

**Income pooling and equal sharing within the
household — What can we learn from the
2010 EU-SILC module?**

2013 edition

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In June 2010, the European Council adopted a social inclusion target as part of the Europe 2020 Strategy: to lift at least 20 million people in the EU from the risk of poverty and exclusion by 2020. To monitor progress towards this target, the 'Employment, Social Policy, Health and Consumer Affairs' (EPSCO) EU Council of Ministers agreed on an 'at risk of poverty or social exclusion' indicator. To reflect the multidimensional nature of poverty and social exclusion, this indicator consists of three sub-indicators: i) at-risk-of-poverty (i.e. low income); ii) severe material deprivation; and iii) living in very low work intensity households.

In this context, the Second Network for the Analysis of EU-SILC (Net-SILC2) is bringing together National Statistical Institutes (NSIs) and academic expertise at international level in order to carry out in-depth methodological work and socio-economic analysis, to develop common production tools for the whole European Statistical System (ESS) as well as to ensure the overall scientific organisation of the third and fourth EU-SILC conferences. The current working paper is one of the outputs of the work of Net-SILC2. It was presented at the third EU-SILC conference (Vienna, December 2012), which was jointly organised by Eurostat and Net-SILC2 and hosted by Statistics Austria.

It should be stressed that this methodological paper does not in any way represent the views of Eurostat, the European Commission or the European Union. This is independent research which the authors have contributed in a strictly personal capacity and not as representatives of any Government or official body. Thus they have been free to express their own views and to take full responsibility both for the judgments made about past and current policy and for the recommendations for future policy.

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Income pooling and equal sharing within the household

What can we learn from the 2010 EU-SILC module?

(Sophie PONTTHIEUX⁽¹⁾)

Abstract: The 2010 EU-SILC thematic module on “Intra-household allocation of resources” was aimed at investigating income organization, household members’ contribution to common expenses, as well as access to and control over money within households. This paper is an exploration of this module.

The first part is centred on the assumptions of income pooling and equal sharing founding the measurement of equivalent income and in turn inter-individual inequality and individuals’ poverty risk. A tentative estimation suggests that these assumptions might be unfounded for about 30% of the households. The second part of the paper, focusing on not retired couples, examines the association between the extent of income pooling and couples’ characteristics. A statistical analysis shows that income pooling is more frequent among married couples, couples with dependent children, or in which only one partner is economically active and less frequent among higher educated or richer couples.

Going along, the paper points at various methodological difficulties and limitations when dealing with “intra-household” issues.

⁽¹⁾ Sophie Ponthieux is senior researcher at the French national statistical institute (INSEE). She would like to thank Tony Atkinson for invaluable comments and suggestions on a prior draft and also Ursula Till-Tentschert for discussing a later draft at the “2012 International Conference on Comparative EU Statistics on Income and Living Conditions” held in Vienna on 6-7 December 2012 (the usual disclaimer applies). This work has been supported by the second Network for the analysis of EU-SILC (Net-SILC2), funded by Eurostat. The European Commission or INSEE bear no responsibility for the analyses and conclusions, which are solely those of the authors. Email address for correspondence: sophie.ponthieux@insee.fr.

1. Introduction

“The mainstream poverty research practice of ignoring the within-household distribution has, according to the critics, two adverse side effects. One, such measurement practice provide biased estimates of the extent of poverty in aggregate. Two, valuable information about the composition of the poor, and relative poverty risk, is ignored”.

These lines, written about 20 years ago by Jenkins (1991, pp. 460), could be written today with no need to change a word. It is not because nothing has changed: since the early 1990s, the question of the allocation of resources within households has attracted a vast amount of literature in economics and sociology (and economic psychology and socio-economics). Standard economics now most often acknowledge the household as “collective” rather than “unitary”, agreeing that it is a combination of distinct individuals who may have different preferences, that the “household” decisions are not necessarily consensual and do not necessarily result in equal outcomes at the individual level. Sociology has shown from the 1960s that the household is a place of bargaining, power relations and self-interests that can be conflicting. A specific strand of literature focusing on the household income organization has shown that control over money and power in decision making may result in very unequal outcomes between the household members (Box 1 provides a brief overview of conceptual approaches to the household). But despite theoretical debates and advances of the last 30 years, standard indicators of poverty or inequality in economic well-being remain based on variables measured at the household level, assuming that all incomes are pooled and that all the household members reach the same level of material well-being (measured by equivalent incomes).

