exist, in principle, regardless of the level of aggregation, the data sources used for macro-based measures simply do not provide the same range choices. The relevant dimensions are (1) the types of taxes and benefits to take into account and the income (or ‘tax base’) to relate them to and (2) the unit of analysis and, related to it, the sharing of any incomes within the unit. In the case of METRs an additional issues is (3) the nature and size of the margin to be used for computing marginal effects. Each of these will be discussed in turn.

3.1 Tax-benefit instruments and definition of income base

Although effective tax rates are supposed to provide broad measures of net tax payments, the choice of instruments to be incorporated in such a measure is not self-evident. Most studies consider taxes and ‘tax-like’ payments. However, it is not at all clear that SIC are, for example, equivalent to income taxes and it is undoubtedly the case that the degree of equivalence differs widely across countries. While, in principle, SIC are payments made in return for insurance coverage the link between income taxes and public services is not as direct. However, cross subsidies between the various ‘pots’ of public finances often make such a distinction less meaningful. In addition, social insurance schemes are, for the most part, compulsory and not characterised by a strict actuarial link between the value of insurance services and SIC paid. The discrepancy can be seen as performing functions (such as redistribution or raising revenues) normally associated with income tax.

Section 2 has already hinted at comparability problems that can arise due to international differences in the structure of tax-benefit systems when the benefit side is ignored. As the distinction between tax concessions and benefits can be more or less arbitrary, tax-benefit models which allow an integrated view on the tax-benefit system as a whole are useful in this respect. There are, however, limitations nonetheless as these models usually focus on cash instruments. As a result, there are inherent difficulties in comparing effective tax rates of countries where, say, child care payments or housing benefits are paid an cash and those where these benefits are provided ‘in-kind’ through access to subsidised child-care or housing. A related question is that about the appropriate time-horizon of the calculations. Should some measure of future benefits financed by current SIC be taken into account?¹²

Many of these issues become somewhat clearer once one considers the appropriate definition of income which is to enter the denominator of the AETR calculations (the tax base). If the purpose of studying the incidence of AETRs is assessing the distribution of the relative

¹² The question here concerns pensions in particular, i.e., the distant future. There is less of an issue with means-tested benefits which are, depending on current income, revised at the end of the current reference period (the ‘near’ future). These should, as far as possible, be taken into account when computing METRs.

contribution of tax-benefit systems to current cash incomes (as in section 4) then any in-kind transfers as well as future incomes such as pension rights will be disregarded.¹³ Similarly, if the focus is on evaluating the total tax burden on labour (as in section 5) then any taxes or benefits which are not strictly related to labour income (such as taxes on investment income, family benefits¹⁴) should be disregarded.

3.2 *Unit of analysis and sharing within units*

A natural question to ask is whose effective tax rates we are interested in. Depending on the purpose, we may want to look at tax/benefit payments at the individual level, the level of the formal tax unit or some other notion of family or household. For distributional studies concerned with household welfare the household level will be appropriate (Canberra Group, 2001). In measuring the tax wedge on labour, however, one would want to relate the relevant taxes directly to the labour incomes of those supplying labour (and hence chose the individual as the unit of analysis).

Given that one distinguishing feature of households is the sharing of common resources (and given that we do not observe the precise sharing arrangements within households) studying units of analysis smaller than the household can be problematic. A particular issue arises due to the assessment unit built into statutory tax and benefit rules. These can be quite different for different instruments in a given country (e.g., individual SIC but joint IT) and, obviously, for equivalent instruments across countries. Although recent decades have, at least in the EU, seen a trend towards individual taxation, joint tax filing is current practice in a considerable number of countries (O'Donoghue and Sutherland, 1999). In addition, even if the tax schedule itself is applied to each individual separately, tax concessions such as tax free allowances or tax credits are often transferable between family members and therefore represent a 'joint' element. Notions of family or household are even more important in determining the eligibility for benefits and applicable amounts. With the important exception of insurance based benefits practically no type of benefit is targeted directly towards individual persons. Instead, the structure of families or households as well as their members' characteristics and incomes are crucial determinants of benefit payments. Even insurance based benefits formally paid to the insured person often take into account family circumstances (e.g., minimum or basic pensions, unemployment benefits).

Whenever taxes or benefits are explicitly or implicitly targeted towards more than one person, the question how these payments are shared between members of an assessment unit is crucial if the unit of analysis is smaller than the unit of assessment. Should benefits be shared equally among all members of the household, or just among adults, or should payments be assigned according to some equivalence scale? Similarly, what is the best basis for sharing jointly paid income taxes? Should it be in proportion to the tax base or should those with higher income

¹³ There would still be an issue of what 'current' means. Normally, income distribution studies take the year as their reference period (Canberra Group (2001)). In the context of effective tax rate calculations based on micro-data, this means that annual income data would be ideal. Some data sources, however, measure income over a shorter period (see appendix 1). Although these data can, of course, be annualised, time-period differences in the original data need to be borne in mind in comparative studies as income changes during the year will, for a particular household, imply that annual income is not equal to one particular month's income times 12.

¹⁴ As illustrated by the 'tax concessions versus benefits' example in section 2, the treatment of benefits is not always straightforward. If family related tax concessions in country *A* are allowed to reduce effective tax rates then, for symmetry reasons, the same may need to hold for family benefits in country *B*.

pay progressively more? Inevitably, these decisions are, to some degree, arbitrary. The value of calculations based on micro-data lies in raising the issue in the first place and forcing analysts to be explicit about the decisions they adopt.

3.3 *Nature and size of margin used for computing METRs*

Additional issues arise in computing the effective tax burden on marginal income changes. They relate to the exact features of the change. While marginal tax rates could in principle be found analytically by taking first differences of the relevant effective tax schedule this is not possible in practice as tax-benefit systems are characterised by discontinuities. The straightforward approach then is to derive METRs numerically simply by altering income, using a tax-benefit model to re-compute relevant taxes and benefits and comparing the results with the original situation:

$$METR = 1 - ((y_1 + d)(1 - t_2) - y_1(1 - t_1)) / d \quad (1)$$

where y_1 is the original pre-tax-benefit income, d is the margin and t_1 and t_2 are the AETRs applying, respectively, to y_1 and y_1+d . $y_1(1-t_1)$ and $(y_1+d)(1-t_2)$ are, therefore, the incomes after taxes and benefits (before and after the income change). Similar to sections 3.1 and 3.2 above, relevant decisions concern the definition of y_1 , the tax-benefit instruments to be taken into account in computing t_1 and t_2 , as well as the unit of analysis used for measuring incomes. In addition, the size (and direction) of d is important and leads to different interpretations of resulting METRs. In establishing work incentives, one will often be interested in a small income change, such as a small fixed percentage rise in earnings or the rise in gross earnings due to an additional hour of work. However, the margin can also be earnings as a whole. $1-METR$ is then equivalent to the concept of a replacement rate (of moving from in-work to out-of work in the case of $d = -\text{earnings}$ and out-of-work to in-work in the case of $d = \text{potential earnings}$). For such ‘large’ margins, however, it is often not sufficient to only change income before re-computing taxes and benefits. In addition, several other characteristics which are available in the micro-data and which, in addition to income, are potential determinants of taxes and benefits (variables such as hours of work, employment status, economic sector) will have to be altered as well (see Immervoll and O’Donoghue, 2001c).

If one is concerned with financial incentives then the appropriate choice of a unit is particularly important. If a person’s additional earnings reduce the household’s entitlement to housing benefits then this is likely to be a consideration she will take into account. Similarly, an important consequence of joint taxation of married couples is that, from the couple’s point of view, the lower earning spouse faces, for a lower level of earnings, the same marginal tax rate as his/her higher earning partner. Clearly, to bring out these facts, METRs would need to be computed for the relevant unit as a whole. For multi-person units, however, another decision to be made is who to attribute d to. Since for the unit as a whole, METRs will be different depending on *who* earns the additional amount, it will often be appropriate to evaluate different scenarios. For example, in order to separately analyse financial work incentives for men and women one may analyse METRs evaluated for the household as a whole under the alternative assumptions that female / male members of household increase their earnings (see section 6).

4. The contribution of tax-benefit systems to households' current disposable incomes

Average effective tax rates can provide a convenient description of the degree to which household incomes are affected by taxes and benefits. The household perspective allows one to put aside issues related to the unit of analysis as discussed in section 3.2. The concern with current incomes also makes redundant any questions about the degree to which current taxes or SICs can be seen as savings financing future benefits. But an important consideration that remains is which components of current income should be counted in the numerator and denominator of the AETR. For most components such as earnings, taxes, SIC, family benefits, etc., the decision is straightforward. It is less clear-cut, however, for incomes which are partly insurance based but are also characterised by some elements of outright transfers to the recipient household. In cross-country studies, the issue is complicated by the fact that, for similar policy instruments, the “mix” between insurance and transfers varies widely across countries. This is particularly the case for pensions and unemployment benefits.

For the purpose of this section, I consider all replacement incomes, such as old-age pensions and unemployment benefits, whether contributory or not, part of the tax base (i.e., pre-tax-benefit income denominator of the AETR) and not as benefits that reduce the net taxes paid by households. The AETRs for recipients of these incomes therefore do not reflect the generosity of these instruments but the extent to which they are subject to (net) tax payments. Other replacement incomes which enter the tax base include maternity benefits, sickness benefits, disability insurance and survivor/orphan benefits. SIC paid by the employer are not part of pre-tax-benefit income. The numerator of the AETR consists of all taxes paid by the household plus compulsory own SIC minus family benefits, care benefits, social assistance/minimum income benefits and all other ‘non-replacement’ cash transfers such as housing benefits.

For each household, the relevant income components are either taken directly from the micro-data (earnings, pensions, etc.) or simulated using EUROMOD, an EU-wide tax-benefit model. The sources of micro-data used in this exercise are listed in appendix 1. The same micro-data are also used by EUROMOD as the basis for simulating income taxes, SIC as well as means-tested and universal benefit payments.¹⁵ A simulation of these income components is necessary in cases where they are not recorded in the micro-data. In addition, simulation is required in order to compute changes in taxes and transfers following marginal income changes (section 6). EUROMOD is an integrated microsimulation model of the tax-benefit systems of all fifteen EU Member States. It permits common definitions of income concepts, units of analysis, sharing ‘rules’, etc. to be used across countries and therefore is a suitable instrument for computing effective tax rates in a comparable or, at least, reconcilable way.¹⁶ The tax and benefit rules underlying all calculations in this paper are those for 1998.

¹⁵ In this paper, simulated tax and benefit amounts are computed under the assumption of no tax evasion and 100% benefit take-up.

¹⁶ Details on EUROMOD and the simulated tax-benefit instruments can be found in Immervoll, *et al.* (1999), Sutherland (2001b) and Immervoll and O'Donoghue (2001b).

Table 1 shows the distribution of household AETRs for fourteen countries along with the number of observations for each AETR band (modal values are shown in **bold** typeface). Large difference between median and mean in some countries are a first indication of the spread of AETRs across the population. While the amount of taxes and own SIC paid in the country as a whole is, relative to pre-tax-benefit income, similar in Ireland and the UK, the median is very different: half of Irish households pay less than 6% in net taxes with just under 20% having their incomes entirely unaffected by the tax-benefit system. The mean average effective tax burden on pre-tax-benefit income including replacement incomes is highest in Denmark and, at about a third of the Danish level, lowest in the UK, Ireland and Spain.

Taking a closer look at the distribution we see that a considerable number of households are net benefit recipients with between 8% in Denmark and 30% in the UK having negative AETRs. For this group, non-replacement incomes exceed pre-tax benefit incomes. The fact that Denmark and the UK are the two extremes in this respect is instructive as one would *a priori* expect Denmark to have a more generous social transfer system. In interpreting these results it is important to keep in mind that AETRs depend on both net-taxes and pre-tax-benefit incomes. If in a given country, there are more households where all household members are benefit recipients, we will therefore see a larger number of negative AETRs even if the benefits are less generous. Equally important, counting replacement incomes as pre-tax-benefit incomes will tend to push AETRs upwards for those countries with generous unemployment benefits and/or pensions: If people are entitled to these payments they will obviously be less likely to fall back on ‘last-resort’ benefits such as social assistance or other means tested transfers.

Given the dissimilar distributions it is interesting to analyse which household characteristics are related to the level of AETRs. The *interaction* of the various characteristics of interest could be captured using regression techniques. I defer this approach to future work and instead show as a first step tables focussing on one characteristic at a time. Table 2 shows how the distributions differ for different income groups.¹⁷ While in the UK the tax burden borne by the top quintile is one of the lowest, this country also has the most ‘progressive’ system in that the average AETR in the top quintile is more than 100 percentage points higher than that for the bottom 20%. This does, of course, not mean that the mechanisms built into the tax-benefit system are in themselves necessarily more ‘progressive’ than in other countries. An important factor behind these numbers is the distribution of pre-tax-benefit incomes: More unequal distributions will, for a given structure of tax-benefit system, also result in larger disparities between effective tax burdens. In particular, if low-income groups draw a very large part of their income from social transfers (UK, Finland, Greece) then AETRs can be highly negative, leading to large percentage point differences when compared to AETRs of higher income groups.¹⁸

One main factor determining pre-tax-benefit incomes is the labour market status of household members. Table 3 considers two of the relevant groups; those economically “active”

¹⁷ In computing quintile points, differences in household size and composition have been corrected for using the ‘modified OECD’ equivalence scale. In dividing the population into five equally sized groups, households have been weighted by their size.

¹⁸ It is instructive that, in the UK, the difference in means between the top quintile group and the first quintile with non-negative mean AETRs (quintile group 3) is one of the lowest among the fourteen countries.

(employed or self-employed) and the retired. Since AETRs are computed here on a household basis the status refers to that of the head of household.¹⁹ For the groups as a whole, net taxes relative to pre-tax-benefit incomes are at least twice as high for the ‘active’ group in nine out of fourteen countries. In Ireland and Portugal the majority of households headed by a retired person do in fact face zero AETRs and are, thus, outside the scope of the tax-benefit system. While this is not the case in the UK, the mean AETR for retired people is negative indicating a large number of retired people with low pensions who are dependent on minimum income and other means-tested benefits. A large number of negative AETRs is also found among the retired group in Finland. Turning to the ‘active’ group the largest incidence of high AETRs is found in Denmark, Germany, the Netherlands and Belgium where, respectively, more than 89%, 49%, 41% and 40% of ‘active’ households are faced with AETRs in excess of 30%. The relevant proportion in the UK (2.5%) is the lowest of all fourteen countries followed by Spain with just under 4%.

Table 4 shows separate distributions for different age groups (referring, again, to the head of household) and confirms the picture of clearly lower AETRs applying to those drawing their main income from old-age pensions. One can again see a large number of zero AETRs among the ‘>65’ households in Ireland and Portugal and also Spain. Along the age profile, AETRs in all countries follow an inverted ‘U’ shape which is particularly pronounced in Finland, Germany, Greece and the UK. The largest number of net benefit recipients among households headed by young (<25) people can be found in the Netherlands followed by the UK, Finland and Germany. A final breakdown of household AETRs is provided in table 5 where distributions are presented for a range of family structures. Single parent households are subject to lower effective tax rates than the overall population in all countries. With negative medians, they are mainly net benefit recipients in seven out of fourteen countries (Belgium, France, Germany, Ireland, Luxembourg, the Netherlands and, most clearly, the UK). Again, this may be due to generous benefits being available to them (such as in Belgium²⁰) or to a lack of earning opportunities forcing them to rely on social transfers (whatever their level) or a combination of the two. Upon first inspection it may be surprising that households without children face lower AETRs than those with children in some countries (Greece, Italy, Portugal and Spain, in particular). This is to a large extent due to retired people being part of the ‘no children’ group. Once they are excluded (column ‘No Children; Head not retired’) households with children face lower AETRs than those without in all countries but Spain where a small difference in favour of childless households remains.

How important are individual tax-benefit instruments in determining effective tax burdens? To answer this question, the various levels of AETRs in all countries have been decomposed in terms of the instruments that drive them. The results are shown in figure 1 where the contribution of each instrument to the total net taxes is shown for the different AETR bands.²¹ The bars all have the same total height (100%) so that a similar sized ‘tax’ section in AETR bands ‘40 to 45’ and ‘20 to 25’ would, for instance, indicate an average amount of income tax

¹⁹ The ‘head of household’ is defined as the person with the highest earnings; if there is more than one person with the same (or zero) earnings, the oldest among them is taken to be the ‘head’.

²⁰ See Immervoll, *et al.* (2001).

²¹ ‘Other Benefits’ are care benefits, educational grants and other transfers that do not fit into any of the other three benefit categories. As before, replacement incomes such as pensions or unemployment benefits are not counted as ‘benefits’ here but included in the ‘tax base’.

in the former band being, in absolute terms, about twice as large as that in the latter band. Negative components (benefits) are those which reduce net taxes in each AETR band. Note that bars have been omitted for AETR bands with fewer than 10 observations. Except for that, however, the graphs say nothing about the incidence of the various AETR levels so that it is important to read them in conjunction with table 1. In addition to the contribution of individual tax-benefit instruments figure 1 graphs, for each AETR band, average per-capita ‘tax-bases’ (i.e., pre-tax-benefit income including replacement incomes) relative to the population median.²²

As expected, higher tax-bases are generally subject to higher AETRs. As in table 2, however, the degree of progressivity varies across countries. Notably, we see that in four of the countries (Belgium, Greece, Italy, Spain) the highest AETRs are not paid by those with the highest ‘tax-base’. This is frequently due to upper contribution limits above which no (additional) SIC are due. However, taxes other than income tax (wealth and property tax) also play a role as these may lead to high total tax burdens relative to income. The balance between taxes and SIC as revenue generating instruments differs widely. In Denmark, Finland and the UK taxes represent, throughout the AETR spectrum, more than 75% of total household payments to the government. At the other extreme, own SIC paid by Austrians markedly exceed taxes in most AETR bands. On the benefit side, we see family benefits being a particularly important contributor to net benefit receipts of low-income households in Luxembourg, Spain, Italy and Belgium. The dependence of low-income households on minimum income benefits is strongest in Greece and Ireland while housing related cash benefits play an important role in this respect in the UK, France and Germany. In Denmark and the Netherlands, housing benefits are, as a fraction of total net taxes, largest for households with pre-tax-benefit incomes above about 40% of the median while for lower-income groups they are less important.

5. The effective tax burden on labour income

The focus in this section is on the tax burden borne by labour incomes. As briefly discussed above this means that AETRs need to be evaluated for the individuals supplying the worked hours. It also requires a different definition of ‘net taxes’ and ‘tax base’ than the exercise in section 4. First, although we are, again, only concerned with payments rather than the total ‘losses’ they give rise to, it should not matter who pays the taxes formally.²³ As a result, employer SIC paid on behalf of the employee are included in the numerator of the AETR ratio along with own SIC and income taxes. Since it is the burden on total labour income we are interested in employer SIC also need to be added to employment income to yield the ‘tax base’ denominator.²⁴ As a rule, benefits are not subtracted from the numerator. An exception

²² Per-capita levels have, again, been derived using the ‘modified OECD’ equivalence scale.

²³ There is, however, a long-running debate whether SIC paid by employers have a stronger or more immediate effect on labour demand than own SIC. For arguments in support of this link see, for instance, Leibfritz, *et al.* (1997). For recent empirical evidence pointing towards little effect of payroll taxes on labour demand see Bauer and Riphahn (2002).

²⁴ It should be noted that the calculations do not take into account components of ‘non-wage labour costs’ that cannot be simulated using household micro-data. These include payroll taxes that depend on firm-specific characteristics. However, employer SIC as simulated by EUROMOD do represent the major part of total payroll taxes. Another area where household micro-data typically do not provide detailed information is the provision of voluntary employer insurance contributions to occupational pension plans, etc. To the extent that these vary

are in-work benefits in the UK (Family Credit in 1998; now Working Families' Tax Credit) which constitute a tax concession particularly designed to increase net labour incomes.²⁵

An interesting conceptual question concerns the treatment of consumption taxes. Traditionally, it has been argued that, as they also reduce earners' consumption opportunities, they need to be included in calculations of the 'labour tax wedge' by adding them to the AETR numerator.²⁶ However, a contrasting view is that, since consumption taxes apply to both earners and non-earners, they do not constitute a 'labour tax wedge' and therefore do not matter for studying the relationship of tax burdens and unemployment (Daveri and Tabellini, 2000). In the results presented here, I implicitly adopt the second view as, for technical reasons, it is difficult to include consumption taxes in the fourteen country simulation exercise.²⁷

Since AETRs are computed at an individual level rather than for the household as a whole it is necessary to assume sharing arrangements for joint income taxes. In this exercise, it is assumed that any joint income tax burdens of a joint tax unit are shared in proportion to taxable income.²⁸ Another issue concerns the treatment of self-employment incomes which, by their nature, are part labour income and part income from capital. Carey and Tchilinguirian, 2000 present an approach which attempts to identify these components in the correct proportions at the macro-level. Due to the generally poor quality of self-employment income variables as available in micro-data sources the present paper does not attempt to approximate appropriate shares of labour and capital components and instead restricts its scope to employees only. This is important when interpreting results for countries where self-employment incomes are important (e.g., Greece, Portugal) and may frequently represent a 'second-choice' substitute for regular employment.

Because income taxes are levied on the sum of all taxable income it is not entirely straightforward to find the tax paid on labour income alone in cases where individuals have income from more than one source. The approach taken here is to find the average income tax rate which applies to taxable income as a whole and to assume that this rate applies uniformly to all taxable income components (a result of this assumption is that AETRs on labour incomes will tend to be underestimated in countries where other income sources, such as income from capital, are effectively taxed at a lower rate). A similar method is used for computing the average labour 'tax' rate due to SIC. As people can, at a given point in time,

between countries, any results based on such data-sources may not adequately capture these differences. This will also be true for the numbers presented in this paper.

²⁵ For a discussion of the properties of UK in-work benefits see, for instance, Blundell and Hoynes (forthcoming).

²⁶ According to Layard, *et al.* (1991), p. 209, for instance, this wedge is "the gap between real labour costs of the firm [...] and the real, post-tax consumption wage of the worker".

²⁷ Most EUROMOD datasets are income surveys containing no information on expenditures. While there are ways to impute the relevant variables from expenditure surveys, using imputed values for studying distributional issues on a disaggregated level can be problematic. See Baldini, *et al.* (forthcoming) and Sutherland, *et al.* (2002).

²⁸ After any deductions, i.e., the income to which the tax schedule applies. In some countries, such as Belgium, tax schedules are formally individual based but as considerable amounts of taxable income are transferable from the higher-earning to the lower-earning spouse, a sizable 'joint' element exists nevertheless. In these cases, I treat the transfer as a tax-concession for higher-earning spouses, i.e., they are still assumed to pay the tax due on any transferred taxable income, albeit at the lower rate at which the lower-earnings spouse would be taxed.

have more than one income subject to SIC (e.g., employment and self-employment income) it is assumed that the resulting average ‘tax’ rate applies uniformly to all components of the SIC base. In a last step, the average income tax and SIC rates are added up to find total AETRs on labour income.

The results for the employed population (non-civil servants and aged 18-64) are presented in table 6a.^{29,30} First, it is instructive to compare the mean effective tax burdens to those resulting from existing macro-based studies. There are, of course, important conceptual differences and one would therefore not expect to find similar numbers. Nevertheless, results from different studies should at least to some degree be reconcilable if they are to be useful for policy analysis purposes. In table 6b EUROMOD results for employees are compared with those reported in Martinez-Mongay, 2000: 27. In both cases, countries are ranked in descending order of AETRs. We see that EUROMOD results are higher in all fourteen countries and this is particularly true for countries such as Portugal, Greece, Italy or Spain, where tax evasion plays a role (as mentioned in section 4, the results in this paper refer to theoretical tax and SIC liabilities in a situation of no tax evasion). More importantly, however, one should keep in mind that the micro-based approach used here is able to focus exclusively on the income taxes and SIC paid by those working during the entire year (see footnote 30) and thus isolate the effective tax burden on labour incomes alone. Macro-based AETRs are distorted in this respect as they cannot easily separate those parts of taxes and SIC levied on labour incomes from those levied on unemployment benefits, pensions, etc. There are other data-related issues that can help explain discrepancies between micro- and macro-based AETR estimates such as a known under-representation of very high incomes in underlying household surveys (Sutherland, 2001a). With the notable exception of Luxembourg and Portugal as well as Italy the ordering of countries in the first two columns of table 6b is, nevertheless, remarkably similar for both sets of measures.

While this is somewhat reassuring the main point of computing AETRs based on micro-data is to gain an understanding of the distributions of tax payments. Indeed, the results indicate that the ranking of countries can be very different depending on the group of interest. On the right-hand side of table 6b, we see that, depending on earnings levels, countries’ positions vary by between two (Belgium, Italy, UK) and eleven (Germany) ranks. The rankings of male and female earners are more similar although mean average effective tax rates for men are up to 20% higher than for women (UK). For the group of (non-civil service) employees as a whole, we see from table 6a that they are generally less dispersed than for the household based AETRs in section 4. In particular, since the total tax burden here is defined as income tax plus SIC without any consideration for benefits, there are very few negative net tax burdens on labour incomes (tax credits can, as in the UK, nevertheless cause negative

²⁹ Civil servants are excluded because the details and degree to which their insurance benefits are financed by employers vary widely across countries. Any results including civil servants would therefore be difficult to interpret. While authorities employing civil servants explicitly pay employer SIC in some countries, such contributions can neither be identified nor simulated in others.

³⁰ The ‘working population’ sub-sample here is restricted to those working during the *entire* period to which the income information in the micro-data refer to. The purpose of excluding people who have been working only part of that period while being unemployed, retired or ‘inactive’ during the rest is to avoid mixing AETRs relating to labour incomes with those that apply to unemployment benefits, pensions and other replacement incomes. Not correcting for this would make it difficult to compare results for countries with annual income information with those where incomes are measured on a monthly or weekly basis.

AETRs). Nevertheless, the width of the distribution is still considerable. AETR bands encompassing more than 10% of the working population are spread over a range of at least 15 percentage points and up to 40 percentage points in Greece. We also see a considerable number of earners where gross labour costs equal net earnings (zero AETRs in Greece, Ireland, Germany and the UK). In all fourteen countries, using aggregate or mean AETRs alone would clearly provide a poor representation of the tax burden faced by a major part of the working population.

The number of negative and zero AETRs in Germany, Greece, Ireland and the UK is sufficiently large to produce a zero median AETR for the lowest gross earnings decile group (table 7).³¹ Indeed, UK mean AETRs for this group are negative, indicating substantial refundable tax credits for employees with very low earnings. The highest AETRs apply to top earning levels in Belgium with income taxes, employee SIC and employer SIC summing up to more than 60% of gross earnings. The lowest effective tax burdens on very high earnings are found in Ireland and the UK. However, top earners are not always subject to the highest AETRs. In both Germany and the Netherlands, certain compulsory SIC are no longer due at all above the upper contribution limit as employees are supposed to find their own insurance. While in the Netherlands, very substantial jumps in marginal income tax rates in the high income range (from 6.35% to 50% and 60%) produce income tax burdens which more than compensate for the drop in SIC, this is not the case in Germany.

The regressive nature of SIC is even more visible in France where, in conjunction with progressive but small income taxes, they produce a very flat effective tax rate structure. This is confirmed in figure 2 showing the contribution of income tax and SIC to the various levels of effective tax burdens. Similar to figure 1 the tax base (right hand scale, here earnings plus employer SIC) is shown in relation to the median and as before, a negative bar indicates that, for this AETR band, the relevant income component reduces the AETR on average. SIC are a more important determinant of AETR than income taxes in all countries but Denmark, Ireland and also the UK. With the exception of Germany, Luxembourg, the Netherlands and the UK, employer SIC represent a larger component of AETRs than own SIC (particularly in Belgium and Italy).

6. No pain no gain? Marginal effective tax rates for working men and women

Tax-benefit models can be used to numerically compute METRs by altering income variables observed in the micro-data, re-computing taxes and benefits and comparing them with taxes and benefits before the income change. As the concern here is with measuring METRs for the working population the income being changed is earnings and the chosen margin is +3%. For the purpose of this paper METRs are, for reasons stated in section 2, measured at the household level. The change in net taxes following the 3% earnings increase takes into account any changes in cash income (including income taxes, *own* SIC and all simulated benefits).

While changes in net taxes are summed across all members of household they will generally be different depending on which members of household face the change in earnings. This is

³¹ Deciles in table 7 are computed in relation to the 'tax base' of the working population, i.e., on the basis of individual gross earnings *plus* employer SIC.

particularly important when evaluating financial incentives of higher/lower earning spouses to increase earnings. To capture these differences, METRs are computed separately for men and women. In other words, for households with female *and* male earners METRs are computed twice with the 3% earnings increase going, in turn, to women and men.³² The target group is restricted to the working population aged 18-64.³³

Results for this group as a whole are shown in table 8. With median METRs ranging between about 25% (Portugal and Spain) and more than 50% (Denmark, Germany) women tend to face lower METRs than men in all countries but Germany. By far the largest number of earners facing METRs in excess of 50% is found in Denmark (86% of all earners) followed by Germany (60%). On the other end of the spectrum, roughly one fourth of earners in Greece and Spain (24%) would retain the full amount of a 3% earnings increase (METR equal to, or less than, zero).³⁴ Denmark and the UK have the most concentrated distributions of METRs with 51% and 48% of the entire working population located in just one single 5 percentage point METR band (50 to 55% in Denmark; 30 to 35% in the UK).

For the latter two countries, METRs differ, in fact, very little between different (household-) income groups (table 9a). METRs between the highest and lowest decile group differ by little more than ten percentage points. In the UK, earners in the bottom two decile groups are subject to considerably *larger* marginal tax burdens than their high-income counterparts – a result of high withdrawal rates for both means tested benefits (Income Support, Job Seekers' Allowance, Housing Benefit, Council Tax Benefit) and in-work benefits (Family Credit) and SIC thresholds below which no contributions are payable. Among earners in the bottom decile group, women in the UK are subject to higher METRs than men and therefore appear to be more likely to face situations where large amounts of any additional earnings are effectively taxed away through benefit withdrawals. A similar spike in METRs at low income levels exists in Ireland (for women) and Portugal (for men) while in the other countries the joint effects of benefit withdrawals and tax/SIC thresholds appear to affect the working population to a lesser extent. In Denmark, the small differences in METRs between high and low income earners is less related to exceptionally high marginal rates at the bottom than to a very flat income tax schedule.

This is also visible in table 9b showing METRs by individual earnings deciles. The most interesting dimension here, however, is that of gender differentials. While METRs for the

³² In households with more than one (working-age) earner of the same sex each of them simultaneously receives a 3% increase. The resulting METRs for these households can thus be interpreted as an average between each of those earners.

³³ However, since METRs are meaningful regardless of the type and duration of work activities the group is much less restricted and includes civil servants, the self-employed, and those with more than one labour market status during the observation period.

³⁴ Negative METRs, while relatively rare, can be caused by tax concessions or benefits which are contingent upon having income of at least a certain level. Those with income just below that level will see their after-tax-benefit income rise by more than the 3% earnings increase. In addition, and as mentioned in section 5, some countries (Germany, the Netherlands) operate SIC schemes where earners of incomes beyond the upper contribution level are no longer liable to pay *any* SIC. Clearly, this will cause METRs of some high-income earners to be negative. Of course, people no longer covered by the compulsory social insurance scheme will normally continue to pay insurance contributions on a voluntary basis. This important qualification of all effective tax rate results based exclusively on compulsory taxes and SIC applies also to the results presented in this paper.

working population as a whole were generally lower for women we now see a more diverse picture. In countries with joint income tax filing, women tend to face higher METRs than men in the same earnings group (France, Germany, Ireland, Luxembourg, Portugal, Spain). For some decile groups, noticeable differences also exist where there are tax systems that, although not formally employing a joint tax base, allow sizable parts of income or tax concessions to be transferred from the higher- to the lower earnings spouse. The scatter plot in figure 3 illustrates the direction and extent of METR gender differentials across countries: Those cases in table 9b where METRs for women exceed those for men in the same earnings group are below the 45-degree line (and *vice versa*). Overall, this points towards higher METRs for women although the situation differs widely between countries.

Taking a closer look at which tax-benefit instruments drive METRs the important role of benefits is clearly visible in figure 4. The withdrawal of means-tested benefits is the major contributor to very high (>80%) METRs in all countries but Greece, where the withdrawal of income tax concessions is more important.³⁵ These are also very relevant in the UK where the tapering-away of in-work benefits has a noticeable effect. We also note that, throughout all countries, the highest METRs are not faced by the highest-earning individuals but by those earning (often substantially) less than the median earner (dashed line in figure 4). Indeed, those living on incomes below the poverty threshold are clearly more likely to face situations where very high parts of any additional earnings are lost mainly through lower benefits (table 10). Such ‘poverty traps’ can be identified in all countries, again with the exception of Greece where means-tested benefits are generally less important.

7. Conclusion

The aim of this paper was to introduce a microsimulation based method to assess effective tax rates and to present results for fourteen EU Member States. It was argued that effective tax burdens faced by people can differ substantially depending on the particular labour market and household situation and that these differences matter when assessing the economic consequences of tax-benefit systems.

The distributions of both average and marginal effective tax rates show that summing up the effective tax burden using one single average or macro-based figure can provide very misleading pictures of effective tax burdens for large numbers of people. Micro-based measures of effective tax rates therefore have an important role in enriching and complementing indicators based on macro-data or ‘typical household’ type calculations. In addition, marginal effective tax rates are impossible to derive looking at aggregates alone. The results in this paper show that differences between average and marginal effective tax rates in both level and distribution can be substantial and that using average tax rates as proxies for marginal rates will therefore often be problematic.

³⁵ As, in some countries, unemployment benefit amounts cannot be simulated (but are instead taken from the micro-data) due to lacking information on contribution histories, any means-testing of these benefit amounts are not captured in the results reported here. Countries where unemployment benefits are not simulated and, in 1998, did depend on other household members’ incomes are Austria, Belgium, Germany, Greece, Luxembourg, the Netherlands and Spain. As a result, METRs for low-earning individuals in these countries represent lower-bound estimates. Details on the simulations for each country can be found in the EUROMOD country reports available through www.econ.cam.ac.uk/dae/mu/emod.htm.

One attraction of computing macro-based effective tax rates is that it is relatively straightforward and, given the availability of consistent international data, can easily be implemented across different countries. An assessment of effective tax burdens at the micro-level, on the other hand, is confronted with a large number of conceptual and definitional issues as the discussion in this paper has shown. This is particularly true when comparing rates across a number of countries. This multitude of measurement issues raises two relevant questions. First, is it feasible? Given the effort needed to build simulation models, harmonise micro-data and keeping both policy rules and data sources up-to-date, undertaking comprehensive multi-country studies on a regular basis seems difficult. Microsimulation models, however, are useful for a multitude of purposes (e.g., Atkinson, 2002). Similar to micro-data they can therefore be considered as research infrastructure. If supported as such the effort and amount of resources needed for any particular study will become less prohibitive as synergies between different model applications are exploited.

A second question is whether the considerable number of choices to be made in deriving micro-based tax burden measures and the potential sensitivity of results with respect to these choices make results difficult to interpret. The absence of such detailed choices in the case of macro-based tax burden indicators does, however, not mean that these choices are irrelevant. Rather, any numbers based on approaches where questions regarding, for instance, the appropriate unit of analysis, do not arise should probably be confronted with some degree of caution.

References

- Agell J, T Lindh and H Ohlsson, 1997, "Growth and the public sector: A critical review essay", *European Journal of Political Economy*, 13, pp. 33-52.
- _____, 1999, "Growth and the public sector: A replay", *European Journal of Political Economy*, 15, pp. 359-66.
- Atkinson A B, 2002, "Evaluation of National Action Plans on Social Inclusion: The role of EUROMOD", *EUROMOD Working Paper EM1/02*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- Baldini M, D Mantovani and C O'Donoghue, forthcoming, "Imputing expenditure and simulating indirect taxes using EUROMOD (provisional title)", *EUROMOD Working Paper EM7/01*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- Barro R J and C Sahasakul, 1986, "Average marginal tax rates from social security and the individual Income Tax", *Journal of Business*, 59 (4).
- Bauer T and R T Riphahn, 2002, "Employment effects of payroll taxes - an empirical test for Germany", *Applied Economics*, 34, pp. 865-76.
- Blundell R and H Hoynes, forthcoming, "Has 'In-Work' Benefit Reform Helped the Labour Market?", in: Blundell R, D Card and R B Freeman (eds.), *Seeking a Premier League Economy*, Chicago: University of Chicago Press.

- Canberra Group, 2001, *Final Report and Recommendations*, Ottawa: The Canberra Group: Expert Group on Household Income Statistics.
- Carey D and H Tchilinguirian, 2000, "Average effective tax rates on capital, labour and consumption", *OECD Economics Department Working Paper*, OECD, 258.
- Carone G and A Salomäki, 2001, "Reforms in tax-benefit systems in order to increase employment incentives in the EU", *EC DG ECFIN Economic Papers*, European Commission, 160.
- Creedy J and A Duncan, 2002, "Behavioural Microsimulation with Labour Supply Responses", *Journal of Economic Surveys*, 6 (1), pp. 1-39.
- Daveri F and G Tabellini, 2000, "Unemployment, growth and taxation in industrial countries", *Economic Policy*.
- Dilnot A, J Kay and M Keen, 1990, "Allocating Taxes to Households: A Methodology", *Oxford Economic Papers*, 42 (1), pp. 210-30.
- Easterly W and S Rebelo, 1993, "Marginal income tax rates and economic growth in developing countries", *European Economic Review*, 37, pp. 409-17.
- Immervoll H and C O'Donoghue, 2001a, "Imputation of Gross Amounts from Net Incomes in Household Surveys: An Application using EUROMOD", *EUROMOD Working Paper EM1/01*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- _____, 2001b, "Towards a Multi-Purpose Framework for Tax-Benefit Microsimulation. A discussion by reference to MMEANS, a software system used for constructing EUROMOD, a tax-benefit model for the European Union", *EUROMOD Working Paper EM2/01*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- _____, 2001c, "Welfare benefits and work incentives: the distribution of net replacement rates in Europe", *EUROMOD Working Paper EM4/01*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- Immervoll H, C O'Donoghue and H Sutherland, 1999, "An Introduction to EUROMOD", *EUROMOD Working Paper EM0/99*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- Immervoll H, F Berger, M Borsenberger, J Lumen, B Scholtus and K d Vos, 2001, "The impact of tax-benefit systems on low-income households in the Benelux countries. A simulation approach using synthetic datasets", *Schmollers Jahrbuch - Journal of Applied Social Science Studies*, 121 (3), pp. 313-52.
- Jacobs O H and C Spengel, 1999, "The effective average tax burden in the European Union and the USA. A computer-based calculation and comparison with the model of the European Tax Analyzer", Centre for European Economic Research (ZEW) and University of Mannheim.
- Layard R, S Nickell and R Jackman, 1991, *Unemployment: Macroeconomic performance and the labour market*, Oxford: Oxford University Press.
- Leibfritz W, J Thornton and A Bibbee, 1997, "Taxation and economic performance", *OECD Economics Department Working Paper*, OECD, 176.
- Lucas R E, 1990, "Supply-side economics: an analytical review", *Oxford Economic Papers*, 42, pp. 293-316.

- Martinez-Mongay C, 2000, "ECFIN's Effective tax rates. Properties and Comparisons with other tax indicators", *EC DG ECFIN Economic Papers*, European Commission, 146.
- Martinez-Mongay C and R Fernández-Bayón, 2001, "Effective taxation, spending and employment performance", in: Buti M, P Sestito and H Wijkander (eds.), *Taxation, Welfare and the Crisis of Unemployment in Europe*, Cheltenham: Edward Elgar, pp. 55-94.
- Mendoza E G, A Razin and L L Tesar, 1994, "Effective tax rates in macroeconomics: cross-country estimates of tax rates on factor incomes and consumption", *Journal of Monetary Economics*, 34 (3), pp. 297-323.
- Mercader-Prats M, 1997, "On the distributive and incentive effects of the Spanish income tax: A comparison of 1980 and 1994", *European Economic Review*, 41 (3), pp. 609-17.
- O'Donoghue C and H Sutherland, 1999, "Accounting for the family in European income tax systems", *Cambridge Journal of Economics*, 23, pp. 565-98.
- OECD, 2000a, *Taxing Wages 1999-2000*, Paris: OECD.
- _____, 2000b, *Tax Burdens: Alternative Measures*, Paris: OECD.
- _____, 2000c, *Effective Tax Rates: A Critical Survey*, Paris: OECD.
- Padovano F and E Galli, 2001, "Tax rates and economic growth in the OECD countries (1950-1990)", *Economic Inquiry*, 39 (1), pp. 44-57.
- Pudney S and H Sutherland, 1994, "How reliable are microsimulation results? An analysis of the role of sampling error in a UK tax-benefit model", *Journal of Public Economics*, 53, pp. 327-65.
- Sorensen P B, 1997, "Public finance solutions to the European unemployment problem?", *Economic Policy*, 25.
- Stern N H, 1987, "The Effects of Taxation, Price Control and Government Contracts in Oligopoly and Monopolistic Competition", *Journal of Public Economics*, 32, pp. 133-58.
- Sutherland H, 2001a, "EUROMOD Data Robustness Assessment Exercise", Microsimulation Unit, Department of Applied Economics, University of Cambridge.
- _____, 2001b, "Final Report. EUROMOD: An integrated European benefit-tax model", *EUROMOD Working Paper EM9/01*, Department of Applied Economics, University of Cambridge, available through <http://www.econ.cam.ac.uk/dae/mu/emod.htm>.
- Sutherland H, R Taylor and J Gomulka, 2002, "Combining Household Income and Expenditure data in policy simulations", *Review of Income and Wealth*, (forthcoming, December)
- Weinberg D H, 1999, "Income Data Collection in International Household Surveys" (Paper presented at the 3rd Meeting of the Canberra Group in Ottawa, Canada, June 7-9).

Tables and Graphs.

Table 1. Distribution of Household Average Effective Tax Rates

	AT		BE		DK		FI		FR		GE		GR		IR		IT		LU		NL		PT		SP		UK	
median [%]	20.0		16.9		34.0		21.1		17.1		15.0		13.7		5.8		19.7		12.1		23.8		12.7		11.3		13.8	
mean [%]	22.9		22.4		37.1		22.0		18.1		23.7		20.9		13.2		24.3		18.0		25.6		18.7		16.6		12.7	
Std. Dev.	20.1		21.1		18.7		27.9		21.9		22.0		18.5		18.4		17.2		18.1		16.5		14.2		11.1		24.4	
AETR band [%]	Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.		Frequ. no. [%] Obs.	
<=-100	1.5	50	5.7	150	3.0	75	8.9	474	3.5	389	6.4	406	6.0	294	6.0	158	0.9	71	1.3	30	6.9	294	2.1	123	0.4	32	14.8	991
-100 to -50	2.3	49	1.5	41	0.9	27	4.7	279	3.0	345	2.0	156	1.3	77	1.7	65	1.3	90	1.5	42	1.2	57	0.8	50	0.3	14	4.5	302
-50 to -40	0.6	17	0.6	17	0.4	10	1.5	94	1.1	115	0.7	41	0.4	22	1.0	45	0.6	47	0.8	23	0.4	19	0.5	26	0.1	3	1.4	95
-40 to -30	1.1	29	1.2	32	0.6	14	2.1	138	1.4	156	1.0	61	1.0	51	1.2	43	0.7	57	1.1	28	0.1	9	0.4	22	0.1	7	1.8	125
-30 to -20	1.6	47	1.2	36	0.8	21	2.2	154	2.1	237	0.8	79	1.0	55	2.5	90	0.8	68	1.9	50	0.2	15	0.6	36	0.3	20	1.7	116
-20 to -10	2.8	81	2.5	63	1.0	32	3.5	255	3.9	427	1.8	164	2.6	140	4.6	179	1.8	140	3.5	83	0.9	38	1.1	78	0.6	34	2.2	149
-10 to 0	3.2	96	3.5	92	1.6	44	4.7	391	6.2	685	3.1	243	7.9	399	6.3	259	4.2	359	6.2	159	2.1	92	3.7	155	3.0	194	3.6	250
0	0.8	17	6.3	144	0.1	4	0.0	1	0.0	1	1.4	82	2.5	147	19.5	601	1.0	70	0.0	0	0.2	11	14.5	828	18.7	1070	0.1	9
0 to 5	8.9	249	10.0	250	2.4	67	3.3	294	5.5	622	4.2	289	12.3	572	6.3	315	7.1	522	10.2	222	1.8	78	8.6	417	8.4	522	4.5	313
5 to 10	5.2	148	7.7	214	3.1	89	3.8	378	7.2	823	24.5	1425	9.4	497	7.2	382	6.8	556	16.2	383	4.6	204	10.1	486	14.0	893	7.6	541
10 to 15	9.9	302	6.7	195	3.6	115	5.3	518	10.6	1169	4.1	369	8.4	475	12.0	571	9.7	803	15.7	423	11.0	515	15.8	785	17.9	1089	9.8	694
15 to 20	12.5	342	8.9	244	6.3	192	7.7	794	14.0	1594	6.2	529	14.3	765	12.2	578	15.7	1293	13.0	362	10.5	480	18.6	881	17.2	1078	14.7	1048
20 to 25	15.0	417	9.0	275	7.9	265	11.5	1238	16.7	1935	7.0	644	11.3	616	7.9	341	17.3	1424	10.9	291	13.7	675	11.0	494	13.1	805	21.3	1434
25 to 30	16.3	412	10.4	313	9.0	326	15.6	1717	17.4	1985	7.2	744	8.4	433	6.0	230	16.5	1375	8.1	202	22.0	995	6.0	227	3.8	230	10.3	631
30 to 35	11.2	262	10.0	305	12.5	421	14.4	1652	5.9	643	9.3	915	7.3	382	4.3	146	9.4	764	5.4	139	17.5	787	4.9	154	1.2	65	1.3	83
35 to 40	5.3	118	7.4	244	19.2	632	7.1	983	1.2	129	10.5	911	4.1	201	1.3	42	4.2	335	2.7	65	4.2	186	1.1	36	0.5	32	0.2	14
40 to 45	1.5	30	3.7	121	19.1	619	2.6	418	0.2	26	7.4	500	1.3	64	0.1	3	1.4	112	1.2	30	1.6	68	0.1	3	0.3	20	0.0	0
45 to 50	0.7	8	1.0	31	5.8	180	0.7	144	0.0	5	2.2	110	0.2	13	0.0	0	0.2	19	0.3	7	0.6	27	0.0	0	0.1	6	0.0	0
>50	0.0	0	2.6	67	2.7	82	0.4	88	0.1	5	0.2	9	0.2	11	0.0	0	0.4	30	0.0	0	0.4	18	0.1	5	0.1	5	0.0	2
	100.0	2674	100.0	2834	100.0	3215	100.0	10010	100.0	11291	100.0	7677	100.0	5214	100.0	4048	100.0	8135	100.0	2539	100.0	4568	100.0	4806	100.0	6119	100.0	6797

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data. To avoid difficult to interpret 'distortions' due to highly negative AETRs by net benefit recipients, standard deviations have only been computed for those observations with AETR values between +/- 100%. See text for further explanations. Modal values are shown in **bold** typeface.

Table 2. Distribution of Household AETRs: by Quintile Groups (Household Disposable Incomes)

Quintile Group	AT					BE					DK				
	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>
median [%]	3.7	13.4	20.3	24.9	31.5	0.0	4.9	16.9	26.2	34.1	19.0	27.0	35.5	39.1	43.3
mean [%]	-2.0	11.7	19.3	24.5	31.7	-12.9	8.8	17.8	25.0	33.4	13.8	24.4	34.4	38.9	46.0
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<= -100	5.8 46	1.0 3	0.0 0	0.1 1	0.0 0	19.5 115	4.0 21	1.7 6	0.6 4	0.8 4	10.1 67	1.2 6	0.4 2	0.0 0	0.0 0
-100 to -50	5.7 31	2.0 7	3.0 8	0.4 2	0.2 1	3.5 20	0.8 7	1.2 5	1.4 7	0.5 2	2.5 20	1.0 6	0.2 1	0.0 0	0.0 0
-50 to -40	1.0 8	0.9 5	0.3 1	0.5 2	0.1 1	1.5 9	0.6 5	0.1 1	0.0 0	0.4 2	1.1 8	0.4 2	0.0 0	0.0 0	0.0 0
-40 to -30	1.6 12	2.9 13	0.5 3	0.4 1	0.0 0	4.0 23	0.7 4	0.5 2	0.1 1	0.4 2	1.3 8	0.9 4	0.4 2	0.0 0	0.0 0
-30 to -20	3.7 30	3.4 13	0.8 4	0.0 0	0.0 0	2.4 16	1.6 11	0.8 4	0.8 3	0.3 2	1.9 13	1.6 8	0.0 0	0.0 0	0.0 0
-20 to -10	6.2 39	5.0 28	2.0 10	0.6 4	0.0 0	5.8 30	2.8 18	2.1 10	0.6 2	0.6 3	1.8 15	1.9 12	1.0 5	0.0 0	0.0 0
-10 to 0	7.1 40	5.2 37	1.7 11	1.4 6	0.3 2	8.6 43	4.0 26	2.6 15	1.2 7	0.3 1	1.0 9	5.3 29	1.4 6	0.0 0	0.0 0
0	2.7 15	0.3 1	0.0 0	0.0 0	0.6 1	10.1 53	16.3 80	2.0 9	0.0 0	0.4 2	0.3 3	0.1 1	0.0 0	0.0 0	0.0 0
0 to 5	32.6 199	5.1 28	1.7 9	1.8 11	0.6 2	16.7 91	19.8 109	6.9 33	2.2 11	1.1 6	1.7 14	7.4 44	2.2 8	0.2 1	0.0 0
5 to 10	11.2 67	8.9 52	2.9 16	1.8 10	0.8 3	6.7 36	11.0 72	12.8 71	5.9 27	1.7 8	5.7 44	6.3 36	1.9 9	0.0 0	0.0 0
10 to 15	11.0 86	20.9 103	12.6 73	4.7 30	1.8 10	3.3 20	9.1 61	13.4 74	5.1 27	2.7 13	9.7 79	4.5 30	0.7 5	0.2 1	0.0 0
15 to 20	7.1 42	20.8 97	22.5 123	11.5 60	3.1 20	4.8 25	10.3 57	16.4 87	10.8 54	3.0 21	16.8 137	7.2 44	1.8 9	0.4 2	0.0 0
20 to 25	2.7 14	16.9 81	19.7 110	27.5 156	10.8 56	2.2 13	7.9 54	13.4 78	17.0 91	6.4 39	18.8 178	8.1 52	5.7 25	1.7 8	0.3 2
25 to 30	1.5 9	3.6 24	25.9 105	29.6 150	22.0 124	1.7 10	5.3 34	12.3 66	24.0 125	12.1 78	16.6 171	14.3 95	5.9 37	3.7 21	0.3 2
30 to 35	0.1 3	1.9 12	3.6 16	13.7 61	34.5 170	1.2 6	2.3 16	6.7 35	18.8 102	24.1 146	5.4 50	22.1 156	23.8 140	11.2 60	2.5 15
35 to 40	0.1 1	0.6 2	1.8 9	3.2 16	19.0 90	0.5 4	1.5 12	4.1 23	7.2 38	25.7 167	3.5 29	10.3 74	32.7 179	41.4 242	18.2 108
40 to 45	0.0 0	0.4 1	0.7 4	0.8 3	5.2 22	0.2 2	1.1 7	1.0 7	2.8 15	14.1 90	1.1 8	6.5 41	19.9 110	34.4 191	43.4 269
45 to 50	0.0 0	0.0 0	0.0 0	2.1 2	1.2 6	0.0 0	0.1 1	1.0 6	0.1 1	3.8 23	0.0 0	0.5 3	1.8 8	6.2 33	23.1 136
>50	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	7.3 40	0.8 4	1.3 7	1.5 7	1.5 9	0.8 7	0.3 2	0.2 1	0.7 3	12.1 69
	100.0 642	100.0 507	100.0 502	100.0 515	100.0 508	100.0 556	100.0 599	100.0 539	100.0 522	100.0 618	100.0 860	100.0 645	100.0 547	100.0 562	100.0 601

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. Modal values are shown in **bold** typeface.