This standard approach makes intra-household inequality virtually impossible - or at least very difficult - to assess. Hence statistics seem to be stuck in the so-called “unitary” model and the household remains largely a “black box”: statistics measure the (monetary) resources that enter the household, can observe some outcomes of the household decisions at the household level; but what happens within the household, how individual resources are actually combined and the outcomes at individual level remain largely unknown⁽²⁾. There are various reasons for this being so. Firstly, there is a long tradition of surveys aimed either at households (surveys on consumption, housing, wealth) or at individuals (surveys on employment, earnings); it is only recently that some surveys offer data collected both at the individual and at the household level. Secondly, collecting data at the individual level is complicated and costly in terms of money for statistical institutes as well as in terms of the burden it could be for the “targets” – for example, imagine detailed questionnaires or diaries about your expenditures (what? how much? for whom?) over a period long enough to make this information useful... Thirdly, even when the information is collected with some degree of detail, as is the case for incomes, it is actually very difficult to know exactly who benefits from some of them – for example, for property or capital incomes, it would require to know exactly who the owner is but even knowing this would not solve the question of whether the owner shares these incomes or keeps them for him/herself; the limitation is the same in the case of some transfers aimed at the household, such as family benefits, for which one has to assume that they are used “at the household level”⁽³⁾.

What is at stake? If poverty measures are biased, “statistics” have to find a way to improve the methodology on which the measurement of economic inequality and poverty is based. This is of particular importance for the assessment of gender or intergenerational inequalities and in turn for public policies. In terms of statistical methodology, this has numerous implications for the measurement of monetary poverty, since actually two crucial, and distinct, assumptions are made: that of income pooling, which justifies the use of equivalence scales; that of equal equivalent incomes for all the household’s members – implemented as if equality was following income pooling while it may not be so – which

⁽²⁾ Until very recently and the development of individual questionnaires, the same comments are applicable to the measurement of material deprivations.

⁽³⁾ There is of course a margin for improvement: for example, taxes on incomes and wealth, systematically assumed to be that of the whole household, or inter-household transfers (especially alimonies), or some social benefits, could be collected at individual level when they are received/paid at individual level. But there, again, aside from the issues of costs and burden, it would not solve the question of whether individual incomes are pooled and equally (or fairly) shared within the household.

justifies that the poverty threshold is computed on the basis of the distribution of equivalent incomes at the individual, not the household, level. For public policies, biased estimates of the extent and the composition of poverty could be misleading in the targeting of policy measures and the choice of appropriate policy tools. Particularly, under the assumptions of income pooling-equal sharing, social transfers, fiscal and redistributive policies do not need to be targeted at one or the other household member since the household response is assumed to be independent of the individual who receives / pays; but under any non-unitary approach the impact of a given benefit might differ depending on the individual of the household who receives it. As for means-tested benefits, which assume income pooling when tested at the household (or family) level, they might miss their targets or have unintended effects (Sutherland, 1997; Bennett & Sutherland, 2011). More generally, improving the measurement of poverty and inter-individual inequality would improve our understanding of the factors and consequences of inequality in terms of individual autonomy and economic dependence.

The 2010 EU-SILC module, aimed at “opening the black box” and progressing towards a better coverage of inter-individuals inequality, was precisely designed in reference to these issues. This was a challenging aim: the issues are complex, hence it is not easy to delimit the questions that would result in usable evidence... neither it is easy to interpret the data. The additional difficulty is to deal with an unusual level: not the household, not the individual, but the interaction of individuals within households; one specific requirement to be able to really go into the “black box” is then to have all the relevant household members covered – as we will see, this was not always the case. Then launching the investigation on such a large scale as 27 countries⁽⁴⁾, which are far from comparable in many ways - especially, for the issues we are dealing with, in terms of living standards but also in terms of institutional and legal settings which may impact the households’ structures and their internal arrangements - was also a challenge in itself. In addition, it may be that variations in the formulation or even the meaning of questions and their understanding result in spurious cross-country comparisons.

For all these reasons, the paper is as much about limitations as about results. The remaining of the paper starts with a short presentation of the module and the variables that will be used. Then the exploration is organized around two methodological questions: 1) To what extent do households’ members pool their incomes, and are we correct or wrong when we compute poverty risk indicators and inter-individuals inequality assuming income pooling and equality within the households? 2) Does a general pattern of associations between individual/household characteristics and the extent of income pooling emerge from cross-country comparisons? Going along these questions, the paper will also point at various methodological difficulties when dealing with intra-household issues... and with EU-SILC.

⁽⁴⁾ Actually 29 countries: the module was implemented in all EU countries, plus Iceland and Norway who participate in EU-SILC. Only the EU member States are analyzed in the paper.

Box 1 – Conceptual approaches to income pooling

In economics, the unitary model of the household considers the household as if it was a single individual *i.e.* maximising one utility function under one budget constraint. For households to function “as if” individuals, two main assumptions are needed: individual preferences have to converge one way or the other, so that the household can be considered a single decision unit; the household members’ resources have to be pooled so that there is only one budget constraint; income pooling then means that how the income is used depends only on the level of the whole/pooled income and the household’s preferences. In this approach, individuals are then not discernible within the household which operates as a “black box”. This model, challenged on methodological (especially Chiappori, 1992) as well as empirical grounds, is now generally considered as not satisfactory. Empirical results tend to show that the household’s allocation of resources may differ depending on who receives an income (*cf.* the emblematic paper of Lundberg *et al* 1997) - while, in principle, this should not happen since household decisions are expected to result only from the household budget constraint - the pooled income - *i.e.* to be independent from whose income it is. Since the 1980s, alternative, non-unitary models have been developed (see a survey by Donni and Chiappori, 2009). These models have in common to consider that each household member (most models consider two decision makers) has his/her own utility function, incomes are not assumed to be pooled, various distributional factors are expected to affect the relative power of the household’s members, hence the household’s decisions.

In sociology (and other social sciences), the household is analysed as a place of bargaining, power relations and interests that can be conflicting. The theory of resources and exchange predicts that the household member with the highest resources - income, education, status - will have more power within the household (Blood and Wolfe, 1960). A distinction is made between “orchestration power” as control over important decisions and “implementation power” as control over daily/repetitive decisions which generally would correspond to time consuming tasks (Safilios-Rothschild, 1976). These early analyses were very influential in a strand of literature centred on the division of labour (especially domestic tasks and care-work) within the household. Another specific strand of literature, directly related to the thematic of the module 2010, focuses on money in marriage and couples’ income organization (Pahl, 1983, 1989, 1995; Burgoyne, 1990; Vogler and Pahl, 1994). Pahl (1983) defined a very influential classification, based on in-depth interviews, reflecting what happens to money when it enters the household and gradations of control over money. This classification distinguished initially between four main systems: the “whole wage” and the housekeeping allowance systems (two systems in which one partner controls the amount of household money), the shared or pooled system (both partners manage and use the money as they need) and the independent management system (each partner keeps separate control over their income). It remains a reference (see Vogler, 2005), widely used in quantitative sociology as well as in economics: almost all recent empirical work refer to it (e.g. Bonke and Uldall-Poulsen, 2007; Laporte and Schellenberg, 2011; Lyngstad *et al.*, 2011), and earlier work (Woolley and Marshall, 1994) suggest a way to use it as a measure of intra-household inequality.

2. Short presentation of the module and methodological points

This section focuses on the questions used to investigate the extent of income pooling and equal sharing and on the target population(s).

2.1 Main questions used in the analysis and some warnings

The module includes two questionnaires, one at the household level, the other at the individual level, distinguishing individuals living in couple from other individuals. At household level, the core question (HA010) asks whether incomes are treated as fully collective, partly collective or completely private; another set of questions (HA020-HA070) seeks to identify who in the household is in charge of managing the common finances. At individual level, the main questions are about the extent of personal incomes kept from the common pool (PA010), whether the person has access to a bank account (PA020) and how she perceives her ability to decide about her own expenses (PA090). In addition, couples' partners were asked various questions aimed at measuring a balance of power in decision making (PA030-PA080)(5). Only three of all these questions are used in the paper; they are briefly presented here, as well as the reasons why the others were not examined.

To examine the extent of income pooling we rely on two questions. The first one, used all along the paper, is the question about the household regime of finances, or pooling regime, which is asked at household level:

(HA010) - Regime of household finances.

Suggested wording: "How are the incomes you receive in your household dealt with?"