Table 2. (continued)

Quintile Group	FI										FR					GE				
	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>					
median [%]	-26.1	13.1	23.9	28.6	34.0	-7.3	11.2	17.1	22.4	26.9	-1.3	7.7	19.7	31.6	32.9					
mean [%]	-25.9	6.6	19.5	26.3	34.1	-15.1	7.7	14.5	20.4	26.4	-23.2	10.3	22.0	28.5	32.6					
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.					
<= -100	27.6 371	6.4 66	1.4 19	0.8 9	0.3 9	13.6 297	1.6 36	1.7 36	0.3 7	0.6 13	23.1 316	5.0 71	0.8 10	0.2 4	0.5 5					
-100 to -50	12.2 188	6.1 64	1.1 16	0.3 5	0.3 6	9.6 216	2.6 64	1.2 28	1.0 22	0.7 15	7.2 117	1.6 34	0.2 2	0.0 1	0.3 2					
-50 to -40	3.3 51	2.4 33	0.6 7	0.1 3	0.0 0	2.8 61	1.5 30	0.6 15	0.4 8	0.0 1	2.0 25	0.3 8	0.6 4	0.2 2	0.1 2					
-40 to -30	4.8 74	3.4 44	0.8 13	0.3 5	0.1 2	3.8 87	1.2 27	0.7 17	0.5 10	0.6 15	2.7 38	1.6 16	0.4 2	0.1 1	0.3 4					
-30 to -20	5.7 89	2.5 45	0.8 14	0.1 2	0.2 4	5.3 120	2.0 47	1.7 38	0.8 15	0.9 17	2.1 51	1.3 19	0.1 2	0.1 2	0.4 5					
-20 to -10	7.2 118	4.7 81	2.7 35	0.7 10	0.4 5	11.0 230	4.4 107	1.8 40	1.3 28	1.0 22	4.9 94	2.4 42	0.9 19	0.2 4	0.2 5					
-10 to 0	7.8 146	8.4 131	4.2 84	1.0 23	0.2 7	12.4 259	11.3 258	3.5 81	1.9 41	1.9 46	8.5 146	4.1 67	0.9 15	0.9 10	0.2 5					
0	0.1 1	0.0 0	0.0 0	0.0 0	0.0 0	0.0 1	0.0 0	0.0 0	0.0 0	0.0 0	3.1 44	2.0 15	1.4 15	0.4 6	0.2 2					
0 to 5	4.5 84	5.0 89	3.8 72	1.8 34	0.7 15	11.3 244	9.7 222	4.3 101	1.5 33	0.9 22	9.3 123	4.2 63	3.2 53	2.5 34	1.3 16					
5 to 10	4.2 89	5.9 111	5.1 95	2.8 58	0.8 25	9.6 219	12.7 288	8.6 196	3.4 77	1.7 43	25.0 297	36.4 412	32.3 371	20.3 237	10.3 108					
10 to 15	5.0 103	8.4 152	6.9 126	4.1 95	1.8 42	7.1 156	17.2 385	16.7 352	9.3 208	2.9 68	3.6 83	3.3 86	5.8 75	4.5 78	3.4 47					
15 to 20	8.4 147	9.1 189	10.4 210	7.6 161	2.8 87	5.9 131	14.4 339	21.0 472	19.1 425	10.0 227	3.3 81	11.5 174	3.3 70	5.9 110	7.6 94					
20 to 25	6.4 134	16.1 297	17.2 338	13.2 286	6.9 183	4.8 115	14.1 329	20.8 471	24.8 573	19.2 447	3.2 56	10.1 219	5.2 116	6.1 112	11.0 139					
25 to 30	1.3 61	17.0 273	26.6 486	26.4 535	13.5 362	2.1 48	6.9 151	15.7 344	30.6 680	31.2 762	1.8 31	8.9 190	10.0 241	5.9 121	10.0 161					
30 to 35	0.7 29	3.2 83	15.9 249	29.4 564	29.8 727	0.3 7	0.5 12	1.7 32	4.7 95	21.4 497	0.2 5	5.6 112	16.5 331	15.9 284	9.5 183					
35 to 40	0.4 20	0.8 29	1.7 62	9.5 180	26.2 692	0.2 5	0.0 0	0.0 0	0.2 4	5.2 120	0.1 1	1.7 30	16.1 200	20.8 426	14.6 254					
40 to 45	0.3 10	0.2 11	0.5 28	1.0 28	11.9 341	0.0 1	0.0 0	0.0 0	0.0 1	1.1 24	0.0 0	0.1 3	2.2 21	15.3 180	19.4 296					
45 to 50	0.1 4	0.2 10	0.2 9	0.4 22	2.7 99	0.0 0	0.0 0	0.0 0	0.0 0	0.2 5	0.0 0	0.0 0	0.0 1	0.8 6	9.7 103					
>50	0.0 2	0.1 4	0.1 6	0.5 15	1.4 61	0.0 1	0.0 0	0.0 0	0.0 0	0.3 4	0.0 0	0.0 0	0.0 0	0.0 0	1.0 9					
	100.0 1721	100.0 1712	100.0 1869	100.0 2041	100.0 2667	100.0 2198	100.0 2295	100.0 2223	100.0 2227	100.0 2348	100.0 1510	100.0 1561	100.0 1548	100.0 1618	100.0 1440					

Table 2. (continued)

Quintile Group	GR										IR					IT														
	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>															
median [%]	-6.2	5.0	12.9	18.6	26.3	0.0	0.0	9.8	16.1	24.9	3.5	13.1	19.7	23.7	28.7															
mean [%]	-5.8	9.9	15.7	20.8	28.7	-32.2	-11.6	6.7	15.3	24.3	4.4	14.7	21.0	24.2	30.1															
AETR band [%]	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.				
<=100	26.1	290	0.2	2	0.1	1	0.0	0	0.1	1	18.0	101	7.8	50	1.5	7	0.0	0	0.0	0	3.4	51	0.5	12	0.3	4	0.2	3	0.1	1
-100 to -50	5.4	72	0.2	2	0.3	2	0.1	1	0.0	0	1.2	12	5.5	41	1.6	11	0.2	1	0.0	0	3.6	53	1.2	16	1.0	12	0.5	6	0.2	3
-50 to -40	1.5	20	0.2	2	0.0	0	0.0	0	0.0	0	0.8	9	3.1	31	1.0	5	0.0	0	0.0	0	2.3	28	0.6	15	0.2	3	0.0	0	0.1	1
-40 to -30	3.0	34	1.4	16	0.1	1	0.0	0	0.0	0	1.3	10	3.0	20	1.5	13	0.0	0	0.0	0	2.4	36	0.8	14	0.2	5	0.2	1	0.1	1
-30 to -20	2.3	27	2.1	21	0.3	4	0.3	3	0.0	0	6.5	44	2.8	24	0.8	10	1.2	8	0.3	4	2.9	40	0.7	16	0.5	10	0.0	1	0.0	1
-20 to -10	7.2	90	4.0	38	0.7	9	0.3	3	0.0	0	12.2	97	4.5	40	3.6	30	0.5	6	1.2	6	6.0	82	1.5	29	0.7	13	0.8	11	0.2	5
-10 to 0	11.3	131	20.6	199	5.4	55	1.4	14	0.0	0	8.6	70	11.9	98	7.0	57	2.8	26	0.9	8	11.1	180	7.7	123	1.6	32	1.0	18	0.2	6
0	8.4	112	1.9	23	1.1	12	0.0	0	0.0	0	48.3	290	38.2	284	3.1	22	0.1	1	0.7	4	4.8	65	0.1	2	0.0	0	0.0	0	0.0	0
0 to 5	10.0	117	19.8	181	22.6	179	9.0	82	1.1	13	2.7	24	11.6	94	12.3	115	5.8	68	1.2	14	23.3	320	9.6	150	1.2	19	1.1	20	0.9	13
5 to 10	3.0	49	9.7	111	14.3	140	14.7	133	6.7	64	0.2	4	6.9	56	18.8	152	10.0	110	3.5	60	11.6	190	15.6	243	5.1	77	1.6	26	0.9	20
10 to 15	2.7	45	9.0	100	11.6	122	11.8	126	8.3	82	0.1	1	4.2	33	31.5	216	22.2	204	8.3	117	6.7	106	19.5	300	12.7	224	5.6	95	4.4	78
15 to 20	9.1	123	15.6	152	17.1	179	18.7	187	12.1	124	0.1	1	0.4	4	15.5	106	34.4	282	14.7	185	6.3	107	18.6	297	27.4	448	17.5	271	9.0	170
20 to 25	3.5	49	8.6	95	11.3	122	16.9	165	17.5	185	0.0	0	0.1	1	1.7	11	18.2	130	19.6	199	6.6	107	10.4	164	22.5	386	29.7	456	16.8	311
25 to 30	2.4	33	5.4	49	9.4	93	10.3	97	15.5	161	0.0	0	0.0	0	0.3	2	4.5	32	23.7	196	4.6	80	7.9	125	17.2	287	27.7	447	24.4	436
30 to 35	1.4	19	1.0	10	4.5	44	10.3	100	20.0	209	0.0	0	0.0	0	0.1	1	0.3	2	19.4	143	1.7	34	3.8	58	7.1	116	10.2	168	23.4	388
35 to 40	1.0	13	0.2	3	0.4	4	4.7	43	14.4	138	0.0	0	0.0	0	0.0	0	0.0	0	6.2	42	0.6	13	1.1	21	1.8	36	3.2	53	13.7	212
40 to 45	0.8	11	0.1	2	0.7	6	1.1	10	3.5	35	0.0	0	0.0	0	0.0	0	0.0	0	0.4	3	0.4	7	0.1	3	0.4	7	0.7	13	5.1	82
45 to 50	0.2	3	0.0	0	0.2	2	0.1	1	0.7	7	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	3	0.0	0	0.1	2	0.0	1	0.6	13
>50	0.6	10	0.0	0	0.0	0	0.2	1	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	1.6	21	0.2	3	0.0	1	0.0	0	0.2	5
	100.0	1248	100.0	1006	100.0	975	100.0	966	100.0	1019	100.0	663	100.0	776	100.0	758	100.0	870	100.0	981	100.0	1526	100.0	1591	100.0	1682	100.0	1590	100.0	1746

Table 2. (continued)

Quintile Group	LU					NL					PT				
	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>
median [%]	0.5	6.6	10.8	17.9	28.3	7.6	16.6	25.0	28.5	31.6	0.0	7.3	13.3	16.6	25.0
mean [%]	-11.2	3.5	9.0	17.3	30.3	-8.1	16.3	23.9	27.3	33.8	-3.2	7.0	12.7	16.0	26.6
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=100	6.6 28	0.3 2	0.0 0	0.0 0	0.0 0	26.5 250	4.5 42	0.5 2	0.0 0	0.0 0	7.7 116	1.5 4	0.0 0	0.4 2	0.0 1
-100 to -50	6.2 33	1.4 7	0.2 2	0.0 0	0.0 0	4.7 48	0.7 8	0.3 1	0.0 0	0.0 0	2.8 41	0.1 2	0.2 3	0.1 1	0.3 3
-50 to -40	3.3 17	1.0 6	0.0 0	0.0 0	0.0 0	1.3 15	0.4 3	0.1 1	0.0 0	0.0 0	1.5 23	0.1 2	0.5 1	0.0 0	0.0 0
-40 to -30	3.2 14	2.3 11	0.3 3	0.0 0	0.0 0	0.6 8	0.1 1	0.0 0	0.0 0	0.0 0	1.0 17	0.1 1	0.2 1	0.2 2	0.2 1
-30 to -20	5.5 25	2.6 16	1.3 7	0.1 1	0.1 1	0.8 11	0.4 4	0.0 0	0.0 0	0.0 0	2.3 31	0.5 4	0.0 1	0.0 0	0.0 0
-20 to -10	9.0 33	3.6 22	4.0 21	1.5 7	0.0 0	2.5 25	1.5 13	0.0 0	0.0 0	0.0 0	4.3 70	0.6 5	0.1 1	0.0 1	0.1 1
-10 to 0	14.5 64	8.0 39	7.0 43	2.1 11	0.4 2	4.3 49	5.5 38	0.2 3	0.2 1	0.1 1	9.4 108	4.6 23	2.0 14	1.2 10	0.0 0
0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	1.0 10	0.1 1	0.0 0	0.0 0	0.0 0	35.8 534	19.7 188	9.8 71	3.8 34	0.1 1
0 to 5	18.1 70	23.6 100	6.8 31	3.8 20	0.1 1	4.3 47	3.1 23	1.3 5	0.2 2	0.1 1	9.9 147	14.1 119	7.5 59	8.9 66	3.0 26
5 to 10	17.4 79	33.5 163	24.2 107	5.5 28	1.3 6	8.7 84	8.8 70	5.0 45	0.2 1	0.3 4	4.9 96	20.9 180	12.4 115	8.6 59	5.4 36
10 to 15	12.6 84	11.9 67	36.9 179	16.4 85	1.2 8	21.0 216	13.9 123	5.9 55	10.7 96	2.3 25	7.1 82	21.3 220	31.9 305	15.2 121	7.1 57
15 to 20	2.0 9	9.2 58	11.2 77	34.6 177	7.7 41	12.2 122	20.9 188	13.9 110	2.7 26	3.5 34	5.6 62	12.6 118	28.8 251	38.3 351	10.8 99
20 to 25	1.1 6	2.3 13	6.4 34	21.1 113	22.3 125	7.2 75	19.4 204	22.6 196	13.3 116	8.3 84	3.1 42	3.5 37	6.1 61	19.6 201	22.9 153
25 to 30	0.2 1	0.2 1	1.3 8	12.6 60	24.5 132	4.0 38	17.2 145	32.9 254	37.0 321	23.1 237	1.9 28	0.5 6	0.6 7	3.6 23	22.8 163
30 to 35	0.0 0	0.0 0	0.1 1	1.4 8	23.8 130	0.4 6	3.4 27	15.7 120	32.2 270	36.3 364	1.3 18	0.0 0	0.0 0	0.1 1	22.6 135
35 to 40	0.3 1	0.0 0	0.0 0	0.4 2	12.2 62	0.1 2	0.2 2	1.4 10	3.0 26	15.2 146	0.8 9	0.0 0	0.0 0	0.0 0	4.3 27
40 to 45	0.0 0	0.0 0	0.3 1	0.5 3	5.1 26	0.0 0	0.0 0	0.0 0	0.1 1	7.1 67	0.1 1	0.0 0	0.0 0	0.0 0	0.5 2
45 to 50	0.0 0	0.0 0	0.0 0	0.0 0	1.4 7	0.1 1	0.0 0	0.1 1	0.3 3	2.2 22	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>50	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.3 3	0.0 0	0.0 0	0.0 0	1.4 15	0.4 5	0.0 0	0.0 0	0.0 0	0.0 0
	100.0 464	100.0 505	100.0 514	100.0 515	100.0 541	100.0 1010	100.0 892	100.0 803	100.0 863	100.0 1000	100.0 1430	100.0 909	100.0 890	100.0 872	100.0 705

Table 2. (continued)

Quintile Group	SP					UK				
	<1>	<2>	<3>	<4>	<5>	<1>	<2>	<3>	<4>	<5>
median [%]	0.0	3.5	10.0	14.9	20.6	-47.6	-2.5	14.5	20.2	24.5
mean [%]	3.9	7.6	11.3	15.6	23.4	-84.4	-16.8	8.2	17.7	25.0
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<= -100	2.1 30	0.2 2	0.0 0	0.0 0	0.0 0	43.6 586	17.5 249	9.1 115	3.5 40	0.1 1
-100 to -50	1.1 10	0.1 1	0.1 1	0.2 2	0.0 0	5.7 75	12.8 183	3.2 40	0.3 4	0.0 0
-50 to -40	0.2 2	0.1 1	0.0 0	0.0 0	0.0 0	1.8 24	4.0 57	1.0 12	0.1 1	0.1 1
-40 to -30	0.4 5	0.1 1	0.0 0	0.1 1	0.0 0	4.0 55	4.0 57	0.6 8	0.4 5	0.0 0
-30 to -20	1.5 17	0.1 3	0.0 0	0.0 0	0.0 0	2.5 31	4.1 60	1.6 21	0.3 4	0.0 0
-20 to -10	1.9 22	0.6 6	0.2 4	0.2 1	0.1 1	5.2 71	3.6 52	1.6 20	0.4 5	0.1 1
-10 to 0	12.6 158	1.7 21	0.6 9	0.5 6	0.0 0	7.4 106	5.2 75	3.7 44	1.7 22	0.2 3
0	37.7 422	36.9 475	16.2 167	0.7 6	0.0 0	0.7 8	0.0 0	0.0 0	0.1 1	0.0 0
0 to 5	15.3 184	15.6 217	8.3 95	1.9 26	0.0 0	12.3 170	4.6 66	3.8 49	1.3 17	0.7 11
5 to 10	11.8 152	19.3 276	24.8 303	12.4 145	1.2 17	10.2 143	14.9 228	8.3 111	4.0 54	0.3 5
10 to 15	4.0 42	13.3 186	26.3 312	34.6 398	12.2 151	3.9 54	15.3 236	19.3 258	8.1 111	2.5 35
15 to 20	3.1 38	5.8 83	15.1 182	30.9 372	31.9 403	1.5 21	8.2 132	26.6 366	28.4 385	10.2 144
20 to 25	2.9 34	5.5 73	7.5 91	16.3 184	33.1 423	0.9 12	5.2 72	18.6 238	39.6 516	42.8 596
25 to 30	2.4 23	0.5 9	0.5 7	2.0 27	13.6 164	0.1 1	0.5 7	2.6 30	11.7 129	35.9 464
30 to 35	1.0 13	0.1 1	0.2 2	0.0 0	4.9 49	0.0 0	0.0 0	0.0 0	0.2 2	6.2 81
35 to 40	0.6 10	0.0 0	0.0 0	0.0 0	2.0 22	0.1 1	0.0 0	0.0 0	0.0 0	0.9 13
40 to 45	0.8 11	0.0 0	0.0 0	0.0 0	0.8 9	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
45 to 50	0.5 5	0.0 0	0.0 0	0.0 0	0.1 1	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>50	0.3 4	0.0 0	0.0 0	0.0 0	0.1 1	0.1 2	0.0 0	0.0 0	0.0 0	0.0 0
	100.0 1182	100.0 1355	100.0 1173	100.0 1168	100.0 1241	100.0 1360	100.0 1474	100.0 1312	100.0 1296	100.0 1355

Table 3. Distribution of Household AETRs: by Status of Head of Household

	AT		BE		DK		FI		FR		GE		GR	
	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired
median [%]	24.5	10.9	26.3	5.1	38.7	18.6	27.4	0.0	22.6	12.5	29.8	7.5	20.5	2.4
mean [%]	25.5	13.7	27.0	14.1	40.3	19.1	27.5	5.5	22.0	12.7	30.3	6.4	24.9	2.0
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	0.6 16	0.6 3	3.5 46	4.2 37	0.4 8	0.6 4	0.7 5	18.2 212	1.0 74	1.4 33	1.8 78	1.4 26	0.0 2	20.8 247
-100 to -50	1.0 18	4.0 20	1.2 18	1.0 9	0.2 4	0.3 2	1.0 65	9.8 123	1.9 145	1.4 37	0.9 62	2.3 31	0.3 13	3.8 51
-50 to -40	0.2 6	1.2 10	0.3 4	0.2 3	0.0 0	0.5 2	0.4 27	3.0 44	0.6 46	0.9 22	0.4 21	0.9 7	0.2 9	0.9 11
-40 to -30	0.4 10	1.8 15	0.6 8	0.8 6	0.3 3	0.1 1	0.7 50	3.4 44	0.9 64	1.4 39	0.6 22	1.4 22	0.2 10	2.3 29
-30 to -20	1.5 29	1.8 14	1.2 18	0.7 7	0.2 4	0.9 5	1.0 67	3.6 49	1.3 101	2.0 49	0.6 38	0.6 14	0.3 14	2.6 30
-20 to -10	2.6 54	3.3 23	1.4 20	2.6 17	0.3 7	1.3 9	1.8 123	5.8 82	2.5 192	4.5 115	1.1 75	1.7 36	0.6 26	5.3 69
-10 to 0	2.9 63	3.4 27	3.0 47	4.0 30	0.6 11	4.2 26	3.1 214	6.2 101	4.7 344	7.2 181	1.4 104	4.9 81	2.1 82	11.5 134
0	0.0 0	0.1 1	0.1 1	15.4 116	0.0 0	0.1 2	0.0 0	0.1 1	0.0 0	0.0 0	0.4 9	1.2 19	0.1 4	0.2 3
0 to 5	3.3 67	21.6 169	2.9 42	20.7 172	0.6 10	6.8 45	2.8 190	3.7 61	3.5 268	9.5 248	1.6 95	9.0 150	3.9 146	27.1 267
5 to 10	3.7 76	8.9 69	3.7 60	13.6 125	0.5 10	10.2 69	3.8 268	3.8 71	5.1 388	12.5 327	4.0 203	70.2 1174	5.9 238	16.4 171
10 to 15	6.6 142	17.8 150	5.9 99	8.8 81	0.6 17	12.1 88	5.1 367	5.4 101	7.0 514	20.7 531	5.1 302	3.2 50	11.3 400	4.9 53
15 to 20	11.0 207	16.9 129	10.6 167	8.5 69	1.6 32	18.2 136	7.9 582	7.2 134	12.5 928	21.7 562	9.3 484	1.9 27	22.2 726	2.2 23
20 to 25	17.6 337	10.4 72	12.3 212	5.6 50	4.0 84	19.5 162	12.9 927	10.0 220	21.2 1556	12.7 317	11.4 624	0.7 13	18.0 595	0.6 9
25 to 30	21.8 370	5.7 38	15.1 254	5.4 49	5.6 115	17.4 173	20.5 1411	10.8 242	26.3 1858	3.5 90	11.7 728	0.4 2	13.5 422	0.5 5
30 to 35	15.9 249	2.1 12	16.0 273	2.8 24	14.8 312	5.3 45	21.5 1482	5.9 153	9.2 620	0.5 14	15.5 905	0.1 2	11.7 371	0.7 8
35 to 40	7.7 114	0.4 4	12.5 227	1.4 14	28.4 596	1.6 11	11.1 924	2.0 52	1.8 125	0.1 2	17.5 903	0.0 0	6.7 198	0.1 1
40 to 45	2.2 29	0.1 1	6.0 110	1.0 10	29.2 610	0.5 4	3.9 394	1.0 21	0.4 25	0.0 1	12.4 497	0.2 1	2.1 64	0.0 0
45 to 50	1.0 8	0.0 0	1.5 26	0.4 4	9.0 177	0.1 1	1.0 139	0.2 5	0.1 5	0.0 0	3.7 110	0.0 0	0.4 13	0.0 0
>50	0.0 0	0.0 0	2.1 32	2.8 22	3.7 72	0.4 2	0.6 84	0.0 2	0.1 4	0.0 1	0.3 9	0.0 0	0.3 10	0.1 1
	100.0 1795	100.0 757	100.0 1664	100.0 845	100.0 2072	100.0 787	100.0 7365	100.0 1718	100.0 7257	100.0 2569	100.0 5269	100.0 1655	100.0 3343	100.0 1112

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. Modal values are shown in **bold** typeface.

Table 3. (continued)

	IR		IT		LU		NL		PT		SP		UK	
	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired	"active"	retired
median [%]	15.0	0.0	24.8	10.0	15.7	9.1	27.3	14.0	15.9	0.0	16.3	0.0	20.8	4.9
mean [%]	17.6	4.7	27.4	12.8	19.5	15.5	28.6	19.4	20.9	4.6	19.5	8.5	20.3	-0.2
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	1.6 36	1.2 8	0.1 7	2.1 51	0.2 4	0.4 3	2.7 66	1.5 14	1.8 62	0.3 7	0.0 1	0.1 1	3.1 134	7.9 119
-100 to -50	0.9 21	1.4 8	0.3 25	2.4 50	1.2 23	1.1 7	0.8 25	0.1 1	0.7 29	0.5 15	0.2 4	0.0 1	1.5 62	9.8 151
-50 to -40	0.7 19	2.0 13	0.5 12	0.7 27	0.9 18	0.5 3	0.3 10	0.0 0	0.5 17	0.3 5	0.1 2	0.1 1	0.5 20	3.3 52
-40 to -30	0.7 23	0.7 4	0.6 26	0.7 23	1.3 23	0.6 3	0.2 6	0.0 0	0.3 14	0.1 2	0.1 3	0.1 1	0.8 31	4.2 67
-30 to -20	1.4 40	0.4 3	0.4 29	1.2 29	2.3 44	0.7 3	0.3 10	0.0 0	0.6 21	0.7 10	0.1 5	0.2 2	0.7 30	3.7 59
-20 to -10	2.5 71	1.1 5	1.3 60	2.3 60	3.7 64	3.4 15	0.7 23	0.3 4	0.7 42	1.8 23	0.4 14	0.3 3	1.3 53	4.5 70
-10 to 0	5.8 169	2.4 15	2.4 134	7.7 208	7.2 131	3.4 17	1.3 42	3.7 34	2.3 86	5.0 43	1.6 53	1.8 31	2.9 114	6.1 98
0	1.5 42	65.9 317	0.0 0	2.1 46	0.0 0	0.0 0	0.1 3	0.1 1	0.0 0	59.1 767	0.0 0	47.5 573	0.1 3	0.0 0
0 to 5	7.5 249	6.4 33	2.2 127	16.8 367	6.5 110	19.1 93	0.8 25	4.3 40	5.2 192	18.9 199	4.3 171	12.3 155	2.2 89	10.6 169
5 to 10	10.5 348	4.2 24	3.2 161	13.6 364	10.6 191	29.3 153	1.8 55	12.8 130	11.5 418	6.2 51	13.1 496	15.8 202	3.7 154	19.7 322
10 to 15	17.0 526	7.7 30	6.2 315	16.0 445	14.0 285	19.0 103	3.2 105	34.5 376	20.0 726	4.3 36	23.3 817	12.5 164	8.4 352	17.8 288
15 to 20	18.9 553	3.7 21	12.0 643	22.9 585	15.0 302	9.6 51	7.4 253	20.1 200	24.8 838	1.4 28	25.9 928	6.9 91	20.0 847	9.7 156
20 to 25	12.4 327	1.4 8	22.3 1143	8.8 238	13.7 256	5.9 33	17.7 566	7.4 82	14.9 484	0.8 8	20.9 736	2.2 25	35.0 1382	2.4 39
25 to 30	9.6 222	0.9 7	24.7 1279	1.9 69	10.4 181	3.6 19	29.1 861	8.2 75	8.2 217	0.4 6	6.2 215	0.2 2	17.2 622	0.2 4
30 to 35	6.9 142	0.5 4	14.6 741	0.5 19	7.1 128	2.0 11	24.6 716	3.9 42	6.6 150	0.1 2	2.1 63	0.1 1	2.2 81	0.1 1
35 to 40	2.1 40	0.3 2	6.6 329	0.1 5	3.9 63	0.3 2	5.4 159	2.2 18	1.5 35	0.0 1	0.9 32	0.0 0	0.3 14	0.0 0
40 to 45	0.1 3	0.0 0	2.1 110	0.0 0	1.5 26	0.9 4	2.2 61	0.4 5	0.2 3	0.0 0	0.5 18	0.0 0	0.0 0	0.0 0
45 to 50	0.0 0	0.0 0	0.2 17	0.0 1	0.4 6	0.1 1	0.7 21	0.4 4	0.0 0	0.0 0	0.2 6	0.0 0	0.0 0	0.0 0
>50	0.0 0	0.0 0	0.4 17	0.0 0	0.0 0	0.0 0	0.4 14	0.2 2	0.1 5	0.0 0	0.0 2	0.0 0	0.0 1	0.0 0
	100.0 2831	100.0 502	100.0 5175	100.0 2587	100.0 1855	100.0 521	100.0 3021	100.0 1028	100.0 3339	100.0 1203	100.0 3566	100.0 1253	100.0 3989	100.0 1595

Table 4. Distribution of Household AETRs: by Age of Head of Household

	AT				BE				DK				FI			
	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65
median [%]	16.5	21.9	24.5	10.3	9.0	22.9	21.8	4.7	27.1	36.1	38.0	20.7	-14.6	21.5	26.7	-3.0
mean [%]	17.4	22.2	26.3	13.1	9.8	23.5	24.8	14.0	31.7	37.1	39.9	23.4	-6.5	20.1	27.8	4.8
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	1.4 3	1.8 20	1.2 20	1.5 7	15.7 8	5.1 38	6.6 68	4.6 36	18.5 37	3.5 27	1.0 11	0.0 0	26.3 118	5.4 98	3.6 105	18.9 153
-100 to -50	5.3 5	1.8 16	1.4 14	3.9 14	2.2 2	1.3 11	2.2 23	0.8 5	4.7 11	1.4 13	0.2 2	0.1 1	12.4 60	2.7 59	1.7 59	11.1 101
-50 to -40	0.2 1	0.3 4	0.6 8	1.0 4	0.0 0	0.6 6	0.9 10	0.1 1	1.9 5	0.3 3	0.3 2	0.0 0	2.3 13	1.4 30	0.4 16	3.4 35
-40 to -30	1.4 2	0.8 7	0.5 6	2.5 14	0.0 0	1.6 13	1.3 14	0.8 5	3.1 6	1.1 7	0.0 0	0.1 1	3.3 16	2.0 45	1.4 46	3.4 31
-30 to -20	2.6 7	2.1 15	1.1 15	1.7 10	2.5 1	1.4 11	1.4 19	0.7 5	2.2 5	0.7 6	1.1 10	0.0 0	3.7 18	2.2 52	1.2 49	3.6 35
-20 to -10	2.0 5	3.2 32	2.2 26	3.4 18	5.5 2	3.1 26	2.0 20	2.4 15	2.3 7	1.4 13	0.5 7	1.0 5	4.7 24	2.8 76	2.5 95	5.9 60
-10 to 0	3.8 6	4.5 39	2.3 32	2.9 19	4.3 3	4.6 37	2.8 32	3.5 20	1.7 5	1.8 15	0.5 5	3.4 19	5.4 28	5.7 154	3.3 137	6.1 72
0	5.9 5	0.2 2	1.0 9	0.1 1	0.0 0	1.1 5	3.3 38	16.6 101	0.0 0	0.1 1	0.1 1	0.2 2	0.0 0	0.0 0	0.1 1	0.0 0
0 to 5	4.6 7	3.9 37	5.2 68	22.9 137	7.3 3	3.4 30	6.7 67	21.9 150	2.0 6	1.9 14	1.9 21	4.3 26	5.6 25	3.5 107	2.6 120	3.7 42
5 to 10	6.6 9	3.8 36	3.8 54	9.1 49	12.1 4	4.0 38	6.2 70	13.4 102	0.6 2	1.2 10	2.1 26	8.9 51	3.3 20	5.3 170	2.8 138	4.3 50
10 to 15	11.7 17	7.9 73	7.1 100	17.3 112	7.7 5	5.9 52	6.0 73	8.4 65	1.0 4	1.4 17	1.4 16	12.3 78	3.8 22	6.2 203	5.0 224	4.9 69
15 to 20	14.6 22	13.3 102	10.0 134	15.7 84	12.2 7	10.8 96	7.5 85	8.8 56	3.7 9	2.7 25	4.2 53	16.5 105	6.0 39	9.0 291	7.4 371	7.2 93
20 to 25	17.7 35	18.8 155	15.3 179	8.9 48	7.1 4	12.2 120	9.6 115	4.9 36	5.2 14	4.8 47	4.5 59	20.4 145	7.2 49	12.6 380	12.3 656	9.9 153
25 to 30	11.6 27	19.7 135	20.1 218	6.0 32	8.5 4	14.9 134	11.0 137	5.0 38	9.2 22	6.1 62	5.9 78	19.3 164	11.1 61	16.5 459	18.8 1055	9.3 142
30 to 35	10.4 11	11.3 74	16.0 167	2.4 10	6.3 4	13.3 121	12.9 161	2.5 19	9.3 27	15.7 165	13.6 177	6.8 52	3.8 27	15.0 444	20.2 1097	5.0 84
35 to 40	0.2 1	4.6 30	8.8 83	0.5 4	3.0 3	11.1 105	9.5 128	1.0 8	16.6 44	25.6 261	23.3 307	2.9 20	0.6 4	6.9 219	10.8 724	1.9 36
40 to 45	0.0 0	1.6 11	2.3 18	0.1 1	1.4 1	2.7 28	6.3 83	1.1 9	13.3 32	22.1 214	26.4 356	2.6 17	0.3 3	2.0 82	4.1 319	1.1 14
45 to 50	0.0 0	0.5 3	1.2 5	0.0 0	0.7 1	1.2 10	1.3 18	0.3 2	2.3 5	6.4 60	8.6 109	0.9 6	0.1 2	0.4 21	1.1 115	0.3 6
>50	0.0 0	0.0 0	0.0 0	0.0 0	3.5 1	1.9 18	2.7 29	3.1 19	2.5 5	2.1 22	4.4 53	0.3 2	0.1 1	0.2 19	0.7 65	0.0 3
	100.0 163	100.0 791	100.0 1156	100.0 564	100.0 53	100.0 899	100.0 1190	100.0 692	100.0 246	100.0 982	100.0 1293	100.0 694	100.0 530	100.0 2909	100.0 5392	100.0 1179

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. Modal values are shown in **bold** typeface.