- 1 We treat all incomes as common resources
- 2 We treat some incomes as common resources and the rest as private resources
- 3 We treat all incomes as private resources of the person receiving it
- 4 We do not receive any income in the household

The proposed responses, derived from a classification proposed by Pahl in 1983, have become almost "standard" in the literature on couples' arrangements for money. We will refer to them as "full pooling", "partial pooling" and "no pooling". Taken at face value, they have very different implications in terms of intra-household inequality: Full pooling would correspond to a situation in which all the incomes of all the household's members are pooled and used by any member for common or personal expenditures – i.e. all have full access to the pooled income whatever the individual contribution to the pool might be. It also means that all the household's members are subject to a unique budget constraint. Under the regime of partial pooling, the household's members contribute to the pool only up to a share of their own income and keep the rest (that they can use as they want – this not necessarily meaning that they spend it all on themselves) from the pool. A given household member has then access to only a share of the others' incomes, the share they have contributed to the pool and a priori only for common (or dedicated) expenses. No pooling means no income pooled at all, and that no household's member has access to the income of another – suggesting that the household's members have to organize for common expenses. In partial pooling and no pooling, differences in individual income levels or the share each one contributes to / keeps from the pool might be a source of inequality between the household's members or not, depending on the respective incomes of the household's members, the share they keep or pool and the arrangement for common consumption.

At individual level, a "companion" question asks the persons the share of their own income they keep from the common pool:

⁽⁵⁾ There was also a set of optional questions on time-use and spending but only 12 countries opted to implement them (cf. European Commission, 2012). They will not be examined here.

(PA010) - Proportion of personal income kept separate from the common household budget.

Suggested wording: "What proportion of your personal income do you keep separate from the common household budget?"

- 1 All my personal income
- 2 More than half of my personal income
- 3 About half of my personal income
- 4 Less than half of my personal income
- 5 None
- 6 The respondent has no personal income

The question was to be understood as the share of own income "not put in the common pot" which does not mean the same as the share of income spent by the person on herself. According to the assessment of the module (cf. European Commission, 2012) there seems to have been variations in the wording of the question which make difficult to assess whether its meaning was always actually understood in the same way (e.g. Poland: "What proportion do you keep for your personal disposition", Latvia: "... allocate to yourself only"). But more than variations in wording, there are also countries where the question clearly did not have the same meaning: the worst case is that of France, asking the share of own income used for self-expenses (clothes, leisure, personal savings...), which is clearly not the same as keeping one's income from the common pool; as for Austria and Ireland, the question was asked from the other point of view, i.e. the share of the income pooled (not the share kept) – in a way, it is the same meaning and should give the same (opposite) response as with the suggested wording except that since it is clearer, there is less doubt about the understanding than with other countries. All these small or large differences will result in limited comparability.

The second methodological point is that of the extent of intra-household equality. There is no question in the module which would give a direct answer, so we will use as a proxy the question, at individual level, about the ability to decide of one's own personal consumption:

(PA090) - Ability to decide about expenses for own personal consumption, leisure activities and hobbies.

Suggested wording: "Do you feel free (i.e. without asking the permission of other household members) to spend money on yourself for your personal consumption, your leisure activities and hobbies?"

- 1 Yes, always or almost always
- 2 Yes, sometimes
- 3 Never or almost never

The response will be used as a proxy for the perception a person has of her autonomy in deciding for herself; this would allow to identify households where some individuals feel more (or less) often free than others, as opposed to households where all share the same feeling. However, the understanding of the question is difficult to assess: some may have understood feeling free about "what" they can spend without asking for permission (under a given budget constraint) when others may have understood it uniquely in terms of budget constraint. There again, variations in the wording leave room for different understanding between the suggested "do you feel free..." and (Austria) "can you freely decide..." or between the suggested "without asking the permission" and (Estonia) "without consulting" or (France) "without asking the opinion" (cf. Assessment, European Commission 2012 p. 42).

As for the questions not used:

- at household level: we have not examined the questions on the management of common finances (HA020-HA070) not primarily related to our methodological questions. In addition, a quick look at the responses shows for some countries some puzzling discrepancies between the proportion of households who reported "there are no common household finances" and that of households who reported no income pooling in response to HA010, suggesting a degree of confusion between "no common household finances" and no income at all hence nothing to manage. It would have been clearer to ask the question only to households having an income and reporting at least some pooling.