Table 4. (continued)

	FR				GE				GR				IR			
	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65	<25	25 to 39	40 to 64	>65
median [%]	1.8	19.6	21.3	11.2	5.9	27.2	24.0	7.5	0.8	19.5	18.6	-1.7	5.1	13.1	10.2	0.0
mean [%]	4.1	17.8	21.4	11.1	7.2	26.6	27.5	6.0	10.7	22.9	24.1	3.0	4.2	14.7	14.9	3.5
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	10.0 57	3.9 127	3.2 150	2.3 55	22.6 68	8.6 187	6.4 131	1.5 20	2.4 4	0.7 7	1.7 33	18.9 250	11.4 15	7.7 57	6.3 76	1.1 10
-100 to -50	6.1 36	3.1 109	2.6 126	2.9 74	8.4 26	2.1 67	1.5 46	1.8 17	2.1 3	0.3 5	0.6 15	3.6 54	3.3 10	0.8 10	2.0 30	1.8 15
-50 to -40	2.3 11	0.9 31	0.8 38	1.4 35	4.7 8	0.5 14	0.2 13	1.0 6	0.4 1	0.2 3	0.2 7	0.8 11	1.7 5	1.1 14	0.6 12	1.3 14
-40 to -30	3.5 21	1.2 39	1.2 57	1.5 39	4.3 9	0.8 18	0.8 19	1.2 15	0.0 0	0.3 3	0.4 11	2.7 37	2.4 7	0.7 11	1.7 22	0.5 3
-30 to -20	7.9 44	1.7 62	1.6 71	2.4 60	2.6 9	1.3 42	0.5 18	0.6 10	0.5 1	0.6 7	0.5 16	2.4 31	3.2 11	3.3 35	2.7 41	0.5 3
-20 to -10	8.7 48	3.1 109	3.0 140	5.3 130	1.0 5	2.4 70	1.6 62	1.6 27	0.7 1	1.1 15	1.4 38	6.2 86	6.0 18	7.6 85	4.1 67	0.9 9
-10 to 0	10.4 55	6.0 204	4.4 212	8.7 214	2.6 12	2.7 91	2.4 80	4.6 60	14.7 28	3.4 50	5.1 119	16.1 202	9.0 30	7.3 82	7.6 131	1.3 16
0	0.2 1	0.0 0	0.0 0	0.0 0	1.5 6	0.3 11	2.3 49	1.4 16	24.7 45	2.1 37	2.0 53	0.9 12	3.7 8	1.9 17	9.0 108	70.4 468
0 to 5	3.4 19	4.2 150	3.7 185	10.5 268	2.2 10	2.2 62	3.1 110	8.6 107	13.2 25	5.0 77	9.8 203	23.6 267	8.3 32	4.3 65	7.5 161	6.6 57
5 to 10	6.6 41	6.1 217	5.3 264	11.8 301	3.0 12	4.7 110	11.5 367	71.2 936	6.1 10	5.4 84	9.0 231	14.4 172	11.0 36	6.8 105	8.3 194	4.4 47
10 to 15	5.7 34	7.8 272	7.9 375	19.4 488	5.5 18	4.7 138	4.3 176	2.9 37	8.5 22	11.8 181	9.3 222	3.7 50	13.5 46	14.1 211	13.0 269	6.6 45
15 to 20	8.2 50	13.5 472	12.4 606	18.4 466	8.4 34	6.5 185	8.6 288	1.8 22	15.1 31	22.4 302	16.2 393	2.9 39	13.7 45	17.5 245	13.0 271	2.2 17
20 to 25	12.8 72	18.6 648	19.3 941	11.1 274	8.6 34	9.7 273	8.8 322	1.0 15	6.5 16	19.2 262	12.9 314	1.4 24	8.4 24	9.6 123	10.0 182	1.3 12
25 to 30	12.9 80	22.0 723	23.0 1094	3.5 88	8.5 31	8.3 292	10.4 418	0.5 3	2.9 7	11.4 164	11.7 251	0.8 11	2.7 5	9.4 107	6.8 111	0.5 7
30 to 35	1.5 9	6.6 201	9.1 418	0.6 15	6.3 28	13.9 388	11.9 497	0.1 2	1.8 4	10.6 140	9.5 220	1.1 18	1.6 2	6.5 73	5.1 69	0.2 2
35 to 40	0.0 0	1.2 38	1.9 89	0.1 2	7.2 28	16.1 425	13.0 456	0.2 2	0.5 1	4.6 58	6.4 136	0.4 6	0.0 0	1.5 14	2.0 25	0.3 3
40 to 45	0.0 0	0.2 3	0.5 22	0.0 1	2.2 9	11.7 253	9.4 238	0.0 0	0.0 0	0.8 10	2.4 53	0.0 1	0.0 0	0.0 0	0.2 3	0.0 0
45 to 50	0.0 0	0.0 1	0.1 4	0.0 0	0.0 0	3.4 58	2.9 52	0.0 0	0.0 0	0.3 6	0.4 7	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>50	0.0 0	0.0 0	0.2 5	0.0 0	0.4 1	0.0 1	0.4 7	0.0 0	0.0 0	0.0 1	0.4 10	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
	100.0 578	100.0 3406	100.0 4797	100.0 2510	100.0 348	100.0 2685	100.0 3349	100.0 1295	100.0 199	100.0 1412	100.0 2332	100.0 1271	100.0 294	100.0 1254	100.0 1772	100.0 728

Table 4. (continued)

	IT								LU								NL								PT							
	<25		25 to 39		40 to 64		>65		<25		25 to 39		40 to 64		>65		<25		25 to 39		40 to 64		>65		<25		25 to 39		40 to 64		>65	
median [%]	19.6		23.4		23.4		10.0		11.8		14.8		13.5		9.2		-56.3		26.7		27.2		13.2		12.1		15.1		15.8		0.0	
mean [%]	20.9		25.7		26.6		14.3		11.6		16.6		20.0		15.6		3.0		26.3		28.7		17.1		12.9		19.2		21.3		8.1	
AETR band [%]	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.		
<=-100	0.3	1	0.5	8	0.4	18	2.3	44	0.0	0	0.7	6	2.4	22	0.4	2	38.1	95	6.0	95	6.2	104	0.0	0	2.6	4	2.5	36	2.9	74	0.3	9
-100 to -50	0.5	2	0.8	21	0.8	23	2.7	44	0.8	1	2.1	21	1.6	18	0.5	2	13.2	36	0.6	13	0.4	6	0.2	2	0.2	1	0.4	10	1.1	24	0.8	15
-50 to -40	1.3	1	1.0	11	0.3	13	0.7	22	0.6	1	1.7	16	0.3	4	0.4	2	2.7	7	0.4	8	0.2	4	0.0	0	0.3	3	0.6	8	0.4	10	0.3	5
-40 to -30	0.1	1	0.7	16	0.8	27	0.6	13	0.5	1	2.0	16	1.0	10	0.2	1	1.0	4	0.1	3	0.1	2	0.0	0	0.3	1	0.3	5	0.5	13	0.2	3
-30 to -20	0.4	2	0.8	20	0.6	26	1.2	20	2.3	4	2.8	27	1.7	17	0.6	2	1.7	7	0.2	4	0.2	4	0.0	0	0.3	4	0.5	10	0.9	12	0.4	10
-20 to -10	1.1	3	1.6	35	1.9	68	1.9	34	3.5	6	4.9	42	2.6	25	3.3	10	2.7	7	0.8	11	0.8	15	0.5	5	1.5	2	0.9	18	1.1	36	1.4	22
-10 to 0	1.0	6	2.4	57	3.8	141	7.3	155	3.4	5	8.5	82	6.2	58	3.3	14	2.4	8	1.4	21	1.2	24	5.0	39	3.0	7	2.8	36	3.9	70	4.4	42
0	0.2	1	0.4	9	1.0	28	1.7	32	0.0	0	0.0	0	0.0	0	0.0	0	1.3	4	0.1	2	0.3	5	0.0	0	0.0	0	0.1	4	4.6	91	53.1	733
0 to 5	3.7	14	2.1	60	4.6	164	17.5	284	8.6	11	6.0	55	8.7	76	19.5	80	0.9	3	0.7	13	1.3	21	4.9	41	10.7	29	5.9	75	5.4	116	17.5	197
5 to 10	6.4	18	3.7	80	4.7	168	13.9	290	14.6	18	9.5	89	14.1	148	30.0	128	2.3	7	1.6	23	1.7	32	15.3	142	19.7	60	13.4	166	8.7	191	6.5	69
10 to 15	7.7	22	7.5	147	7.8	303	15.7	331	33.4	46	12.8	147	14.9	150	18.3	80	3.5	11	2.6	47	3.6	68	39.5	389	31.1	74	20.4	261	16.4	379	6.1	71
15 to 20	32.9	75	14.4	315	11.8	468	22.1	435	19.1	30	14.0	157	13.1	130	10.4	45	1.4	3	8.3	135	7.3	144	22.5	198	20.6	53	25.1	300	21.6	459	4.5	69
20 to 25	26.5	68	21.7	476	18.9	710	8.5	170	8.9	10	13.7	139	11.3	112	6.3	30	9.5	29	19.5	301	13.8	290	5.7	55	8.6	16	13.4	168	14.5	282	2.3	28
25 to 30	13.7	34	21.4	430	21.9	854	2.1	57	3.8	3	10.6	99	9.3	87	2.9	13	13.0	36	29.2	423	27.7	506	3.3	30	0.5	2	7.2	73	8.5	136	1.1	16
30 to 35	3.0	12	13.3	269	12.2	460	1.0	23	0.0	0	6.9	66	6.3	62	2.3	11	3.8	13	22.8	330	24.5	435	0.9	9	0.5	1	5.3	41	7.5	103	0.8	9
35 to 40	0.3	1	5.1	104	6.1	220	0.4	10	0.0	0	2.4	22	4.4	40	0.6	3	1.5	4	3.7	53	6.6	123	1.3	6	0.0	0	1.2	9	1.5	25	0.2	2
40 to 45	0.2	1	1.7	37	1.9	70	0.2	4	0.5	1	1.1	11	1.7	15	0.7	3	0.0	0	1.3	14	2.5	46	0.7	8	0.0	0	0.0	1	0.3	2	0.0	0
45 to 50	0.0	0	0.1	6	0.3	12	0.1	1	0.0	0	0.2	2	0.4	4	0.1	1	0.6	1	0.3	4	1.1	21	0.1	1	0.0	0	0.0	0	0.0	0	0.0	0
>50	1.0	1	0.8	15	0.4	14	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.3	1	0.3	6	0.6	10	0.1	1	0.0	0	0.0	0	0.1	3	0.2	2
	100.0	263	100.0	2116	100.0	3787	100.0	1969	100.0	137	100.0	997	100.0	978	100.0	427	100.0	276	100.0	1506	100.0	1860	100.0	926	100.0	257	100.0	1221	100.0	2026	100.0	1302

Table 4. (continued)

	SP								UK							
	<25		25 to 39		40 to 64		>65		<25		25 to 39		40 to 64		>65	
median [%]	8.3		14.6		14.5		0.0		1.6		19.4		17.8		4.7	
mean [%]	12.6		17.0		18.9		8.4		-2.9		13.8		16.3		0.4	
AETR band [%]	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.	Frequ. no. [%]	Obs.
<=-100	0.9	1	0.5	11	0.4	16	0.4	4	31.3	125	19.2	413	12.9	337	7.6	116
-100 to -50	0.0	0	0.3	3	0.4	9	0.1	2	4.4	15	2.5	52	2.6	69	10.6	166
-50 to -40	0.0	0	0.2	2	0.0	0	0.0	1	1.6	6	0.5	10	1.1	29	3.1	50
-40 to -30	0.3	1	0.1	1	0.1	4	0.1	1	1.9	7	0.8	18	1.3	36	4.0	64
-30 to -20	0.4	1	0.4	5	0.3	11	0.2	3	2.0	7	0.8	16	1.1	26	4.1	67
-20 to -10	0.7	3	0.9	11	0.7	16	0.2	4	1.6	6	1.3	27	1.4	39	4.9	77
-10 to 0	1.9	3	4.3	62	2.8	83	2.2	46	4.4	15	3.0	65	2.6	69	6.2	101
0	7.9	8	0.9	13	6.9	173	55.7	876	1.5	5	0.1	1	0.1	3	0.0	0
0 to 5	17.2	20	6.5	126	8.0	206	10.3	170	2.9	10	1.3	30	3.8	100	10.6	173
5 to 10	27.3	38	15.6	259	12.9	367	13.3	229	2.2	8	2.6	55	5.4	150	19.6	328
10 to 15	15.6	20	23.3	390	20.0	519	9.2	160	6.4	25	6.0	138	8.6	237	17.6	294
15 to 20	12.6	16	23.4	393	20.7	571	5.6	98	11.7	47	14.2	330	18.9	522	9.0	149
20 to 25	9.8	11	16.8	284	17.8	472	2.1	38	20.1	78	28.7	596	27.1	726	2.0	34
25 to 30	4.9	4	4.8	71	5.3	144	0.5	11	7.7	24	17.2	308	11.0	290	0.5	9
30 to 35	0.5	1	1.3	18	1.9	44	0.2	2	0.0	0	1.7	33	1.8	46	0.2	4
35 to 40	0.0	0	0.2	3	1.0	28	0.0	1	0.0	0	0.2	4	0.3	10	0.0	0
40 to 45	0.0	0	0.3	6	0.5	12	0.1	2	0.0	0	0.0	0	0.0	0	0.0	0
45 to 50	0.0	0	0.1	2	0.2	4	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
>50	0.0	0	0.1	3	0.1	2	0.0	0	0.2	1	0.0	0	0.0	1	0.0	0
	100.0	127	100.0	1663	100.0	2681	100.0	1648	100.0	379	100.0	2096	100.0	2690	100.0	1632

Table 5. Distribution of Household AETRs: by Family Structure

	AT					BE					DK				
	Children	Single Parent HH	Two Parent HH	No Chldrn; Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn; Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn; Head not retired	No Children
median [%]	18.1	3.1	20.6	26.8	20.6	19.1	-5.7	21.3	26.5	15.3	35.4	18.2	36.7	39.1	32.2
mean [%]	20.0	6.3	21.8	28.3	24.5	20.8	-3.6	22.9	27.9	23.5	35.9	15.8	37.7	41.6	37.9
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<= -100	2.3 30	5.3 11	1.7 19	1.4 17	1.1 20	5.2 42	17.7 23	2.9 19	7.6 72	6.0 108	2.5 18	6.9 10	1.6 8	4.6 53	3.2 57
-100 to -50	1.8 18	5.6 11	1.0 7	1.6 13	2.5 31	2.7 25	6.1 10	2.1 15	1.0 8	1.0 16	1.1 10	2.0 4	0.9 6	1.2 16	0.8 17
-50 to -40	0.7 8	1.9 4	0.5 4	0.1 2	0.5 9	1.4 12	3.9 6	1.0 6	0.2 3	0.2 5	0.3 2	1.4 2	0.0 0	0.5 7	0.4 8
-40 to -30	1.1 11	2.9 4	0.8 7	0.5 4	1.0 18	1.9 17	2.3 3	1.8 14	1.0 9	0.9 15	1.0 7	3.3 4	0.5 3	0.6 6	0.4 7
-30 to -20	2.8 29	8.9 10	1.5 19	0.6 5	1.1 18	2.1 19	5.6 8	1.5 11	0.9 10	0.8 17	1.6 13	5.5 9	0.7 4	0.5 6	0.5 8
-20 to -10	4.2 45	8.4 16	3.3 29	1.3 14	2.1 36	4.9 39	9.1 11	4.2 28	0.8 9	1.5 24	1.8 18	7.4 13	0.6 5	0.5 8	0.7 14
-10 to 0	6.3 62	12.8 20	4.9 42	1.0 11	1.8 34	6.2 51	13.4 16	4.9 35	1.1 14	2.4 41	1.6 15	5.5 11	0.8 4	0.3 5	1.6 29
0	0.0 0	0.0 0	0.0 0	1.8 16	1.1 17	0.3 4	1.3 3	0.2 1	3.0 26	8.9 140	0.0 0	0.0 0	0.0 0	0.1 2	0.1 4
0 to 5	5.2 54	7.8 12	4.7 42	2.4 28	10.5 195	4.2 39	4.0 6	4.3 33	5.0 40	12.6 211	1.6 14	7.8 12	0.3 2	0.6 9	2.7 53
5 to 10	6.4 64	9.3 16	5.8 48	1.7 19	4.6 84	4.8 46	5.6 8	4.6 38	4.6 45	9.0 168	0.9 9	3.0 5	0.4 4	0.8 11	4.1 80
10 to 15	10.3 107	10.1 17	10.3 90	3.8 47	9.7 195	7.4 72	2.6 6	8.3 66	4.0 42	6.4 123	1.2 13	2.9 7	0.8 6	0.6 14	4.7 102
15 to 20	13.2 121	10.5 12	13.7 109	8.6 92	12.2 221	10.4 94	5.9 9	11.2 85	8.1 81	8.3 150	3.4 31	7.8 13	2.4 18	1.8 25	7.6 161
20 to 25	18.8 175	8.7 18	20.9 157	15.2 171	13.3 242	11.7 122	4.4 8	13.0 114	9.9 105	7.8 153	4.6 46	7.4 12	4.0 34	3.9 57	9.5 219
25 to 30	14.3 129	6.3 11	15.9 118	25.5 246	17.2 283	13.4 127	6.7 10	14.7 117	12.5 138	9.1 186	7.9 82	8.8 17	7.7 65	5.2 72	9.6 244
30 to 35	8.3 72	1.5 3	9.7 69	19.9 178	12.5 190	12.1 119	3.8 6	13.6 113	14.7 162	9.0 186	18.8 190	21.4 38	18.3 152	11.8 186	9.5 231
35 to 40	3.3 26	0.0 0	4.0 26	10.2 89	6.1 92	6.9 73	5.3 8	7.2 65	13.3 157	7.6 171	28.6 284	6.1 10	33.4 274	22.0 337	14.8 348
40 to 45	0.9 7	0.0 0	1.1 7	2.9 22	1.7 23	2.7 31	1.3 2	3.0 29	6.9 80	4.1 90	15.9 155	2.3 4	18.8 151	31.4 460	20.6 464
45 to 50	0.2 1	0.0 0	0.2 1	1.5 7	0.9 7	0.8 8	0.6 1	0.8 7	1.6 19	1.1 23	5.7 51	0.3 1	6.9 50	8.9 128	5.8 129
>50	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.7 7	0.5 1	0.8 6	3.8 38	3.4 60	1.6 14	0.2 1	1.9 13	4.7 66	3.2 68
	100.0 959	100.0 165	100.0 794	100.0 981	100.0 1715	100.0 947	100.0 145	100.0 802	100.0 1058	100.0 1887	100.0 972	100.0 173	100.0 799	100.0 1468	100.0 2243

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. Modal values are shown in **bold** typeface. 'Children' are persons aged under 18.

Table 5. (continued)

	FI					FR					GE				
	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children
median [%]	18.5	7.2	20.3	27.4	22.1	15.7	-9.8	17.0	22.3	17.6	21.5	-2.2	24.1	30.0	9.7
mean [%]	19.5	5.5	21.4	27.9	23.1	15.1	-13.2	17.0	22.1	19.6	21.2	0.1	24.4	31.0	24.7
AETR band [%]	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.	Frequ no. [%] Obs.
<=-100	5.2 91	15.0 36	2.8 55	5.5 176	10.1 383	4.9 161	20.8 76	2.8 85	3.9 197	3.0 228	11.9 228	32.1 137	5.1 91	6.7 154	4.6 178
-100 to -50	2.9 64	4.6 15	2.5 49	2.6 92	5.3 215	4.8 160	14.5 55	3.5 105	2.9 151	2.3 185	3.0 83	4.2 27	2.6 56	1.2 43	1.6 73
-50 to -40	1.2 28	1.4 6	1.2 22	0.8 25	1.5 66	0.9 32	2.2 8	0.8 24	1.2 62	1.1 83	0.7 19	1.7 8	0.3 11	0.5 16	0.7 22
-40 to -30	2.1 48	4.6 12	1.5 36	1.4 46	2.1 90	1.6 54	2.8 11	1.4 43	1.3 69	1.3 102	1.1 21	1.7 7	0.8 14	0.9 20	1.0 40
-30 to -20	2.0 50	2.3 8	2.0 42	1.4 56	2.2 104	2.2 79	4.4 17	2.0 62	2.2 110	2.1 158	1.6 45	2.1 13	1.4 32	0.6 21	0.6 34
-20 to -10	3.3 91	3.6 13	3.3 78	2.2 84	3.5 164	4.4 149	5.1 20	4.2 129	3.3 165	3.7 278	3.1 84	5.0 26	2.4 58	1.2 47	1.4 80
-10 to 0	5.2 154	6.7 25	4.8 129	3.6 140	4.5 237	7.4 251	9.5 35	7.2 216	5.0 254	5.7 434	3.2 97	3.9 24	3.0 73	1.7 66	3.0 146
0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 1	0.0 0	0.0 0	0.0 0	0.0 1	0.0 1	0.0 0	0.0 0	0.0 0	2.4 63	1.9 82
0 to 5	5.1 133	7.5 19	4.5 114	2.3 101	2.8 161	5.6 191	5.0 18	5.6 173	3.4 185	5.5 431	2.3 74	1.9 10	2.4 64	2.0 67	4.8 215
5 to 10	6.8 190	8.3 34	6.5 156	2.5 118	3.0 188	7.8 269	8.9 33	7.6 236	4.1 227	7.0 554	5.6 125	6.4 23	5.4 102	3.5 128	30.7 1300
10 to 15	8.2 249	7.9 27	8.3 222	3.8 166	4.4 269	9.1 312	6.4 24	9.5 288	6.3 329	11.2 857	5.5 169	3.9 23	6.0 146	4.0 151	3.6 200
15 to 20	11.4 361	8.5 34	12.1 327	6.2 300	6.6 433	14.7 505	9.1 34	15.4 471	9.7 530	13.8 1089	9.2 254	5.3 28	10.5 226	7.6 249	5.3 275
20 to 25	15.4 474	12.1 38	16.2 436	10.6 544	10.4 764	18.5 628	6.5 24	20.0 604	17.8 992	16.1 1307	12.1 324	5.6 28	14.2 296	8.6 306	5.4 320
25 to 30	14.3 485	10.2 43	15.3 442	18.9 991	16.0 1232	13.7 464	3.1 11	15.1 453	26.5 1432	18.7 1521	12.1 363	8.4 35	13.3 328	9.1 379	5.6 381
30 to 35	9.6 354	4.7 20	10.7 334	21.6 1147	15.8 1298	3.6 122	0.5 2	4.0 120	9.9 507	6.7 521	16.4 416	9.7 38	18.6 378	11.6 498	6.9 499
35 to 40	4.7 206	1.9 12	5.4 194	11.2 725	7.8 777	0.8 25	0.9 3	0.7 22	1.9 102	1.3 104	9.3 250	4.8 24	10.9 226	18.2 661	10.8 661
40 to 45	1.6 76	0.2 2	1.9 74	4.0 321	2.9 342	0.2 6	0.3 1	0.2 5	0.4 19	0.3 20	2.0 50	2.5 9	1.8 41	15.3 449	9.2 450
45 to 50	0.8 37	0.3 2	0.9 35	0.9 102	0.6 107	0.0 0	0.0 0	0.0 0	0.1 5	0.1 5	0.7 5	0.7 2	0.7 3	4.5 105	2.7 105
>50	0.4 21	0.2 2	0.4 19	0.6 65	0.4 67	0.0 0	0.0 0	0.0 0	0.1 4	0.1 5	0.3 3	0.0 0	0.4 3	0.3 6	0.2 6
	100.0 3112	100.0 348	100.0 2764	100.0 5201	100.0 6898	100.0 3408	100.0 372	100.0 3036	100.0 5341	100.0 7883	100.0 2610	100.0 462	100.0 2148	100.0 3431	100.0 5067

Table 5. (continued)

	GR					IR					IT				
	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children
median [%]	20.5	9.3	21.0	16.2	7.2	8.1	-13.6	11.2	10.7	3.4	23.8	16.0	24.2	24.5	18.1
mean [%]	25.3	15.1	25.7	21.8	18.3	10.6	-16.2	13.8	17.5	16.2	26.2	19.0	26.6	27.4	23.2
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	1.7 23	10.0 9	1.1 14	1.2 27	7.8 271	9.0 107	32.5 58	3.6 49	4.4 46	3.5 51	0.5 12	1.5 2	0.4 10	0.2 10	1.1 59
-100 to -50	0.4 7	0.0 0	0.4 7	0.7 19	1.7 70	1.7 32	3.4 13	1.3 19	2.0 27	1.6 33	1.2 34	0.2 1	1.3 33	0.2 8	1.3 56
-50 to -40	0.1 3	0.5 1	0.1 2	0.2 8	0.5 19	1.2 26	2.0 6	1.0 20	0.5 9	0.8 19	1.2 20	1.4 1	1.1 19	0.1 2	0.4 27
-40 to -30	0.4 7	3.6 4	0.1 3	0.7 16	1.2 44	1.7 31	1.9 10	1.7 21	0.8 10	0.7 12	1.4 34	0.8 3	1.4 31	0.2 6	0.4 23
-30 to -20	0.6 8	2.7 2	0.4 6	0.6 18	1.2 47	4.3 71	4.2 14	4.4 57	1.1 16	0.9 19	1.1 35	1.9 5	1.1 30	0.2 8	0.6 33
-20 to -10	1.5 21	9.0 6	1.0 15	1.9 51	3.0 119	9.3 154	12.4 34	8.6 120	0.9 24	0.8 25	2.5 63	6.3 5	2.2 58	0.8 22	1.5 77
-10 to 0	5.2 82	12.1 11	4.7 71	7.7 184	9.0 317	12.8 227	18.3 47	11.6 180	1.0 30	0.9 32	4.3 114	8.5 16	3.9 98	1.5 53	4.2 245
0	0.1 1	0.0 0	0.1 1	5.0 143	3.4 146	0.0 0	0.0 0	0.0 0	24.4 284	35.4 601	0.5 15	1.1 3	0.5 12	0.4 11	1.2 55
0 to 5	4.6 70	9.8 9	4.2 61	9.6 240	15.4 502	5.4 129	5.4 22	5.4 107	7.3 154	7.1 186	3.5 100	10.6 17	2.9 83	2.0 68	8.9 422
5 to 10	4.3 74	2.9 3	4.4 71	8.9 255	11.4 423	9.0 208	8.6 35	9.1 173	6.1 150	5.7 174	4.1 106	7.2 19	3.8 87	3.1 95	8.2 450
10 to 15	9.4 137	8.0 7	9.5 130	9.9 297	8.0 338	14.9 329	6.2 29	17.0 300	10.2 212	9.7 242	7.8 204	7.7 23	7.9 181	5.6 16	10.6 599
15 to 20	20.0 269	17.6 13	20.2 256	16.8 474	12.0 496	13.4 289	4.0 19	15.6 270	13.6 269	11.2 289	9.4 276	16.4 35	8.8 241	14.7 44	18.8 1017
20 to 25	15.6 210	13.6 11	15.8 199	14.0 399	9.6 406	7.9 162	0.9 5	9.6 157	10.0 172	7.9 179	17.5 463	14.0 26	17.8 437	24.5 726	17.2 961
25 to 30	13.4 191	7.9 7	13.8 184	9.3 237	6.4 242	5.2 105	0.3 2	6.3 103	8.6 118	6.7 125	22.1 593	14.7 38	22.8 555	24.2 715	13.7 782
30 to 35	12.4 166	1.4 2	13.2 164	7.6 209	5.3 216	2.8 56	0.0 0	3.5 56	7.1 86	5.5 90	14.4 370	4.1 13	15.3 357	12.8 377	7.0 394
35 to 40	7.9 106	0.9 1	8.4 105	3.8 94	2.6 95	1.1 22	0.0 0	1.3 22	2.0 18	1.6 20	5.5 151	2.0 4	5.8 147	6.7 179	3.6 184
40 to 45	1.8 22	0.0 0	1.9 22	1.6 42	1.1 42	0.1 1	0.0 0	0.1 1	0.1 2	0.1 2	1.8 47	0.2 1	1.9 46	2.2 65	1.2 65
45 to 50	0.4 5	0.0 0	0.4 5	0.2 8	0.2 8	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.3 11	0.0 0	0.3 11	0.2 7	0.1 8
>50	0.3 4	0.0 0	0.3 4	0.2 7	0.1 7	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.8 20	1.5 2	0.7 18	0.4 10	0.2 10
	100.0 1406	100.0 86	100.0 1320	100.0 2722	100.0 3808	100.0 1949	100.0 294	100.0 1655	100.0 1627	100.0 2099	100.0 2668	100.0 214	100.0 2454	100.0 2964	100.0 5467