- at individual level: question PA020 on access to a bank account was also left aside since it did not seem

of direct interest for our questions. A quick check of the responses shows huge cross-country differences: about 100% individuals interviewed report having access in Sweden, about 75% report not having access in Bulgaria. These extreme values probably combine a “selected respondent” effect on one side and a possible effect of a much less developed banking system in Bulgaria (the same for Romania). More generally, the responses would be difficult to interpret either in terms of income pooling or equal sharing without additional information on the possession of a personal bank account and the existence of a joint account (and joint between whom). As for questions PA030-PA080 on decision making by couples’ partners, this is a whole, and different, subject in itself.

2.2 Target population and units of analysis

While it is obvious that pooling and sharing can occur only between several individuals, defining the relevant targets among the remaining households and individuals is not so obvious. According to the module’s guidelines, target households were defined as households with at least two persons aged 16+, target individuals as persons aged 16+, and target partners as persons aged 16+ living in target households having a partner living in the same household.

This definition of targets did not seem optimal considering the issues under investigation: individuals aged 16+ include dependent children, defined as individuals living with at least one parent and aged either less than 18 or from 18 to 24 and not in employment (according to definition used for the household breakdowns implemented in SILC, cf. European Commission, 2009). Then one share of the individuals, all those aged from 16 to 18 and some of those aged from 18 to 24 are – if we are consistent with SILC standard household breakdowns – dependent children. We have considered that it was not relevant to count dependent children – i.e. individuals considered (by construction) to be fully dependent hence not expected to contribute any income to the common pool – to define target households. In addition, we differ slightly from the standard definition of a dependent child, since we do not consider as “dependent children” those who have a partner living in the household (because it cannot be assessed whether they are dependent on their parent(s) or their partner).

Consequently, the analysis is limited to households with at least two “adults”, defining an adult as an individual who is not a dependent child. In turn, target individuals are re-set as “adults”. They will be referred to after as “target households” and “target individuals”. This change of target results mainly in the exclusion of single parent households, which count by definition only one adult (since they are defined as one parent plus her/his dependent children).

For obvious reasons, the analysis takes into account only the households (and the corresponding “adults”) for whom the response to PA010 (pooling regime) is not missing; it also excludes the households who reported “no income”. Appendix 1 details the steps from the module’s targets to the paper’s targets.

The analysis of income pooling regimes requires also being able to distinguish between household types. But the existing SILC variable “household type” (HX060) is not relevant, since it is only a breakdown by number of adults and dependent children, not distinguishing families from other types of households, neither partners from any two adults. We have then constructed a classification distinguishing couples from other households of 2 adults, nuclear families from extended families (e.g. couples or parents living with non-dependent children or with their own parents) and other types of households. There are some other family characteristics that could be especially interesting to investigate, such as “blended” or “patchwork” families; but they are very difficult to identify in EU-SILC because there is no systematic distinction between natural and step children then it was not possible to consider them. It was also not possible to track family ties other than between partners and parents-children (siblings cannot be identified if they do not live with their parents).

To finish, one has to keep in mind that, as mentioned above, the “intra-household” is a complicated level of analysis since it is a combination of individuals within a household. A serious limitation here comes from the fact that for significant shares of households in some countries, there was only one respondent at the individual level. This is, necessarily, the case of all countries using a “selected respondent” approach (Denmark, Finland, The Netherlands, Sweden and Slovenia) but there are also countries with many missing values in the individual questionnaires: France (no proxy), Sweden (among selected respondents) and The United-Kingdom (especially among older persons).

3. First steps in exploring the black box: pooling regimes and (in)equality within households

3.1 Pooling regimes

3.1.1 Assessment based on household level variable

When asked about their organization for incomes (question HA010), a majority of households report that all incomes are treated as common resources (full pooling, FP). These households represent from a minimum 52% of the target households in Austria (AT), to a maximum of 88% in Romania (RO), the mean of the 27 countries being about 70% (Table 1). The remaining households are unequally distributed between those who report partial pooling, with a mean of 22%, and no pooling with a mean of 7%, again with noticeable differences between countries.