Table 5. (continued)

	LU					NL					PT				
	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children
median [%]	5.3	-5.1	6.0	19.1	15.1	23.3	-145.5	24.0	28.1	24.4	15.0	4.9	15.5	16.0	9.9
mean [%]	9.2	-2.9	10.2	24.6	22.4	24.6	-38.4	26.4	28.3	26.1	19.1	9.3	20.2	21.4	18.4
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	2.1 15	6.0 5	1.6 10	1.3 14	0.9 15	6.4 95	49.9 71	1.4 24	9.8 185	7.1 199	3.5 86	6.8 19	2.9 67	1.8 33	1.2 37
-100 to -50	3.4 32	9.2 10	2.7 22	0.5 6	0.6 10	0.4 6	2.4 4	0.1 2	2.4 51	1.6 51	0.6 19	1.6 5	0.4 14	1.1 17	0.9 31
-50 to -40	2.3 21	5.6 5	1.9 16	0.0 0	0.1 2	0.3 4	2.2 3	0.1 1	0.6 15	0.4 15	0.5 14	0.2 3	0.5 11	0.6 8	0.5 12
-40 to -30	2.7 22	4.5 4	2.5 18	0.3 3	0.4 6	0.1 2	1.2 2	0.0 0	0.2 7	0.2 7	0.5 11	1.8 4	0.3 7	0.4 10	0.3 11
-30 to -20	4.4 40	4.2 5	4.4 35	0.6 7	0.7 10	0.2 4	1.2 2	0.1 2	0.4 11	0.2 11	0.8 19	0.9 3	0.8 16	0.4 8	0.5 17
-20 to -10	7.6 64	10.5 10	7.2 54	1.0 9	1.7 19	1.0 16	4.2 6	0.7 10	1.0 19	0.8 22	1.3 40	3.0 11	1.0 29	0.9 20	1.1 38
-10 to 0	14.2 124	16.8 16	13.9 108	2.1 19	2.5 35	1.9 31	7.9 10	1.3 21	1.5 27	2.2 61	5.9 91	19.7 26	3.6 65	1.7 35	2.2 64
0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.4 10	0.3 11	0.0 0	0.0 0	0.0 0	3.2 61	24.4 828
0 to 5	12.7 101	11.8 13	12.8 88	3.1 29	9.1 121	0.9 16	0.6 1	1.0 15	1.2 22	2.2 62	5.7 131	15.9 39	4.1 92	5.6 94	10.6 286
5 to 10	15.9 135	9.4 11	16.8 124	8.5 98	16.3 248	2.4 35	6.8 8	1.9 27	1.8 39	5.5 169	12.6 236	15.3 39	12.1 197	9.5 199	8.3 250
10 to 15	11.4 93	7.6 10	11.9 83	16.7 229	17.7 330	4.7 72	6.1 10	4.5 62	3.0 67	13.4 443	18.6 369	9.0 40	20.1 329	19.4 38	13.9 416
15 to 20	8.2 61	3.7 3	8.8 58	18.5 251	15.3 301	13.6 213	7.0 9	14.3 204	4.0 68	9.3 267	22.2 365	14.1 28	23.5 337	24.6 489	16.1 516
20 to 25	6.7 50	8.1 7	6.5 43	16.8 208	12.8 241	27.2 408	7.3 9	29.5 399	8.8 185	8.4 267	13.8 219	6.2 11	15.1 208	13.9 267	9.1 275
25 to 30	5.2 36	0.0 0	5.9 36	12.7 147	9.4 166	24.7 356	1.4 2	27.4 354	27.2 564	20.9 639	7.0 92	2.8 6	7.6 86	8.2 129	5.3 135
30 to 35	2.6 19	2.5 2	2.6 17	9.3 109	6.6 120	11.2 171	0.5 1	12.4 170	27.9 574	20.0 616	6.2 74	2.0 4	6.8 70	6.4 78	4.1 80
35 to 40	0.5 4	0.0 0	0.6 4	5.7 59	3.7 61	2.3 36	0.6 1	2.4 35	6.3 132	5.0 150	1.0 14	0.7 3	1.0 11	1.7 21	1.1 22
40 to 45	0.0 0	0.0 0	0.0 0	2.3 26	1.8 30	1.6 23	0.0 0	1.8 23	2.1 40	1.5 45	0.0 0	0.0 0	0.0 0	0.3 3	0.2 3
45 to 50	0.0 0	0.0 0	0.0 0	0.6 6	0.4 7	0.5 7	0.7 1	0.4 6	0.8 17	0.6 20	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>50	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.5 7	0.0 0	0.6 7	0.4 9	0.3 11	0.0 0	0.0 0	0.0 0	0.3 5	0.2 5
	100.0 817	100.0 101	100.0 716	100.0 1220	100.0 1722	100.0 1502	100.0 140	100.0 1362	100.0 2042	100.0 3066	100.0 1780	100.0 241	100.0 1539	100.0 1858	100.0 3026

Table 5. (continued)

	SP					UK				
	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children	Children	Single Parent HH	Two Parent HH	No Chldrn, Head not retired	No Children
median [%]	14.2	3.8	14.6	12.8	9.6	14.1	-791.7	17.8	19.6	13.8
mean [%]	18.3	8.4	18.7	17.5	15.7	7.2	-97.0	14.8	17.5	14.7
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<=-100	0.8 21	4.2 8	0.6 13	0.3 10	0.3 11	27.0 528	67.4 314	13.8 214	11.9 349	10.6 463
-100 to -50	0.4 6	0.5 1	0.4 5	0.4 7	0.3 8	3.0 56	5.7 26	2.0 30	3.0 96	5.0 246
-50 to -40	0.2 2	1.2 1	0.1 1	0.0 0	0.0 1	0.8 16	1.6 7	0.6 9	0.9 27	1.6 79
-40 to -30	0.3 5	0.2 1	0.3 4	0.0 1	0.0 2	1.0 20	1.3 6	0.9 14	1.2 40	2.1 105
-30 to -20	0.7 14	2.1 3	0.7 11	0.1 5	0.1 6	0.9 18	1.3 6	0.8 12	1.3 40	2.0 98
-20 to -10	1.4 24	1.4 2	1.4 22	0.3 7	0.3 10	1.6 32	2.3 10	1.4 22	1.4 47	2.4 117
-10 to 0	7.0 133	28.0 40	5.7 93	1.5 51	1.2 61	3.8 75	5.2 23	3.3 52	2.6 80	3.6 175
0	0.2 4	0.0 0	0.2 4	17.6 497	26.8 1066	0.0 0	0.0 0	0.0 0	0.3 9	0.2 9
0 to 5	7.2 145	13.9 20	6.8 125	7.4 230	8.9 377	2.3 45	1.5 6	2.5 39	3.0 99	5.3 268
5 to 10	15.4 284	16.7 20	15.4 264	12.2 412	13.3 609	2.9 57	1.9 9	3.2 48	4.6 162	9.2 484
10 to 15	19.6 351	10.8 15	20.2 336	19.0 580	17.1 738	8.1 160	5.0 22	9.2 138	7.1 246	10.3 534
15 to 20	22.2 384	17.2 17	22.5 367	18.3 605	14.9 694	20.4 414	5.0 22	25.4 392	14.1 480	12.8 634
20 to 25	17.2 300	2.8 5	18.1 295	15.1 481	11.2 505	21.2 431	1.3 6	27.8 425	29.5 964	21.4 ###
25 to 30	4.1 65	0.3 1	4.4 64	5.2 163	3.7 165	5.8 121	0.4 2	7.6 119	16.7 506	11.8 510
30 to 35	1.8 26	0.0 0	2.0 26	1.3 38	1.0 39	0.9 18	0.0 0	1.2 18	2.0 64	1.4 65
35 to 40	0.9 14	0.5 1	0.9 13	0.5 18	0.4 18	0.3 6	0.0 0	0.4 6	0.2 8	0.2 8
40 to 45	0.4 6	0.0 0	0.4 6	0.4 14	0.3 14	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
45 to 50	0.1 3	0.0 0	0.1 3	0.2 3	0.1 3	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>50	0.0 0	0.0 0	0.0 0	0.2 5	0.1 5	0.0 0	0.0 0	0.0 0	0.1 2	0.0 2
	100.0 1787	100.0 135	100.0 1652	100.0 3127	100.0 4332	100.0 1997	100.0 459	100.0 1538	100.0 3219	100.0 4800

Table 6a. Distribution of Individual AETRs on Labour Income (non-civil servant employees)

	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	UK
median [%]	42.1	52.1	44.0	44.3	44.8	47.3	36.2	22.4	43.1	26.6	37.1	32.3	34.4	27.1
mean [%]	44.5	55.4	46.8	48.3	46.8	48.7	36.4	27.0	45.2	32.4	40.2	37.4	36.1	28.5
Std. Dev.	8.4	6.5	9.2	10.1	5.8	14.3	15.7	11.0	6.5	6.4	8.1	4.8	8.5	12.1
AETR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.
<0	0.3 8	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	2.1 119
0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	7.0 494	16.6 330	7.1 226	0.3 9	0.0 0	0.0 0	0.0 0	0.0 0	6.3 333
0 to 5	0.1 3	0.0 0	0.0 0	0.9 30	0.0 3	0.9 84	5.6 97	5.1 160	0.1 2	0.0 0	0.3 5	0.0 0	0.5 19	0.8 41
5 to 10	0.1 4	0.0 0	0.0 0	0.8 50	0.2 11	0.9 61	0.7 12	5.7 162	0.1 2	0.3 6	1.0 32	0.0 0	2.2 90	5.0 264
10 to 15	0.1 4	0.0 0	3.4 51	1.2 67	0.3 22	0.1 12	0.1 2	9.7 252	0.0 2	0.0 0	1.9 59	0.0 0	3.2 105	4.3 226
15 to 20	5.0 110	0.0 0	0.2 5	1.5 92	0.4 24	0.2 14	0.1 2	14.6 376	1.3 59	0.9 17	3.9 130	0.0 0	3.4 108	6.8 334
20 to 25	0.2 4	0.0 0	0.7 11	4.4 330	0.6 34	0.1 9	0.1 3	19.6 493	0.0 0	38.4 806	3.9 131	0.0 0	2.6 93	14.3 713
25 to 30	1.3 21	0.0 0	1.5 23	3.6 215	0.8 49	0.3 16	0.1 2	17.8 432	3.9 187	26.9 603	8.1 251	24.9 920	19.2 702	38.8 1969
30 to 35	14.4 295	0.0 0	3.1 56	6.9 346	2.8 185	7.1 416	0.1 4	10.4 228	9.4 394	16.6 341	19.0 617	50.2 1642	22.4 790	19.4 957
35 to 40	16.5 353	9.2 118	15.4 263	7.9 425	10.8 723	7.9 641	67.9 1278	8.0 167	11.7 483	10.4 199	33.5 1057	14.5 383	34.8 1220	2.0 104
40 to 45	33.4 666	10.4 124	34.9 584	28.0 1375	35.8 2301	14.7 1117	7.1 125	2.0 39	45.5 1712	5.2 101	26.2 829	5.3 119	9.2 317	0.3 18
45 to 50	25.9 465	20.3 258	23.9 388	30.3 1582	40.7 2533	30.6 2289	1.4 24	0.0 0	23.9 920	1.3 24	1.7 57	5.0 74	1.3 45	0.0 0
50 to 55	2.7 50	27.7 368	13.5 205	12.0 787	6.7 415	27.0 1587	0.1 3	0.0 0	3.3 117	0.0 1	0.3 12	0.1 3	0.6 19	0.0 0
55 to 60	0.0 0	25.7 361	1.6 27	2.3 195	0.7 46	3.0 135	0.0 1	0.0 0	0.4 11	0.0 0	0.1 4	0.0 0	0.2 7	0.0 0
60 to 65	0.0 0	6.1 90	0.7 11	0.3 25	0.0 3	0.1 4	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.1 7	0.0 0
65 to 70	0.0 0	0.5 7	0.3 4	0.0 2	0.0 0	0.0 0	0.0 0	0.0 0	0.0 1	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0
>70	0.0 0	0.1 1	0.8 13	0.0 1	0.1 4	0.0 1	0.0 0	0.0 0	0.0 0	0.0 0	0.1 6	0.0 0	0.1 6	0.0 0
	100.0 1983	100.0 1327	100.0 1641	100.0 5522	100.0 6353	100.0 6880	100.0 1883	100.0 2535	100.0 3899	100.0 2098	100.0 3190	100.0 3141	100.0 3528	100.0 5078

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data. To avoid difficult to interpret 'distortions' due to highly negative AETRs (as a result of refundable tax credits), standard deviations have only been computed for those observations with AETR values between +/- 100%. See text for further explanations.

Table 6b. Individual AETRs on Labour Income: Country Rankings (1998).

Rank	Martinez-Mongay (2000)		EUROMOD total		EUROMOD women		EUROMOD men		EUROMOD by gross earnings decile group									
		mean AETR [%]		mean AETR [%]		mean AETR [%]		mean AETR [%]	1	2	3	4	5	6	7	8	9	10
1	BE	45.1	BE	55.4	BE	54.1	BE	55.9	DK	DK	DK	BE	BE	BE	BE	BE	BE	BE
2	FI	43.8	GE	48.7	GE	48.5	GE	48.8	FR	FR	BE	GE	GE	GE	GE	GE	GE	FI
3	GE	43.7	FI	48.3	FR	45.3	FI	48.4	BE	BE	FR	FR	FI	FI	FI	FI	FI	DK
4	DK	42.7	FR	46.8	DK	44.8	DK	47.6	IT	GE	GE	DK	FR	IT	AT	AT	AT	IT
5	FR	41.3	DK	46.8	FI	44.8	IT	46.5	NL	IT	IT	FI	IT	DK	IT	IT	IT	GE
6	AT	41.0	IT	45.2	IT	43.3	AT	46.3	PT	AT	FI	IT	DK	AT	DK	DK	DK	AT
7	NL	35.9	AT	44.5	AT	41.9	FR	44.2	AT	FI	AT	AT	AT	FR	FR	FR	FR	FR
8	IT	35.3	NL	40.2	NL	36.4	NL	38.9	SP	PT	NL	NL	NL	NL	NL	NL	GR	PT
9	LU	31.7	PT	37.4	PT	35.9	PT	38.0	LU	SP	PT	PT	GR	GR	SP	SP	NL	GR
10	SP	29.6	GR	36.4	SP	35.6	GR	37.2	FI	LU	LU	SP	SP	SP	SP	SP	NL	NL
11	GR	28.7	SP	36.1	GR	34.6	SP	36.2	IR	NL	SP	GR	PT	PT	PT	PT	PT	LU
12	UK	25.4	LU	32.4	LU	31.5	LU	32.7	GR	GR	UK	LU	UK	UK	LU	LU	LU	SP
13	PT	24.8	UK	28.5	IR	25.4	UK	30.3	GE	UK	GR	UK	LU	LU	UK	UK	IR	IR
14	IR	23.2	IR	27.0	UK	25.0	IR	27.7	UK	IR	IR	IR	IR	IR	IR	IR	UK	UK

Table 7. Mean Individual AETRs (Labour Income) by Decile Group of Gross Earnings

%	AT	BE	DK	FI	FR	GE	GR	IR	IT	LU	NL	PT	SP	UK
Decile Group														
1	28.3	42.3	50.5	20.3	42.6	6.4	6.4	6.5	32.3	22.7	30.2	29.2	27.0	-2.5
2	34.6	45.4	46.9	31.9	45.5	36.1	16.6	7.0	35.5	24.1	23.0	29.1	26.1	9.0
3	37.3	49.0	52.0	39.6	47.3	41.7	17.7	14.7	40.1	26.1	30.4	30.2	25.6	19.6
4	40.5	50.0	42.7	42.6	43.9	44.9	29.9	17.6	42.1	26.1	35.0	31.2	30.7	24.1
5	42.4	52.4	42.8	43.7	42.9	46.6	35.1	21.2	42.8	27.0	38.1	31.9	32.2	27.1
6	43.6	53.3	43.6	45.1	42.6	48.3	34.7	24.2	43.8	27.9	38.8	32.4	34.6	28.2
7	45.2	54.5	43.5	46.3	43.0	49.3	35.5	25.4	44.8	29.8	39.8	33.4	35.6	29.1
8	47.0	55.8	44.3	47.5	43.4	50.6	36.9	28.9	45.9	31.5	38.2	35.1	37.1	30.2
9	49.0	58.2	46.5	49.9	44.1	52.0	39.9	32.1	47.5	34.4	38.0	37.8	38.5	30.4
10	49.0	61.3	52.5	54.6	46.8	51.5	42.4	35.2	51.7	39.3	41.6	45.2	39.3	34.2

Source: EUROMOD, author's calculations. Frequencies derived using weights supplied in the micro-data. See text for explanations. 'Gross Earnings' include employer SIC.

Table 8. Distribution of Marginal Effective Tax Rates

median [%]	AT						BE						DK						FI						FR					
	women		men		total		women		men		total		women		men		total		women		men		total		women		men		total	
	41.5	45.4					49.9	49.9					51.2	51.2					45.3	49.3					34.9	34.9				
Std. Dev.	20.5	17.4					18.9	17.9					11.5	11.7					19.9	21.6					15.6	14.8				
METR band [%]	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.
<0	0.0	0	0.0	0	0.0	0	1.2	17	2.3	28	1.8	45	0.8	16	1.2	23	1.0	39	0.7	85	0.6	70	0.7	155	0.6	34	0.6	38	0.6	72
0	15.9	253	8.9	157	11.8	410	8.5	89	7.9	106	8.2	195	1.5	18	1.1	15	1.2	33	7.9	951	12.5	1447	10.2	2398	4.1	240	2.4	179	3.2	419
0 to 5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.1	1	0.0	1	1.2	195	2.1	372	1.7	567	0.5	31	0.5	36	0.5	67
5 to 10	0.0	0	0.0	0	0.0	0	0.0	0	0.1	2	0.1	2	0.5	9	0.4	8	0.4	17	0.8	72	0.8	89	0.8	161	0.6	33	1.0	66	0.8	99
10 to 15	0.1	1	0.1	1	0.1	2	3.9	49	2.2	35	3.0	84	0.1	2	0.1	1	0.1	3	0.5	58	0.3	45	0.4	103	0.7	43	1.3	95	1.1	138
15 to 20	14.0	169	1.0	19	6.3	188	0.1	1	0.3	5	0.2	6	0.1	1	0.0	0	0.0	1	0.5	41	0.3	39	0.4	80	1.6	89	2.2	153	1.9	242
20 to 25	1.6	17	0.3	7	0.8	24	0.5	7	1.1	14	0.8	21	0.1	1	0.1	1	0.1	2	2.5	181	1.6	101	2.1	282	7.9	447	8.7	608	8.3	1055
25 to 30	0.9	13	0.4	8	0.6	21	1.4	17	1.3	15	1.3	32	0.1	1	0.1	1	0.1	2	4.6	280	3.2	157	3.9	437	13.1	753	15.1	1059	14.2	1812
30 to 35	3.4	41	1.0	19	2.0	60	2.0	25	1.8	31	1.9	56	0.0	0	0.1	1	0.0	1	3.7	240	2.5	159	3.1	399	35.4	1987	30.9	2141	32.9	4128
35 to 40	8.3	93	6.3	125	7.1	218	5.3	65	4.1	59	4.6	124	0.0	0	0.0	0	0.0	0	5.4	347	3.4	239	4.3	586	16.0	880	17.9	1226	17.0	2106
40 to 45	20.2	233	28.6	523	25.2	756	9.0	113	6.3	93	7.5	206	0.0	0	0.0	0	0.0	0	18.4	1166	11.8	719	15.0	1885	7.6	411	6.8	449	7.2	860
45 to 50	19.7	224	28.2	541	24.7	765	28.1	387	27.2	436	27.6	823	11.1	203	10.4	200	10.7	403	22.0	1394	18.4	1178	20.1	2572	5.7	300	5.4	355	5.6	655
50 to 55	7.0	84	13.5	230	10.9	314	33.3	459	36.3	604	35.0	1063	58.8	1011	44.5	859	51.2	1870	17.1	1169	20.4	1403	18.7	2572	1.2	65	1.6	105	1.4	170
55 to 60	4.4	41	7.3	123	6.1	164	2.6	31	5.2	87	4.0	118	2.2	38	1.7	30	1.9	68	7.5	576	14.6	1266	11.2	1842	0.6	34	0.9	63	0.8	97
60 to 65	0.7	12	0.7	11	0.7	23	0.4	7	0.9	17	0.7	24	20.3	354	36.9	692	29.1	1046	1.3	97	2.9	276	2.1	373	0.4	22	0.7	51	0.6	73
65 to 70	0.3	2	0.1	2	0.2	4	0.1	1	0.0	0	0.0	1	1.2	16	0.5	10	0.8	26	0.4	16	0.5	18	0.4	34	0.2	9	0.3	25	0.3	34
70 to 75	0.0	0	0.0	1	0.0	1	0.2	2	0.0	1	0.1	3	0.6	8	0.2	5	0.4	13	0.4	19	0.3	20	0.4	39	0.3	15	0.4	24	0.3	39
75 to 80	0.0	0	0.1	3	0.1	3	0.0	0	0.0	0	0.0	0	0.4	6	0.3	5	0.4	11	0.4	15	0.3	15	0.3	30	0.2	11	0.4	26	0.3	37
80 to 85	0.0	1	0.1	2	0.1	3	0.0	0	0.0	0	0.0	0	1.2	21	1.6	25	1.4	46	0.5	20	0.1	8	0.3	28	0.2	7	0.2	16	0.2	23
85 to 90	0.0	0	0.1	3	0.1	3	0.0	0	0.0	0	0.0	0	0.1	1	0.0	0	0.0	1	0.2	9	0.2	10	0.2	19	0.2	13	0.2	18	0.2	31
90 to 95	0.0	0	0.0	0	0.0	0	0.1	1	0.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.1	8	0.0	2	0.1	10	0.8	45	0.6	42	0.7	87
95 to 100	1.8	26	2.6	51	2.3	77	3.1	37	2.5	33	2.8	70	0.9	16	0.6	10	0.8	26	3.8	156	3.0	128	3.4	284	1.6	89	1.3	88	1.4	177
>100	1.7	18	0.5	9	1.0	27	0.3	4	0.4	6	0.3	10	0.3	5	0.1	2	0.2	7	0.1	4	0.2	7	0.1	11	0.5	30	0.6	35	0.6	65
	100.0	1228	100.0	1835	100.0	3063	100.0	1312	100.0	1572	100.0	2884	100.0	1727	100.0	1889	100.0	3616	100.0	7099	100.0	7768	100.0	14867	100.0	5588	100.0	6898	100.0	12486

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data. To avoid difficult to interpret 'distortions' due to very high or highly negative METRs, standard deviations have only been computed for those observations with METR values between +/- 100%. See text for further explanations. Modal values are shown in **bold** typeface.

Table 8. (continued)

median [%]	GE						GR						IR						IT						LU					
	women		men		total	women		men		total	women		men		total	women		men		total	women		men		total					
	53.2	51.4	23.2	30.0		30.8	30.8	33.3	39.6		34.4	35.9																		
Std. Dev.	19.0	16.0	18.7	17.0	21.8	18.4	17.6	18.0	19.1	16.5																				
METR band [%]	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.						
<0	0.2	7	0.2	9	0.2	16	1.5	25	1.2	43	1.3	68	0.0	0	0.0	0	0.0	0	0.0	1	0.0	2	0.0	3	0.0	0	0.1	2	0.1	2
0	5.2	237	3.8	187	4.4	424	33.6	625	22.1	843	25.7	1468	22.0	486	8.6	318	13.4	804	18.7	585	12.7	657	15.0	1242	9.1	111	5.4	121	6.8	232
0 to 5	1.0	36	0.2	8	0.5	44	3.8	59	2.2	85	2.7	144	1.3	20	6.8	231	4.8	251	0.5	9	0.7	31	0.6	40	0.0	0	0.0	0	0.0	0
5 to 10	0.1	3	0.0	0	0.0	3	0.6	9	1.1	41	0.9	50	0.1	2	1.2	60	0.8	62	3.3	109	2.7	150	2.9	259	0.4	5	0.8	11	0.7	16
10 to 15	1.2	48	0.3	18	0.7	66	2.4	37	7.0	242	5.5	279	0.5	13	3.1	161	2.1	174	0.2	6	0.4	22	0.3	28	17.1	207	16.9	313	17.0	520
15 to 20	0.6	42	0.1	6	0.3	48	6.6	115	5.2	194	5.7	309	1.9	30	5.1	194	3.9	224	1.6	53	0.4	20	0.9	73	5.5	56	4.5	82	4.9	138
20 to 25	3.0	126	1.2	77	2.0	203	9.2	141	4.4	150	6.0	291	6.6	116	6.2	219	6.4	335	2.2	74	1.9	102	2.0	176	4.6	47	2.6	43	3.3	90
25 to 30	1.3	69	1.9	85	1.6	154	7.5	112	15.5	534	13.0	646	10.5	160	12.0	344	11.5	504	7.0	244	1.9	103	3.9	347	6.3	78	5.5	111	5.8	189
30 to 35	5.5	183	6.5	345	6.0	528	7.9	126	7.7	251	7.8	377	9.3	153	15.9	441	13.5	594	22.6	685	16.4	850	18.7	1535	8.6	102	12.6	233	11.1	335
35 to 40	4.2	166	6.8	285	5.7	451	16.2	257	19.9	622	18.7	879	1.7	32	0.9	29	1.2	61	20.6	694	24.2	1324	22.8	2018	7.6	94	12.6	230	10.7	324
40 to 45	5.2	215	7.6	350	6.6	565	2.9	40	5.0	153	4.3	193	1.9	36	2.6	84	2.4	120	5.5	167	7.5	411	6.8	578	8.6	93	11.7	194	10.5	287
45 to 50	8.9	385	14.5	729	12.0	1114	4.4	64	5.6	171	5.2	235	19.2	294	23.7	657	22.0	951	12.0	356	19.0	949	16.4	1305	14.3	136	16.5	258	15.6	394
50 to 55	31.4	1326	32.3	1753	31.9	3081	0.6	12	1.0	35	0.9	47	17.8	261	9.7	212	12.6	473	2.5	69	6.6	339	5.1	408	13.9	138	8.3	144	10.4	282
55 to 60	20.6	749	16.3	773	18.2	1522	1.5	23	0.5	18	0.9	41	2.3	35	0.8	19	1.3	54	0.7	13	0.5	30	0.6	43	1.4	13	0.8	15	1.1	28
60 to 65	2.2	86	2.3	100	2.2	186	0.1	1	0.0	1	0.0	2	0.4	8	1.3	44	1.0	52	0.6	18	0.5	29	0.5	47	0.0	0	0.0	0	0.0	0
65 to 70	2.4	82	1.6	85	1.9	167	0.1	1	0.0	1	0.1	2	0.3	6	0.1	2	0.1	8	0.3	11	0.3	19	0.3	30	0.0	0	0.0	0	0.0	0
70 to 75	0.3	19	0.6	35	0.5	54	0.0	0	0.0	0	0.0	0	0.4	5	0.0	1	0.2	6	0.2	3	0.7	21	0.5	24	0.0	0	0.0	0	0.0	0
75 to 80	0.8	17	0.7	26	0.7	43	0.0	0	0.0	0	0.0	0	0.3	5	0.5	12	0.4	17	0.0	2	0.3	21	0.2	23	0.1	2	0.0	1	0.1	3
80 to 85	0.1	6	0.5	37	0.3	43	0.0	0	0.0	0	0.0	0	0.6	10	0.2	4	0.3	14	0.2	9	0.7	30	0.5	39	0.0	0	0.0	1	0.0	1
85 to 90	0.1	6	0.0	5	0.1	11	0.0	0	0.0	0	0.0	0	0.1	3	0.0	0	0.0	3	0.1	5	0.1	7	0.1	12	1.0	10	0.3	4	0.6	14
90 to 95	0.0	2	0.0	0	0.0	2	0.0	0	0.0	1	0.0	1	0.0	1	0.0	0	0.0	1	0.0	2	0.2	12	0.1	14	0.9	8	0.8	12	0.9	20
95 to 100	3.2	125	2.1	132	2.6	257	0.0	0	0.0	0	0.0	0	0.7	12	0.5	12	0.6	24	0.1	6	0.5	24	0.4	30	0.1	1	0.1	1	0.1	2
>100	2.7	102	0.7	33	1.6	135	1.1	17	1.3	41	1.3	58	2.0	31	0.8	24	1.3	55	0.8	24	1.8	90	1.4	114	0.6	5	0.4	8	0.5	13
	100.0	4039	100.0	5078	100.0	9117	100.0	1664	100.0	3426	100.0	5090	100.0	1719	100.0	3068	100.0	4787	100.0	3145	100.0	5243	100.0	8388	100.0	1106	100.0	1784	100.0	2890

Table 8. (continued)

median [%]	NL						PT						SP						UK					
	women		men		total	women		men		total	women		men		total	women		men		total				
	42.6	42.6	26.0	26.0		23.4	24.8	31.4	31.7															
Std. Dev.	21.4	23.4	17.1	16.8	14.9	14.6	18.6	12.2																
METR band [%]	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.	Frequ. no. [%] Obs.					
<0	3.3 72	3.8 93	3.6 165	0.0 0	0.0 0	0.0 0	0.3 6	0.3 11	0.3 17	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0					
0	5.1 109	1.8 47	3.2 156	15.3 341	10.5 339	12.5 680	31.8 696	19.1 782	23.5 1478	8.0 254	1.6 52	4.5 306												
0 to 5	0.0 2	0.0 1	0.0 3	0.0 0	0.1 3	0.0 3	2.0 45	1.1 50	1.4 95	0.1 2	0.0 0	0.0 2												
5 to 10	0.0 0	0.0 1	0.0 1	0.2 3	0.4 17	0.3 20	7.1 156	5.4 224	6.0 380	3.4 104	0.3 9	1.7 113												
10 to 15	0.0 1	0.0 1	0.0 2	13.4 306	14.1 494	13.8 800	0.1 3	0.4 23	0.3 26	0.2 6	0.0 1	0.1 7												
15 to 20	0.0 1	0.1 2	0.1 3	6.2 184	2.4 71	4.0 255	3.1 69	4.7 188	4.2 257	3.1 96	1.4 45	2.2 141												
20 to 25	0.0 1	0.0 1	0.0 2	4.3 87	7.5 261	6.2 348	10.1 220	19.7 847	16.4 1067	6.0 179	9.9 350	8.1 529												
25 to 30	0.1 4	0.0 0	0.1 4	23.0 593	30.8 1169	27.5 1762	18.1 437	21.0 906	20.0 1345	22.1 653	14.8 481	18.1 1134												
30 to 35	20.4 482	2.1 49	10.0 531	1.5 31	4.8 108	3.4 139	22.9 482	19.4 782	20.7 1264	44.5 1306	52.3 1703	48.8 3009												
35 to 40	15.7 321	16.3 454	16.1 775	19.6 408	14.9 443	16.9 851	1.6 36	2.9 121	2.5 157	3.0 90	13.4 470	8.6 560												
40 to 45	30.2 645	27.2 734	28.5 1379	6.3 96	6.6 142	6.5 238	1.0 24	2.5 95	2.0 119	0.8 24	1.0 31	0.9 55												
45 to 50	8.2 168	19.8 593	14.8 761	8.0 148	4.1 107	5.7 255	0.3 6	0.7 25	0.6 31	0.4 13	0.7 23	0.6 36												
50 to 55	7.4 163	17.4 502	13.1 665	0.1 4	0.0 1	0.1 5	0.5 9	0.7 29	0.7 38	0.1 2	0.1 2	0.1 4												
55 to 60	2.5 54	6.7 195	4.9 249	0.0 0	0.0 0	0.0 0	0.3 4	1.2 39	0.9 43	0.3 8	0.1 3	0.2 11												
60 to 65	0.5 8	0.5 13	0.5 21	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.0 0	0.3 10	0.3 7	0.3 17												
65 to 70	0.3 5	0.3 10	0.3 15	0.0 1	0.0 0	0.0 1	0.0 1	0.0 1	0.0 2	0.7 21	0.2 6	0.4 27												
70 to 75	0.2 4	0.3 10	0.3 14	0.0 0	0.0 5	0.0 5	0.0 0	0.0 1	0.0 1	0.5 15	0.2 6	0.3 21												
75 to 80	0.8 12	0.3 11	0.5 23	0.5 11	1.5 62	1.1 73	0.1 2	0.1 4	0.1 6	2.3 73	2.0 83	2.2 156												
80 to 85	0.7 12	0.3 10	0.5 22	0.0 1	0.0 1	0.0 2	0.0 0	0.0 0	0.0 0	0.4 13	0.5 18	0.5 31												
85 to 90	0.0 1	0.0 1	0.0 2	0.2 4	0.1 3	0.1 7	0.0 0	0.1 2	0.0 2	0.6 18	0.4 8	0.5 26												
90 to 95	0.3 2	0.1 3	0.2 5	1.3 38	1.8 80	1.6 118	0.0 0	0.0 0	0.0 0	0.3 11	0.3 13	0.3 24												
95 to 100	3.8 73	2.2 58	2.9 131	0.2 6	0.1 7	0.1 13	0.1 3	0.3 12	0.2 15	2.5 80	0.4 15	1.4 95												
>100	0.4 9	0.4 10	0.4 19	0.0 1	0.2 11	0.1 12	0.7 12	0.1 8	0.3 20	0.4 12	0.2 6	0.3 18												
	100.0 2149	100.0 2799	100.0 4948	100.0 2263	100.0 3324	100.0 5587	100.0 2211	100.0 4152	100.0 6363	100.0 2990	100.0 3332	100.0 6322												

Table 9a. Median METRs by Household Disposable Income, Women and Men

% <i>Decile Group</i>	AT		BE		DK		FI		FR		GE		GR		IR		IT		LU		NL		PT		SP		UK		
	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w
1	30.6	47.1	31.5	7.5	51.2	51.2	37.4	28.8	33.8	35.1	47.6	52.3	0.0	0.0	3.5	5.0	15.4	21.1	13.1	13.1	33.9	39.4	15.0	80.0	0.0	0.0	50.5	20.0	
2	18.2	44.3	11.9	29.1	47.6	51.2	40.1	34.1	34.5	35.8	49.0	51.5	0.0	1.8	60.0	5.0	25.9	33.3	13.1	13.1	38.9	42.6	11.0	15.0	0.0	6.4	70.0	77.9	
3	18.2	44.0	39.0	43.6	51.2	51.2	40.1	42.0	33.2	34.9	52.3	49.8	0.0	15.0	28.7	45.0	26.8	39.2	13.8	17.8	36.4	41.8	15.5	18.9	6.4	20.5	33.0	33.0	
4	18.2	44.9	42.2	45.2	51.2	51.2	42.1	43.8	28.7	28.6	49.9	51.5	0.0	17.4	19.7	30.8	28.7	39.6	16.7	24.2	36.3	42.6	15.0	24.4	0.0	23.4	30.0	31.4	
5	39.0	45.0	44.0	46.9	51.2	51.2	43.9	44.3	29.1	28.5	52.6	51.5	2.6	30.0	24.0	27.2	33.2	39.6	22.0	27.6	34.5	42.6	15.0	26.0	1.9	24.6	30.0	32.1	
6	34.7	44.9	49.0	49.1	51.2	51.2	44.8	45.4	33.8	32.4	53.3	52.4	5.0	30.0	24.0	30.0	33.2	39.6	29.9	34.8	42.1	42.6	25.0	26.0	20.5	24.7	31.3	31.4	
7	43.4	45.5	49.2	49.9	51.2	51.2	45.0	49.3	34.9	33.9	53.5	52.0	23.3	30.0	28.5	30.8	33.3	39.6	38.5	39.5	42.6	42.6	26.0	26.0	23.3	28.2	30.0	31.4	
8	41.9	45.8	49.9	50.4	51.2	51.2	48.2	49.9	34.9	33.9	54.0	51.9	30.0	31.4	28.5	30.8	33.4	39.6	38.3	39.7	42.6	46.7	26.0	26.0	24.8	28.0	31.4	31.4	
9	45.7	47.0	50.3	50.4	51.2	62.4	49.9	50.7	35.7	35.0	54.2	51.4	31.2	36.5	48.2	48.2	39.6	39.8	46.1	45.1	42.6	50.0	36.0	36.0	28.0	29.0	31.4	31.4	
10	44.8	46.3	50.4	54.2	62.4	62.4	51.1	55.1	39.3	39.3	51.5	48.0	36.5	40.0	48.2	48.2	39.8	46.3	49.5	47.3	50.0	50.0	42.1	42.1	31.2	33.0	31.4	35.1	

Table 9b. Median METRs by Earnings, Women and Men

% <i>Decile Group</i>	AT		BE		DK		FI		FR		GE		GR		IR		IT		LU		NL		PT		SP		UK		
	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w
1	0.0	44.0	37.4	11.9	51.2	51.2	39.1	40.5	31.8	32.5	29.0	46.2	0.0	0.0	24.0	5.0	21.2	21.6	13.1	22.8	33.9	42.6	15.0	15.5	0.0	6.4	10.0	23.0	
2	18.2	44.6	42.8	39.0	51.2	51.2	35.8	42.2	33.7	32.7	52.6	50.7	0.0	0.0	28.5	15.2	26.1	23.5	21.5	22.9	33.9	43.7	15.5	15.0	1.9	1.9	30.0	30.0	
3	42.6	43.8	46.0	45.1	51.2	51.2	35.8	36.5	34.1	34.9	51.2	47.8	13.7	2.9	28.5	25.5	33.3	33.3	27.5	22.9	36.4	38.5	26.0	24.9	0.2	6.4	30.0	31.4	
4	40.8	44.3	49.1	45.4	51.2	51.2	41.3	41.6	34.9	34.9	53.3	51.2	23.3	19.3	30.8	29.9	33.2	33.2	32.5	24.9	42.6	42.6	26.0	25.0	24.6	20.0	33.0	33.0	
5	42.0	42.1	50.4	49.9	51.2	51.2	44.8	44.3	34.9	34.9	52.9	51.9	31.2	15.0	30.8	30.8	33.2	33.2	36.4	25.5	42.6	42.6	26.0	26.0	28.0	24.1	31.4	33.0	
6	45.2	43.8	49.9	49.9	51.2	51.2	45.0	44.8	34.9	34.9	53.6	52.4	31.4	27.6	49.2	30.8	39.6	39.6	41.7	29.0	42.6	42.6	26.0	26.0	23.3	23.3	31.4	32.1	
7	45.2	46.0	50.4	49.9	51.2	51.2	49.9	49.5	34.9	34.9	54.2	53.0	38.4	30.8	49.2	30.8	39.6	39.6	47.0	34.4	40.0	39.4	36.0	26.0	28.0	26.6	31.4	31.4	
8	47.6	47.4	50.0	49.9	57.5	51.2	50.2	49.9	34.9	32.5	54.7	54.1	39.2	30.0	49.2	30.8	39.6	39.6	50.4	36.5	50.0	41.4	36.0	26.0	28.0	28.0	31.4	31.4	
9	52.8	51.2	50.4	50.4	62.4	62.4	50.7	50.7	35.7	33.9	56.8	51.7	36.5	36.5	48.3	48.3	40.2	42.4	50.6	43.3	49.6	50.0	37.0	36.0	31.7	29.2	26.2	25.7	
10	42.6	43.4	54.2	54.6	62.4	62.4	55.6	55.6	42.8	39.3	53.2	46.0	40.0	45.0	48.3	48.3	45.7	47.8	47.2	45.3	50.0	50.0	42.2	42.2	37.6	39.0	40.0	40.0	

Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. 'Earnings' are gross but do not include employer SIC. Earnings decile groups are those for all people with earnings (men and women). Decile groups of household disposable income are based on equivalised household incomes (see footnote 17).

Table 10. Distribution of METRs by Poverty Status

METR band [%]	AT		BE		DK		FI		FR		GE		GR															
	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor														
	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.	Frequ. [%]	no. Obs.														
<0	0.0	0	0.0	0	4.1	7	1.6	38	0.4	1	1.1	38	0.3	6	0.7	149	0.0	0	0.6	72	0.3	2	0.2	14	1.6	11	1.3	57
0	15.4	29	11.6	382	32.5	52	6.2	143	1.8	3	1.2	30	24.4	306	9.3	2092	5.9	60	3.0	359	20.5	50	3.8	374	60.8	409	21.2	1059
0 to 5	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	3.0	51	1.6	516	0.0	0	0.5	67	2.5	6	0.5	38	4.2	26	2.5	118
5 to 10	0.0	0	0.0	0	0.6	1	0.0	1	8.0	17	0.0	0	1.4	14	0.8	147	0.0	0	0.9	99	0.0	0	0.0	3	1.2	8	0.9	42
10 to 15	1.3	1	0.0	1	14.4	27	2.0	57	0.4	1	0.1	2	0.9	15	0.4	88	0.1	1	1.1	137	0.1	1	0.7	65	3.1	22	5.8	257
15 to 20	7.4	10	6.2	178	1.6	3	0.1	3	0.0	0	0.0	1	0.4	4	0.4	76	2.4	21	1.9	221	0.0	0	0.3	48	19.4	125	3.9	184
20 to 25	1.4	3	0.8	21	4.9	8	0.5	13	0.0	0	0.1	2	8.2	45	1.7	237	29.0	275	6.7	780	9.3	34	1.7	169	3.1	17	6.3	274
25 to 30	3.7	4	0.4	17	4.3	6	1.1	26	0.0	0	0.1	2	10.8	59	3.4	378	0.9	9	15.3	1803	2.3	7	1.6	147	3.5	20	14.2	626
30 to 35	4.7	5	1.8	55	4.5	11	1.7	45	0.0	0	0.0	1	6.0	32	2.9	367	12.5	116	34.6	4012	0.8	2	6.2	526	1.3	9	8.6	368
35 to 40	4.5	8	7.3	210	5.1	11	4.6	113	0.0	0	0.0	0	1.9	16	4.5	570	15.9	142	17.1	1964	3.1	9	5.8	442	1.4	8	21.0	871
40 to 45	12.7	19	25.9	738	3.0	4	7.9	202	0.0	0	0.0	0	2.5	24	15.9	1861	9.9	84	6.9	776	3.6	14	6.7	551	0.2	1	4.8	192
45 to 50	5.4	11	25.8	754	2.2	5	29.7	818	34.5	73	9.3	330	1.4	12	21.4	2560	4.5	38	5.6	617	7.0	13	12.2	1101	0.0	0	5.9	235
50 to 55	5.3	10	11.2	304	1.3	3	37.7	1060	36.9	72	52.1	1798	1.3	13	19.9	2559	2.8	23	1.3	147	3.3	9	32.9	3072	0.0	0	1.0	47
55 to 60	2.0	4	6.3	160	1.7	2	4.2	116	6.5	11	1.7	57	1.0	7	11.9	1835	0.8	8	0.8	89	0.5	4	18.8	1518	0.0	0	1.0	41
60 to 65	4.8	5	0.5	18	0.0	0	0.8	24	4.2	14	30.6	1032	1.4	9	2.2	364	1.1	8	0.6	65	3.3	6	2.2	180	0.0	0	0.0	2
65 to 70	0.4	1	0.1	3	0.0	0	0.0	1	0.7	1	0.8	25	0.7	6	0.4	28	1.4	13	0.2	21	18.6	38	1.3	129	0.0	0	0.1	2
70 to 75	0.1	1	0.0	0	0.0	0	0.1	3	0.0	0	0.4	13	1.2	9	0.3	30	0.1	1	0.3	38	0.5	3	0.5	51	0.0	0	0.0	0
75 to 80	0.0	0	0.1	3	0.0	0	0.0	0	0.0	0	0.4	11	1.2	5	0.3	25	0.1	1	0.3	36	2.9	2	0.7	41	0.0	0	0.0	0
80 to 85	0.0	0	0.1	3	0.0	0	0.0	0	0.0	0	1.5	46	1.4	9	0.2	19	0.0	0	0.2	23	0.0	0	0.3	43	0.0	0	0.0	0
85 to 90	0.0	0	0.1	3	0.0	0	0.0	0	0.0	0	0.0	1	1.4	6	0.1	13	0.2	2	0.2	29	0.0	0	0.1	11	0.0	0	0.0	0
90 to 95	0.0	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0	0	0.8	6	0.0	4	0.0	0	0.7	87	0.0	0	0.0	2	0.0	0	0.0	1
95 to 100	27.9	49	0.8	28	19.5	35	1.4	35	6.0	11	0.4	15	27.5	162	1.8	122	10.5	96	0.7	81	16.2	60	2.1	197	0.0	0	0.0	0
>100	3.1	5	0.9	22	0.4	1	0.3	9	0.7	2	0.1	5	0.7	4	0.1	7	1.7	14	0.5	51	5.1	13	1.5	122	0.2	2	1.4	56
	100.0	163	100.00	2900	100.0	176	100.00	2708	100.0	206	100.00	3410	100.0	820	100.00	14047	100.0	912	100.00	11574	100.0	273	100.00	8844	100.0	658	100.00	4432

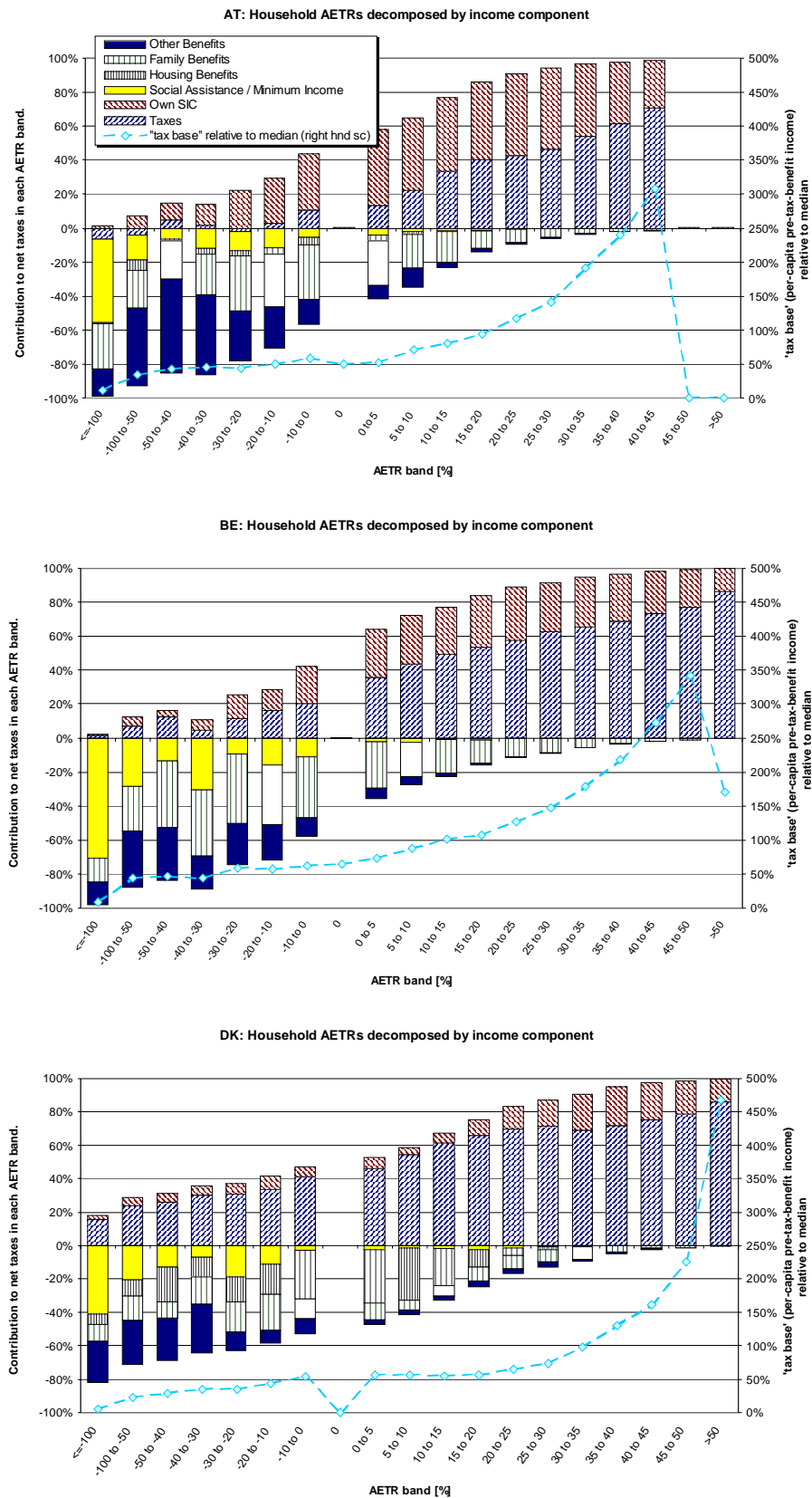
Source: EUROMOD, author's calculations. Frequencies are derived using weights supplied in the micro-data.

See text for explanations. Modal values are shown in **bold** typeface. 'Poor' persons are those living in households with per-capita income of less than 60% of median equivalised household disposable income.

Table 10. (continued)

METR band [%]	IR		IT		LU		NL		PT		SP		UK															
	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor	poor	non-poor														
	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.	Frequ no.														
	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.	[%] Obs.														
<0	0.0	0	0.0	0	0.1	1	0.0	0	0.1	2	17.6	41	2.8	124	0.0	0	0.0	0	1.7	9	0.2	8	0.0	0	0.0	0		
0	20.2	24	13.3	780	9.8	92	15.6	1150	4.7	13	7.0	219	10.1	27	2.9	129	22.1	176	11.3	504	53.4	350	20.3	1128	16.9	57	3.8	249
0 to 5	38.2	41	3.9	210	4.4	24	0.2	16	0.0	0	0.0	0	0.0	0	0.2	1	0.0	2	7.4	50	0.7	45	0.0	0	0.0	0	0.0	2
5 to 10	3.3	5	0.7	57	18.3	165	1.1	94	0.1	1	0.7	15	0.2	1	0.0	0	0.5	5	0.3	15	22.2	145	4.2	235	1.7	6	1.7	107
10 to 15	0.0	0	2.2	174	1.9	15	0.1	13	66.5	168	12.6	352	0.0	0	0.0	2	33.0	252	11.4	548	0.4	2	0.3	24	0.3	1	0.1	6
15 to 20	0.0	0	4.0	224	2.9	20	0.6	53	1.6	3	5.1	135	0.0	0	0.1	3	3.5	43	4.1	212	5.3	36	4.0	221	8.4	30	1.8	111
20 to 25	1.0	1	6.5	334	9.0	84	1.2	92	4.3	10	3.2	80	0.0	0	0.0	2	0.6	9	6.9	339	6.3	40	17.5	1027	0.8	3	8.5	526
25 to 30	0.6	1	11.8	503	8.7	87	3.3	260	2.4	7	6.1	182	0.3	1	0.0	3	13.3	124	29.4	1638	0.0	0	22.2	1345	6.7	25	18.7	1109
30 to 35	0.0	0	13.9	594	23.4	217	18.2	1318	2.1	6	11.9	329	11.0	28	9.9	503	0.5	5	3.8	134	0.2	4	22.9	1260	7.2	25	51.1	2984
35 to 40	2.5	2	1.2	59	3.7	40	25.1	1978	0.7	3	11.6	321	20.3	44	15.8	731	0.1	3	19.0	848	0.2	1	2.7	156	1.2	4	9.1	556
40 to 45	0.8	1	2.4	119	6.1	59	6.8	519	0.0	0	11.4	287	16.1	51	29.2	1328	0.0	0	7.3	238	0.0	0	2.2	119	1.9	7	0.9	48
45 to 50	1.7	2	22.6	949	2.8	32	18.0	1273	0.8	1	16.9	393	0.0	0	15.6	761	0.0	0	6.4	255	0.0	0	0.6	31	0.9	3	0.6	33
50 to 55	0.0	0	13.0	473	1.1	6	5.5	402	0.0	0	11.4	282	0.0	0	13.8	665	0.0	0	0.1	5	0.0	0	0.7	38	0.2	1	0.1	3
55 to 60	22.7	21	0.8	33	0.5	4	0.6	39	0.3	1	1.1	27	0.0	0	5.2	249	0.0	0	0.0	0	0.2	1	1.0	42	0.0	0	0.2	11
60 to 65	3.8	4	0.9	48	0.6	4	0.5	43	0.0	0	0.0	0	1.2	3	0.4	18	0.0	0	0.0	0	0.0	0	0.0	0	1.0	4	0.3	13
65 to 70	0.0	0	0.1	8	0.1	3	0.3	27	0.0	0	0.0	0	0.8	3	0.3	12	0.0	1	0.0	0	0.2	2	0.0	0	3.8	13	0.2	14
70 to 75	0.0	0	0.2	6	1.5	8	0.3	16	0.0	0	0.0	0	0.9	3	0.2	11	0.2	3	0.0	2	0.1	1	0.0	0	2.8	10	0.2	11
75 to 80	0.0	0	0.4	17	0.0	0	0.2	23	0.3	1	0.0	2	1.2	5	0.5	18	9.8	73	0.0	0	0.5	3	0.1	3	21.1	87	1.1	69
80 to 85	3.2	3	0.2	11	0.5	3	0.5	36	0.0	0	0.0	1	0.6	3	0.5	19	0.2	2	0.0	0	0.0	0	0.0	0	3.7	14	0.3	17
85 to 90	0.0	0	0.0	3	0.2	1	0.1	11	5.2	11	0.1	3	0.0	0	0.0	2	0.9	7	0.0	0	0.0	0	0.0	2	3.8	11	0.3	15
90 to 95	0.0	0	0.0	1	0.4	6	0.1	8	9.1	16	0.2	4	0.0	0	0.2	5	12.8	116	0.2	2	0.0	0	0.0	0	1.9	8	0.2	16
95 to 100	2.0	3	0.5	21	0.5	5	0.4	25	0.6	1	0.0	1	17.0	47	2.1	84	1.1	13	0.0	0	1.3	7	0.1	8	14.2	53	0.7	42
>100	0.0	0	1.3	55	3.5	22	1.2	92	1.3	2	0.4	11	2.7	6	0.3	13	1.2	12	0.0	0	0.6	6	0.3	14	1.3	4	0.2	14
	100.0	108	100.0	4679	100.0	898	100.0	7490	100.0	244	100.0	2646	100.0	263	100.0	4685	100.0	845	100.0	4742	100.0	657	100.0	5706	100.0	366	100.0	5956

Figure 1.



Source: EUROMOD, author's calculations.

See text for explanations. Zero values are shown for AETR bands containing fewer than 10 observations. Graphs in figure 1 need to be read in conjunction with table 1.

Figure 1. (continued)

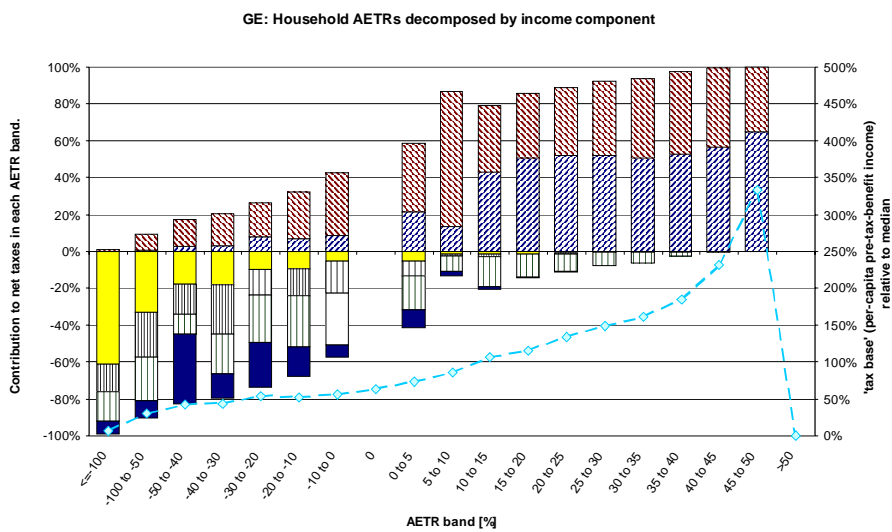
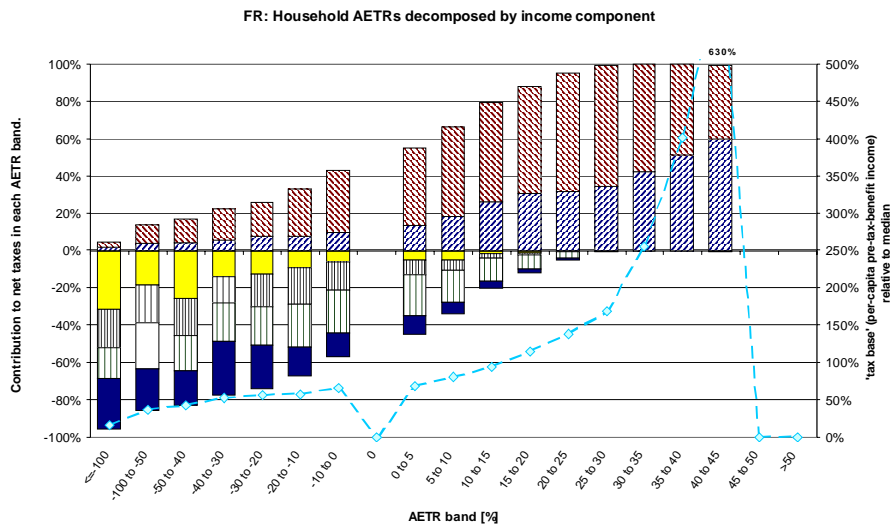
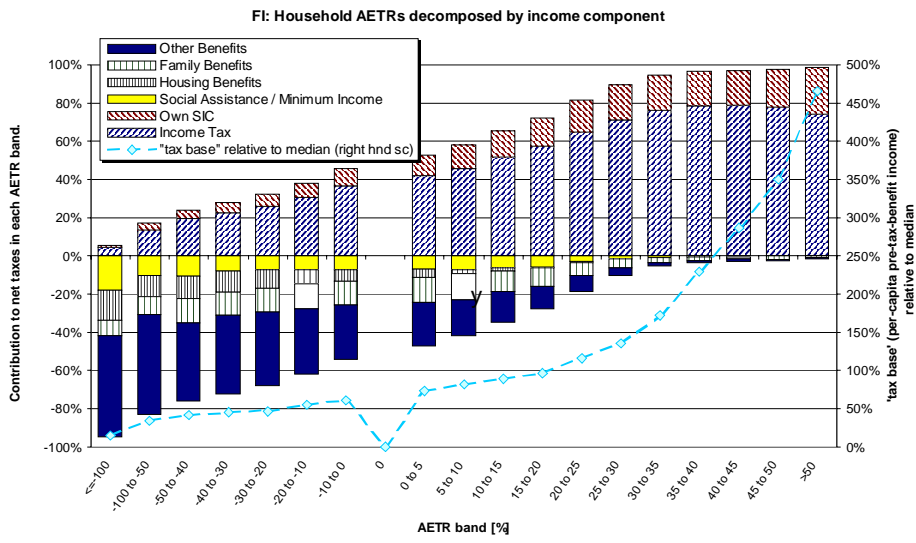


Figure 1. (continued)

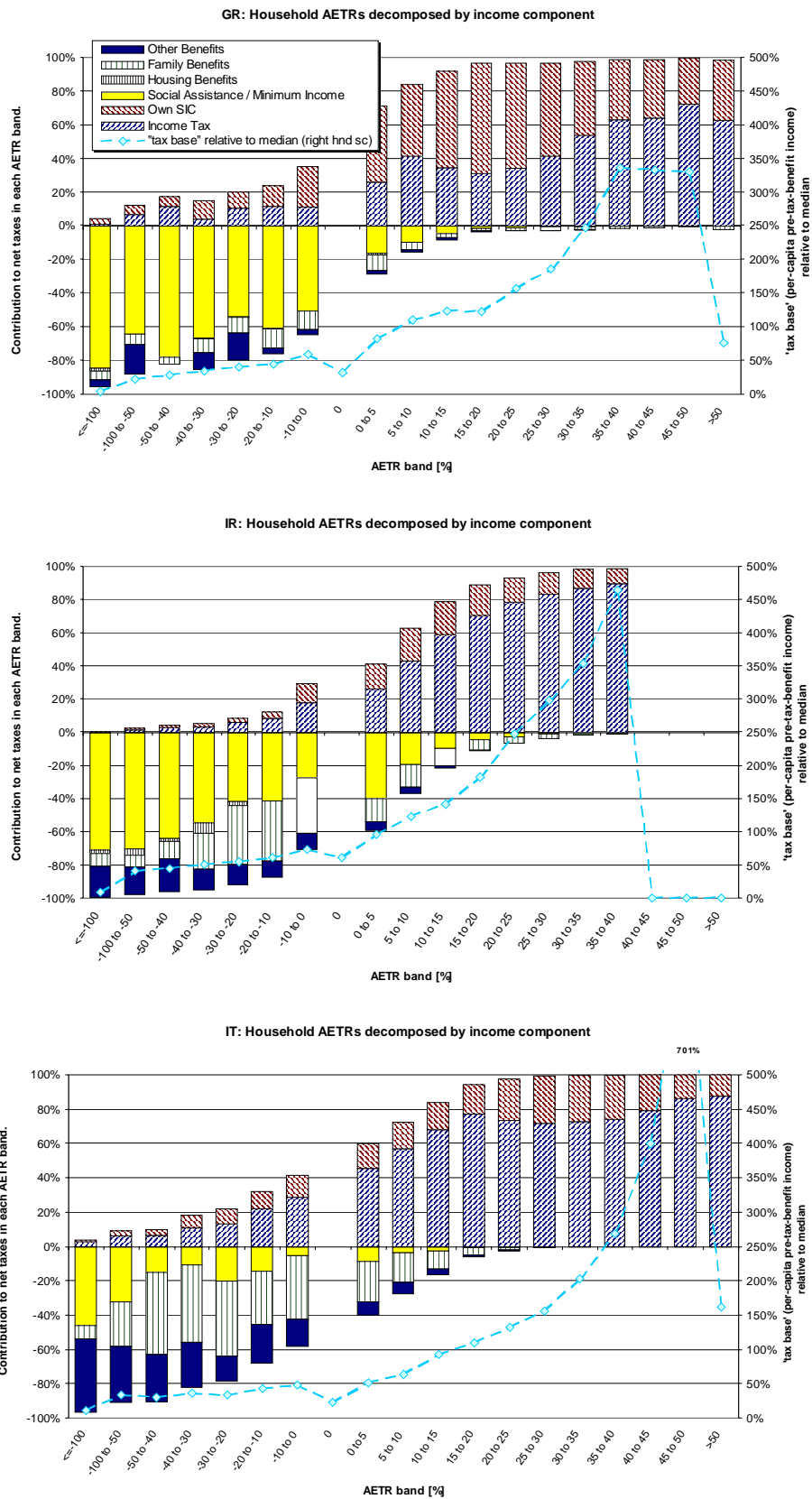


Figure 1. (continued)

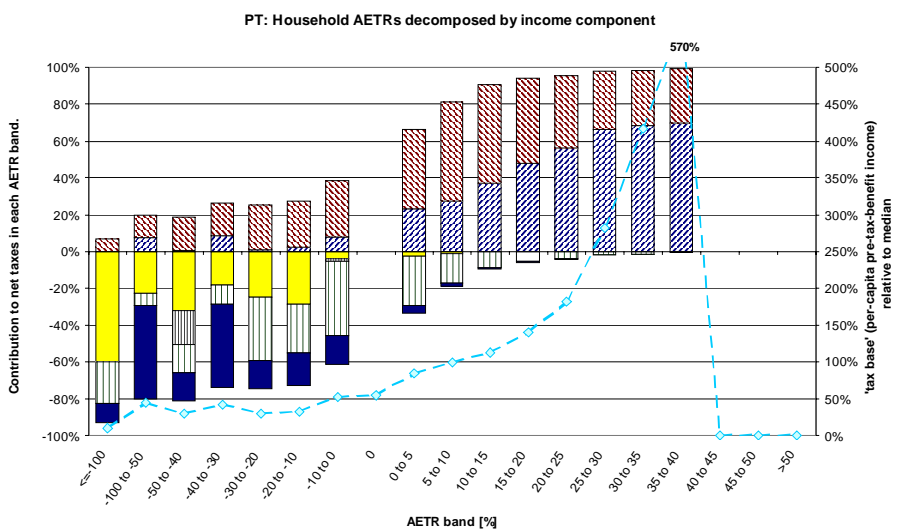
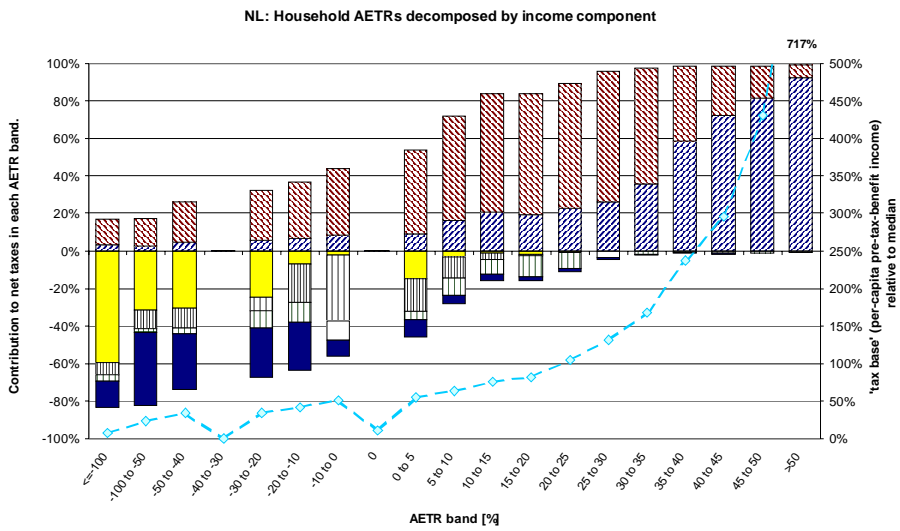
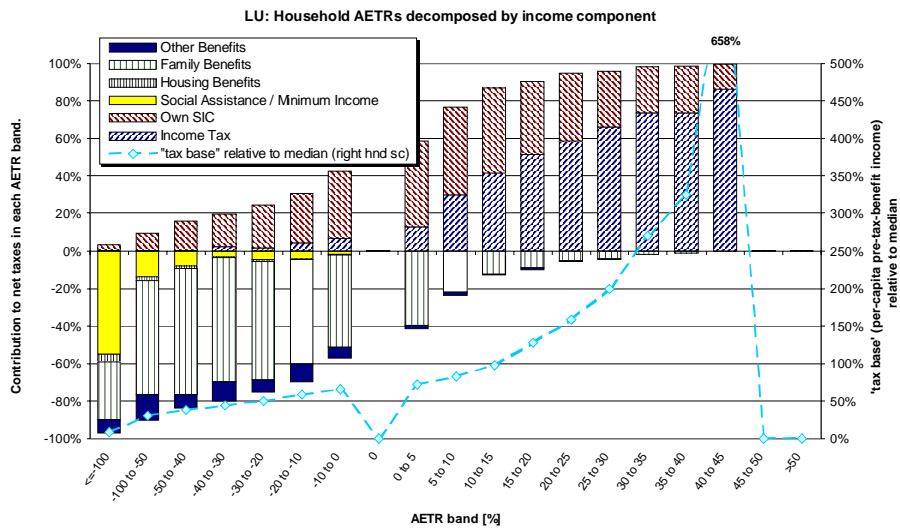


Figure 1. (continued)

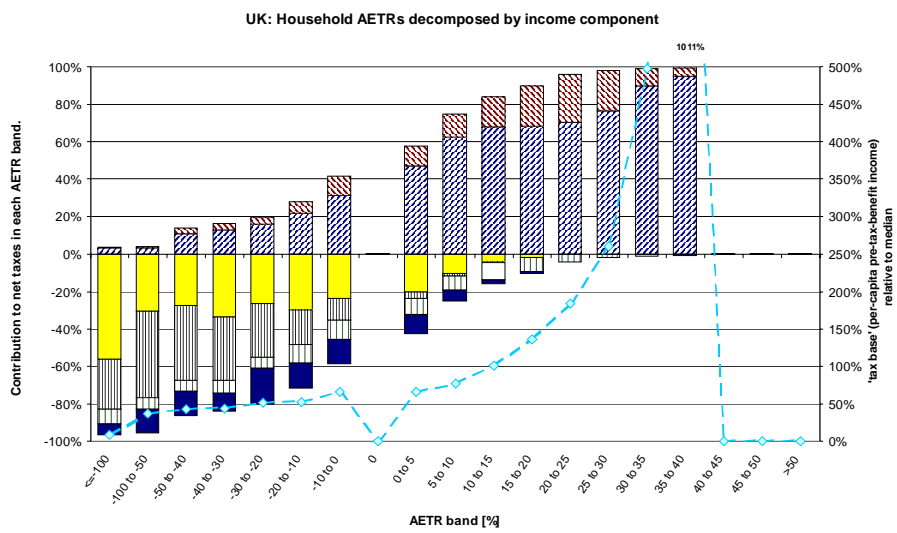
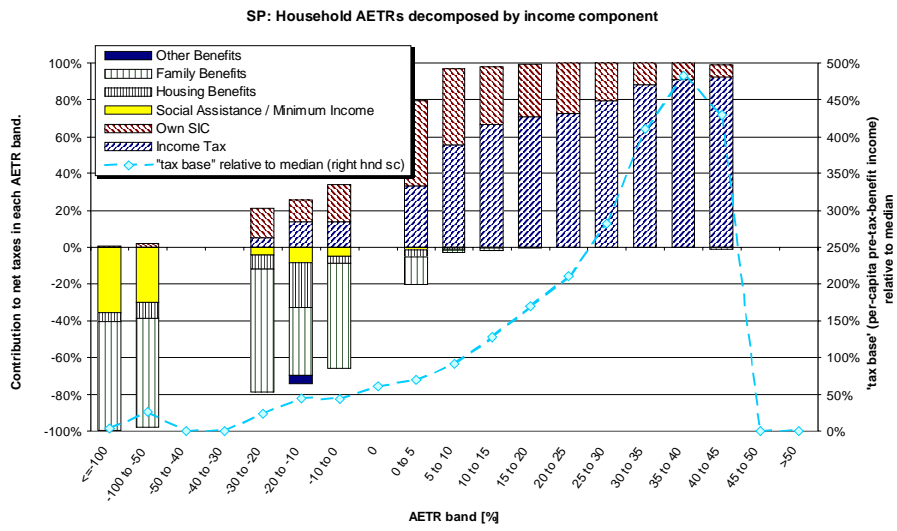
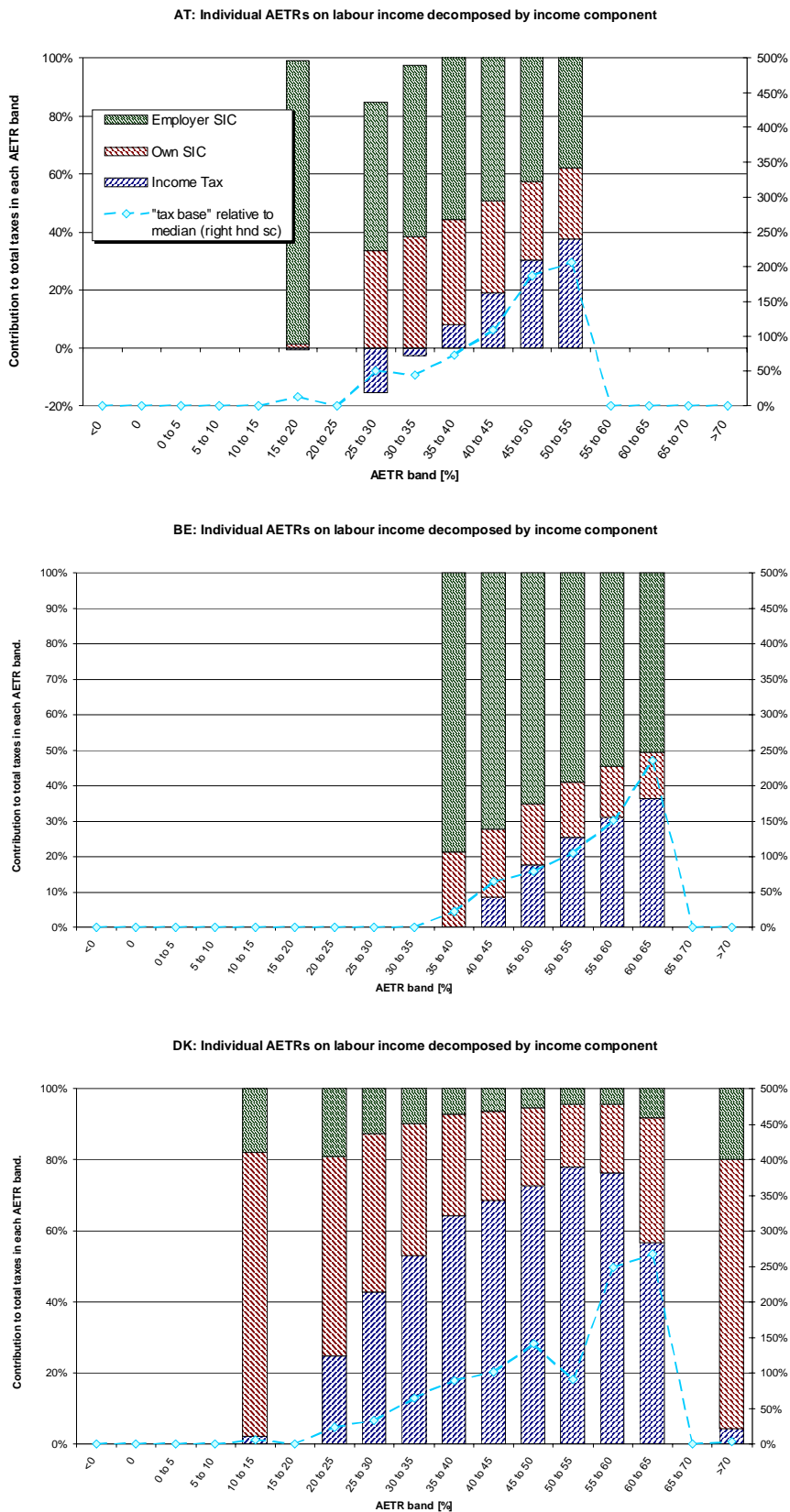


Figure 2.



Source: EUROMOD, author's calculations.

See text for explanations. Zero values are shown for AETR bands containing fewer than 10 observations. Graphs in figure 2 need to be read in conjunction with table 6a.

Figure 2. (continued)

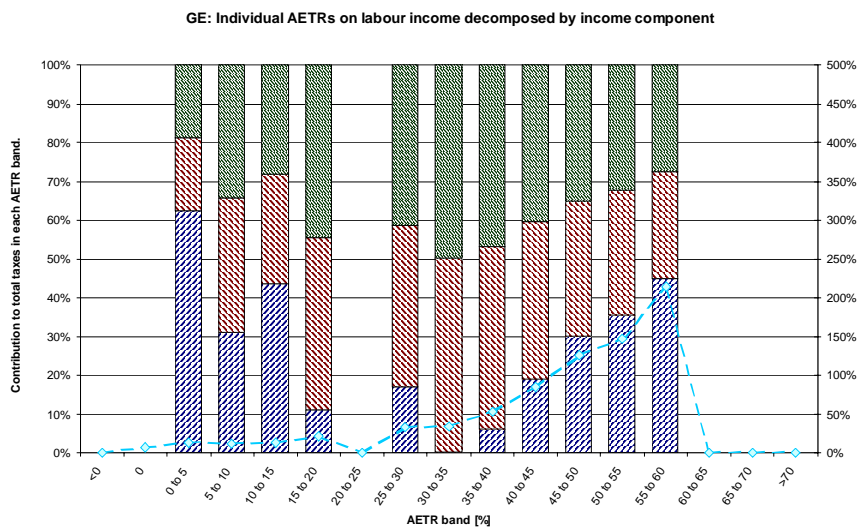
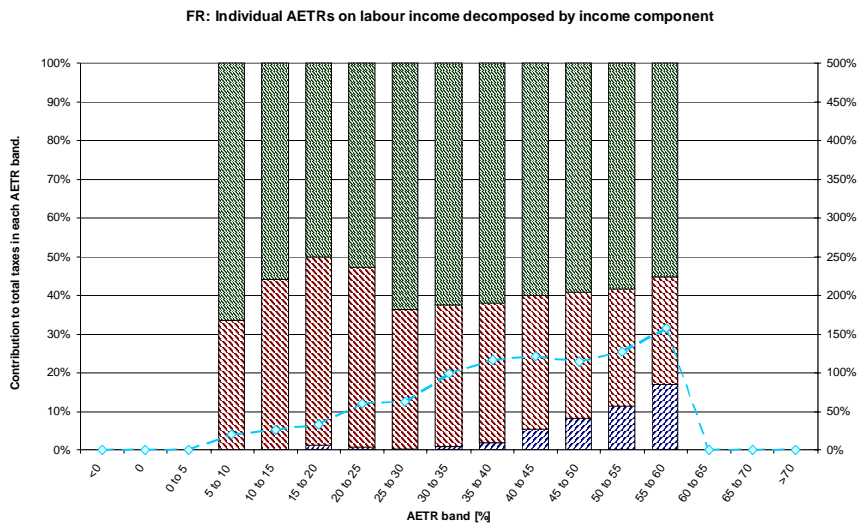
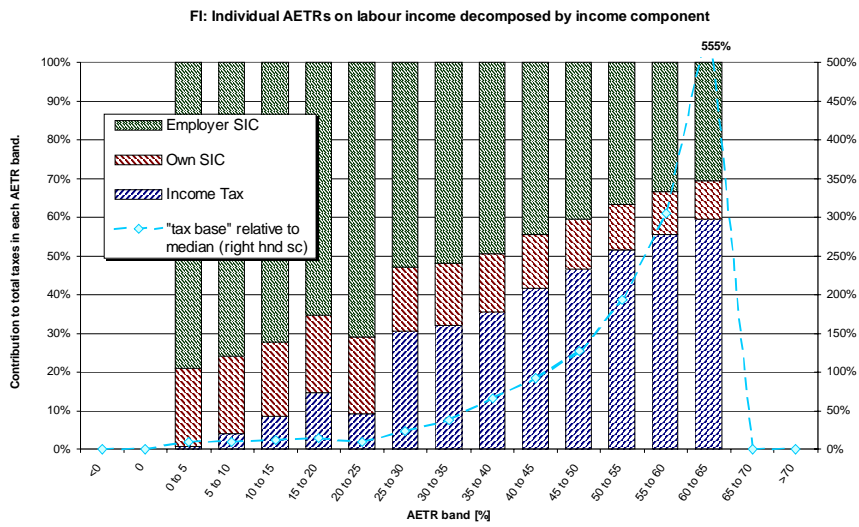


Figure 2. (continued)

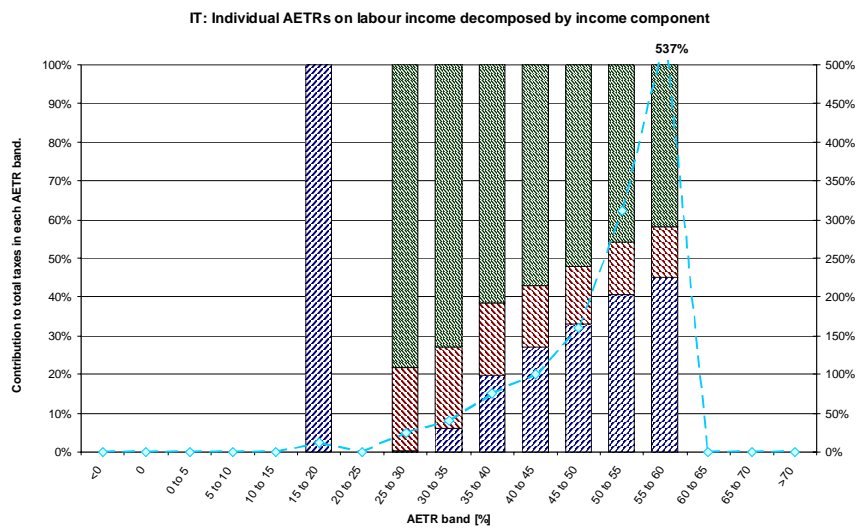
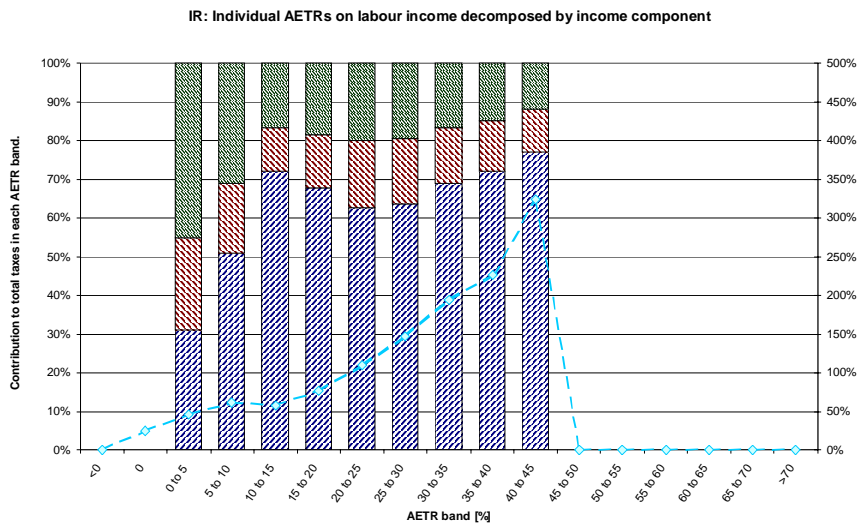
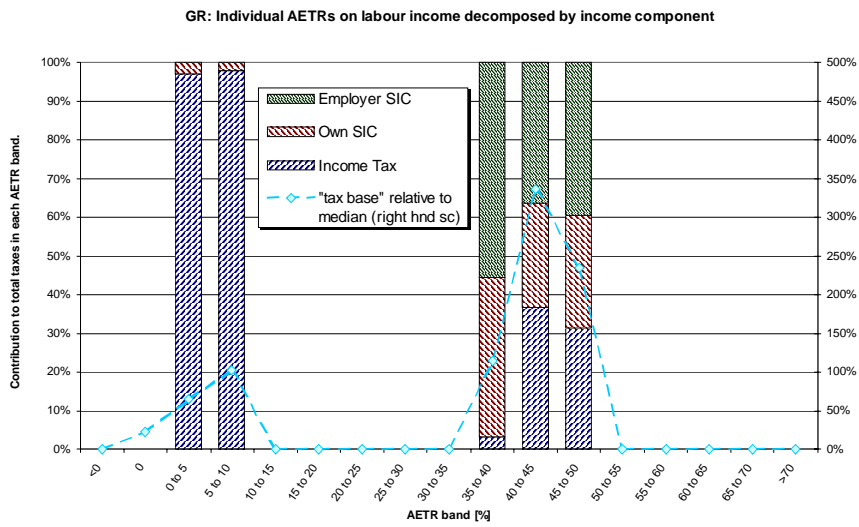


Figure 2. (continued)

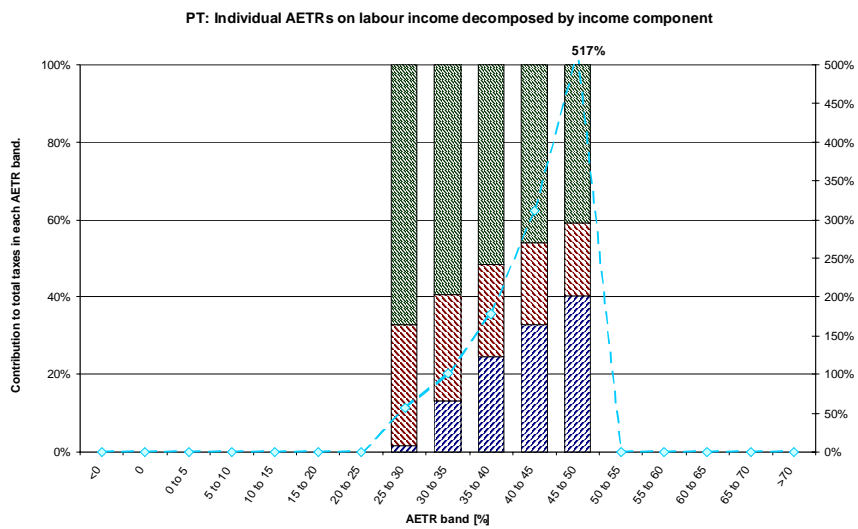
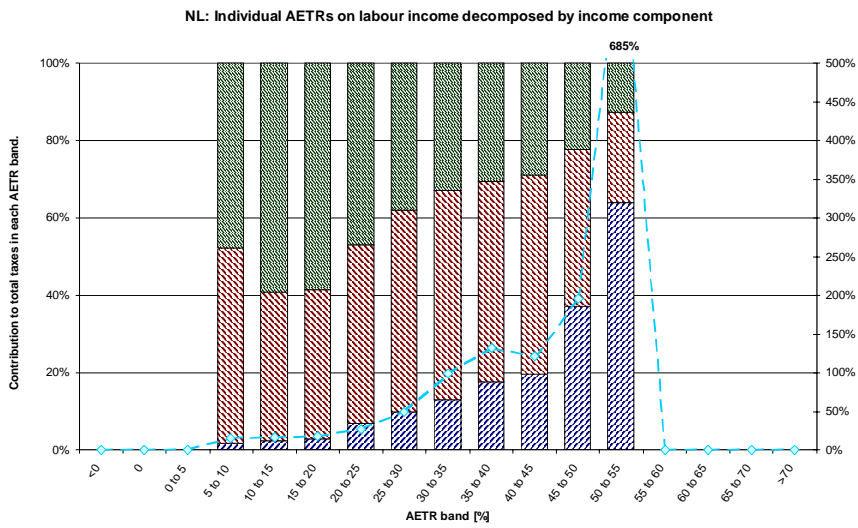
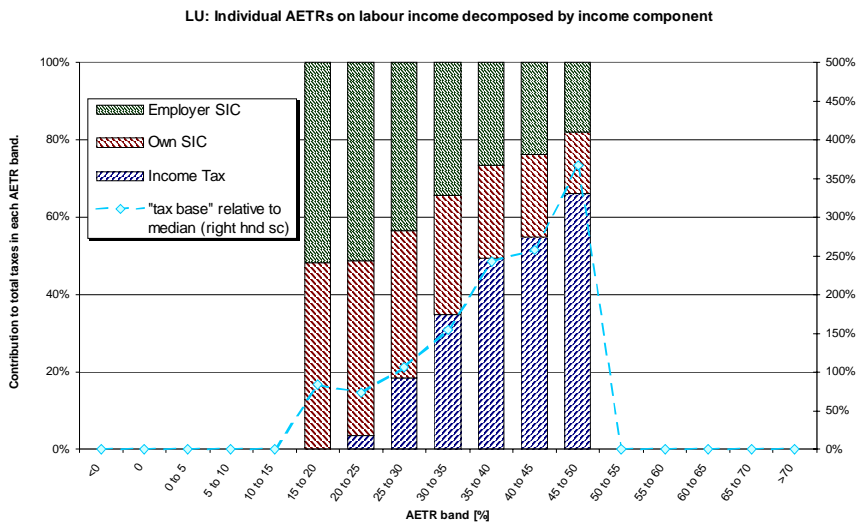
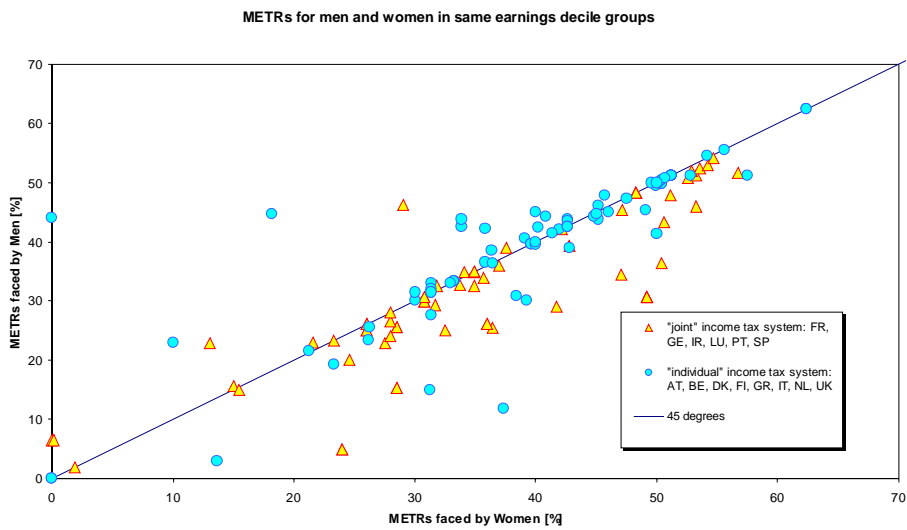


Figure 2. (continued)



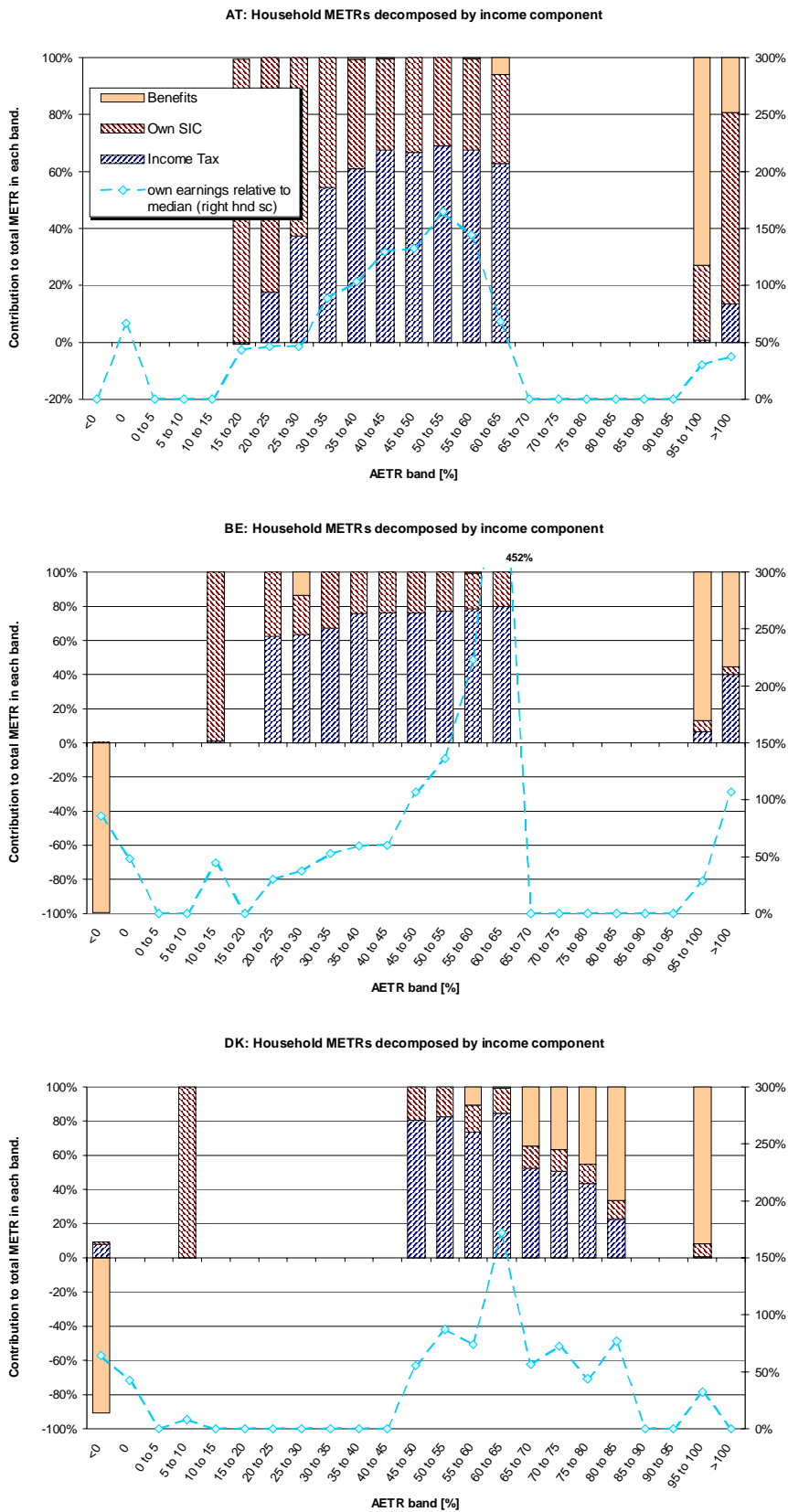
Figure 3.



Source: EUROMOD, author's calculations.

See text for explanations.

Figure 4.



Source: EUROMOD, author's calculations.

See text for explanations. Zero values are shown for METR bands containing fewer than 10 observations.

Graphs need to be read in conjunction with table 8.

Figure 4. (continued)

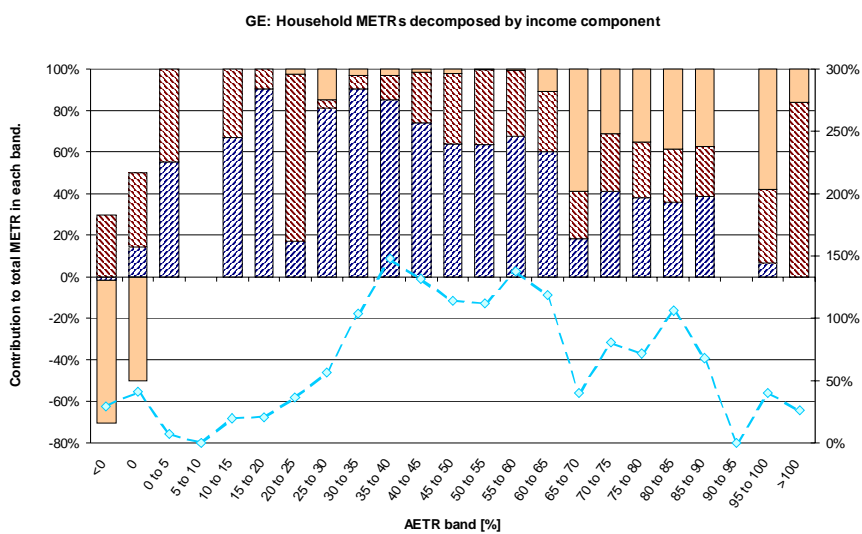
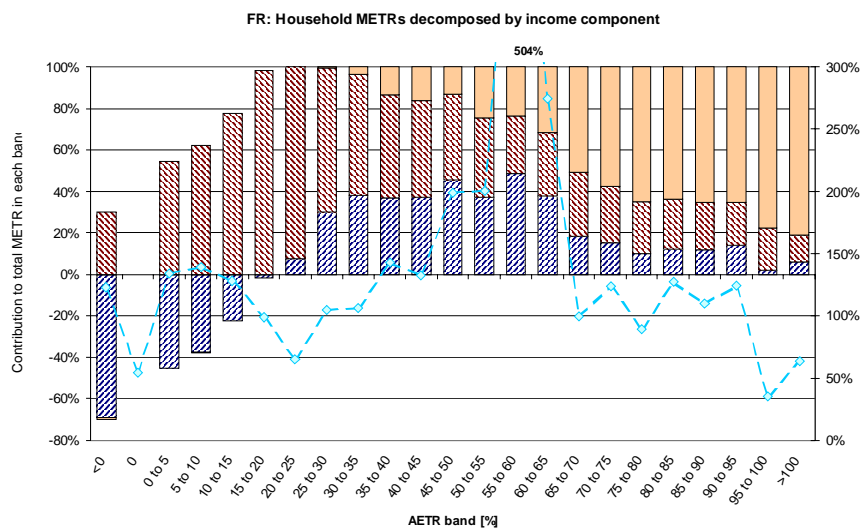
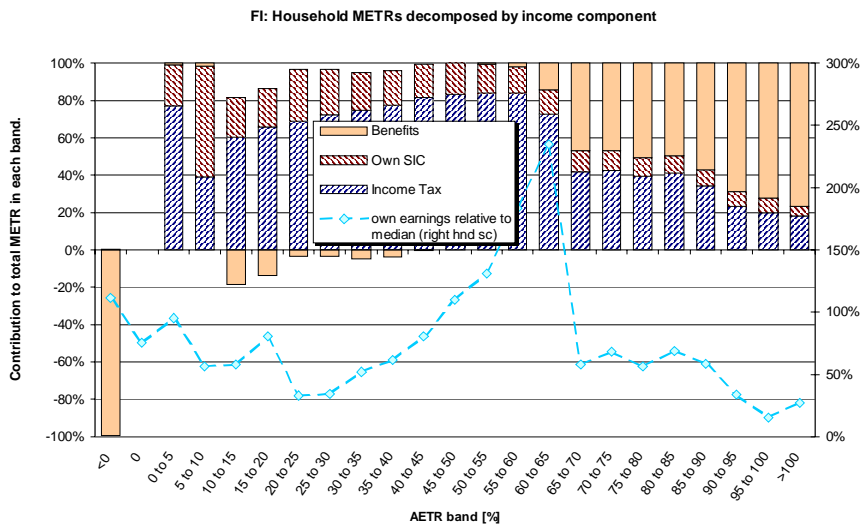


Figure 4. (continued)

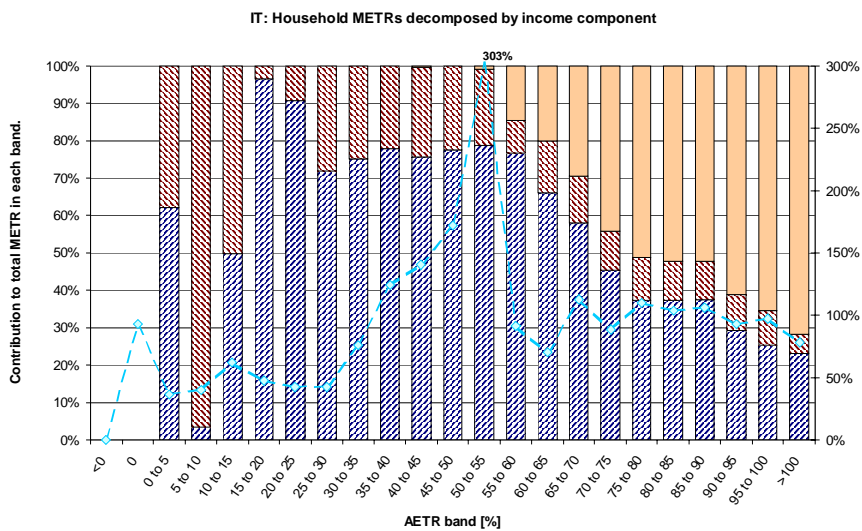
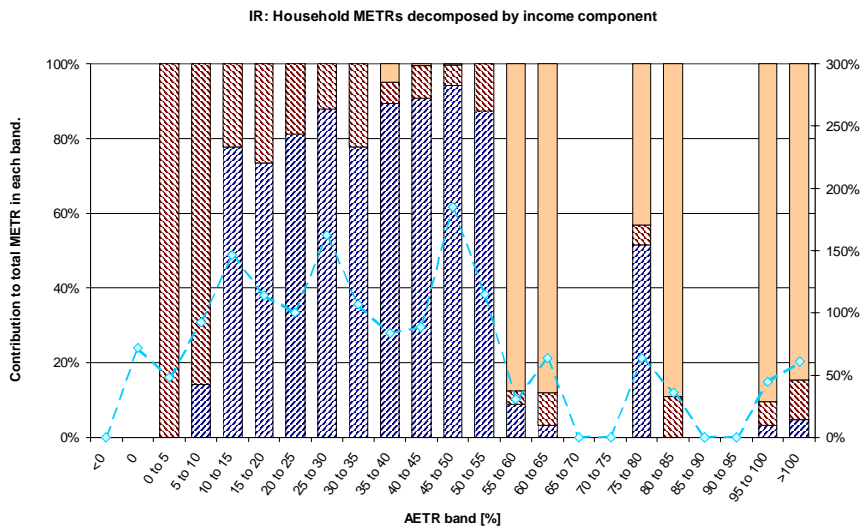
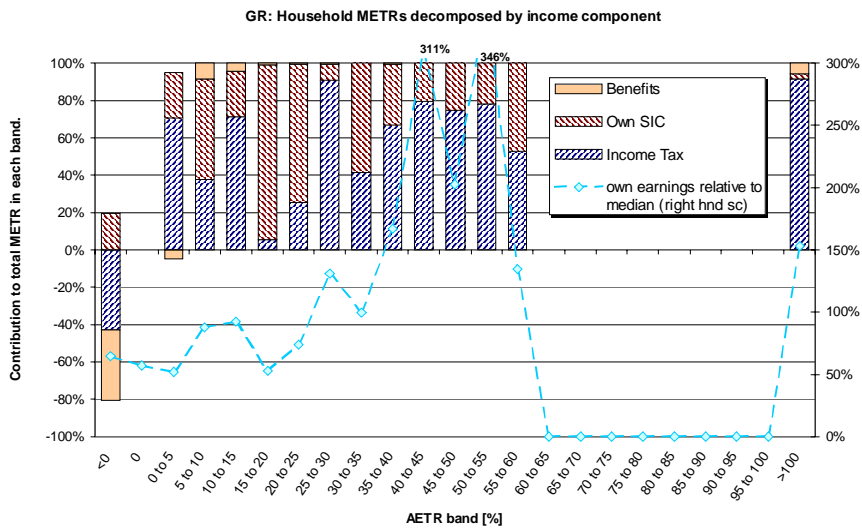


Figure 4. (continued)

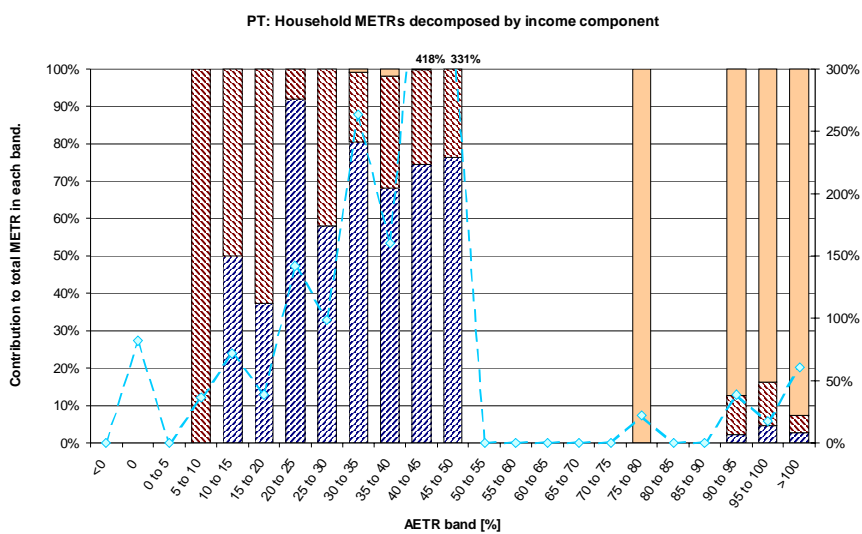
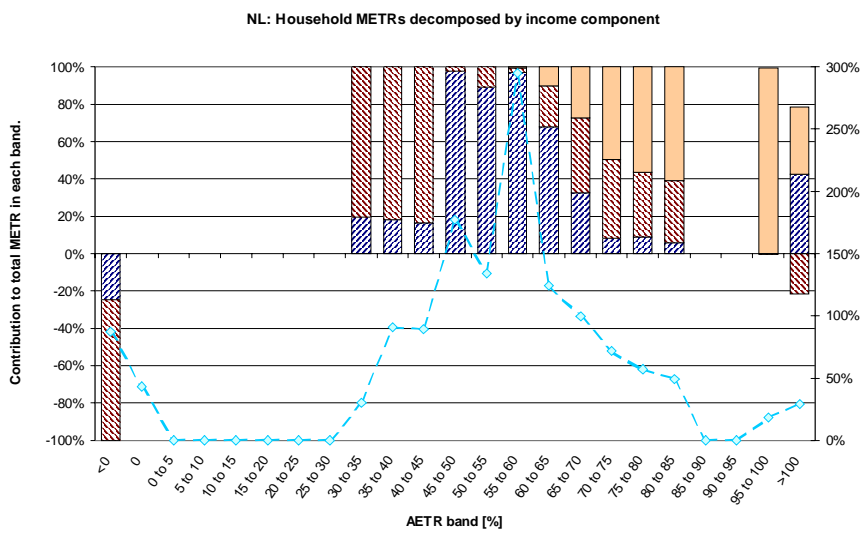
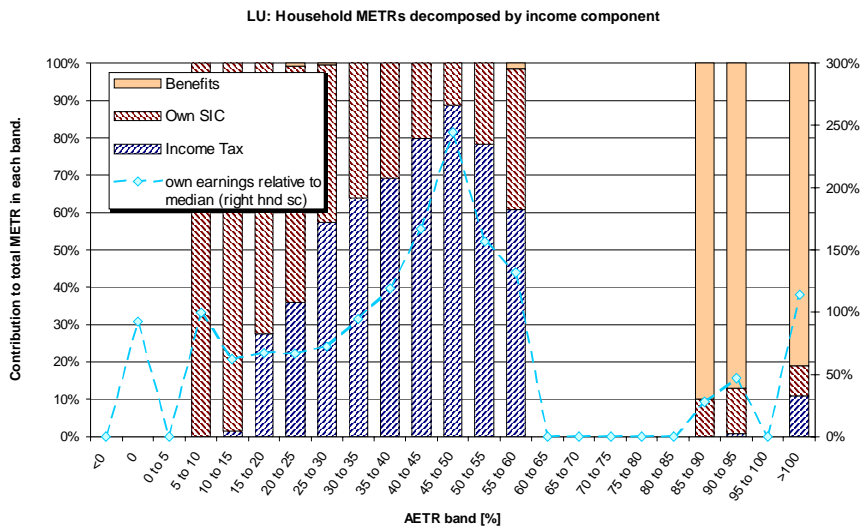
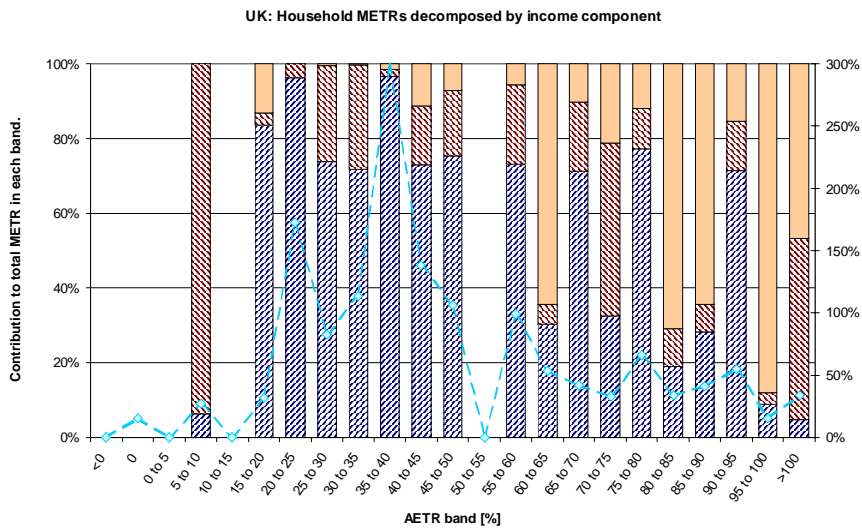
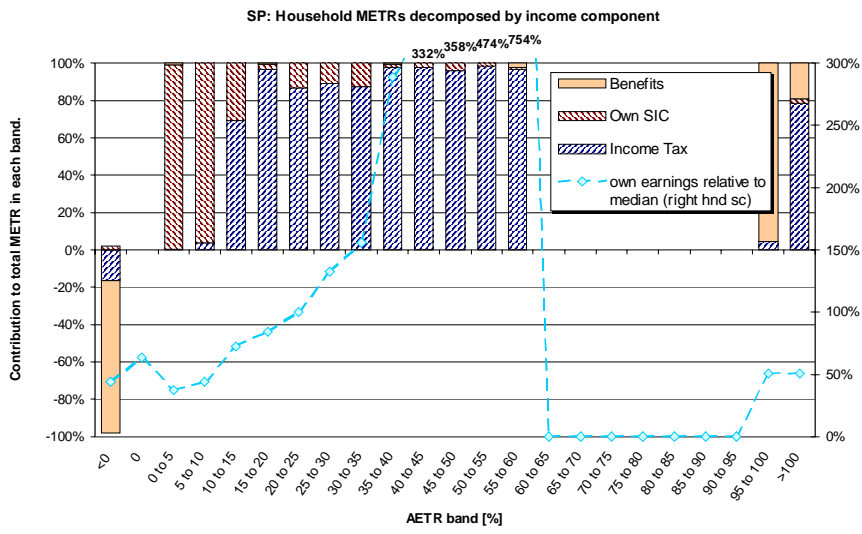


Figure 4. (continued)



Appendix 1. Data Sources.

Country	Base Dataset for EUROMOD	Date of collection	Reference time period for incomes
Austria	European Community Household Panel (W2)	1996	annual 1995
Belgium	Panel Survey on Belgian Households (W6)	1997	annual 1996
Denmark	European Community Household Panel (W2)	1995	annual 1994
Finland	Income distribution survey	1997	annual 1996
France	Budget de Famille	1994/5	annual 1993/4
Germany	German Socio-Economic Panel (W15)	1998	annual 1997
Greece	European Community Household Panel (W3)	1996	annual 1995
Ireland	Living in Ireland Survey (W1)	1994	month in 1994
Italy	Survey of Households Income and Wealth	1996	annual 1995
Luxembourg	PSELL-2 (W5)	1999	annual 1998
Netherlands	Sociaal-economisch panelonderzoek (W3)	1996	annual 1995
Portugal	European Community Household Panel (W3)	1996	annual 1995
Spain	European Community Household Panel (W3)	1996	annual 1995
Sweden	Income distribution survey	1997	annual 1996
UK	Family Expenditure Survey	1995/6	month in 1995/6