Table 1: Distribution of households by pooling regime (%)

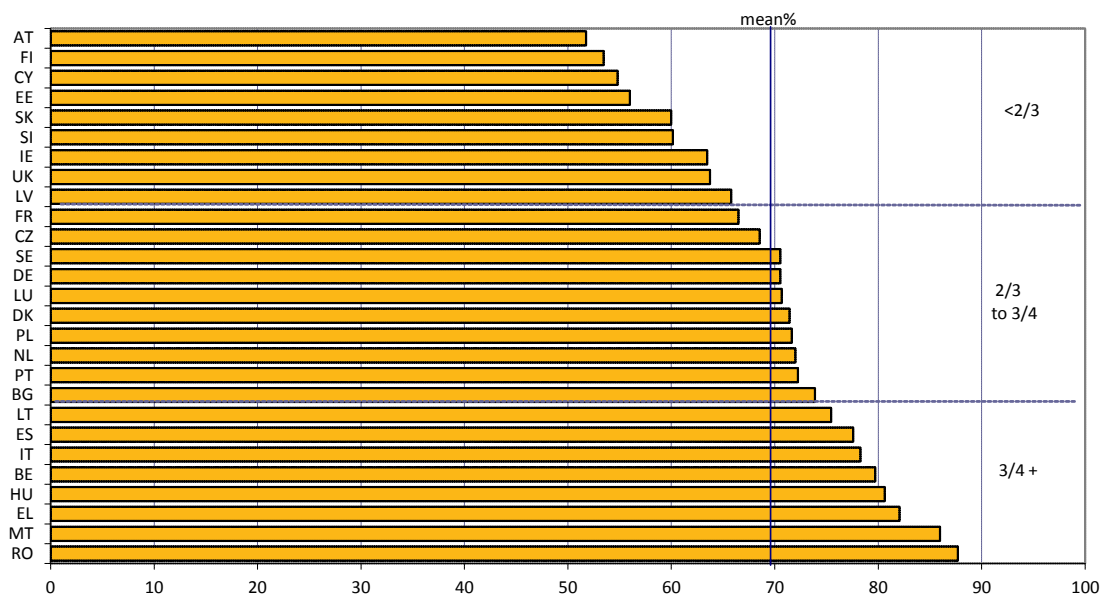
	Full pooling	Partial pooling	No pooling
AT	51,8	24,9	23,4
BE	79,7	12,8	7,5
BG	73,9	24,8	1,4
CY	54,8	43,7	1,5
CZ	68,6	29,2	2,3
DE	70,6	21,0	8,4
DK	71,4	19,6	9,0
EE	56,0	38,4	5,7
EL	82,1	15,0	3,0
ES	77,6	18,7	3,8
FI	53,5	35,6	11,0
FR	66,5	16,5	17,0
HU	80,6	16,6	2,8
IE	63,5	11,5	25,0
IT	78,3	12,8	8,9
LT	75,5	21,3	3,2
LU	70,7	17,9	11,4
LV	65,8	26,2	8,0
MT	86,0	10,0	4,0
NL	72,0	20,8	7,2
PL	71,6	24,9	3,5
PT	72,3	22,6	5,1
RO	87,7	11,3	1,0
SE	70,6	23,9	5,6
SI	60,1	25,9	14,0
SK	60,0	37,4	2,6
UK	63,8	25,9	10,4
mean	69,8	67,5	21,6

(*) In France, the question was asked with more modalities –

Source: EU-SILC, UDB2010 release 2, Population: Target households.

Cross-country differences are difficult to interpret. No clear regional pattern emerges when countries are ranked according to the share of full pooling households (Figure 1); the highest shares are observed for in Southern/Mediterranean countries... but also in Belgium (BE) or Hungary (HU) and not in Portugal (PT). According to the literature, there are many reasons for pooling or not (infra), so the differences may reflect many things, starting with the households' structure (demographic – couples/with or without children / 3 generations and complex households, economic – especially the number of earners and the whole household income level), institutional/cultural features or national living standards (and not forgetting that the question may have been asked/understood differently depending on the mode of collection and collection instructions).

Figure 1: Share of households reporting full pooling (%)



Source: EU-SILC, UDB2010 release 2, Population: Target households.

3.1.2 Do individuals pool? Responses at individual level

Another way to look at the extent of income pooling in households consists in using the information collected at individual level with question PA010 on the share of personal income kept separate from the common pool.

The proportion of adults living in target households reporting to keep none of their income from the common pool is on average 44%, against 39% reporting that they keep some and 9% that they keep none; the remaining (about 8% on average) corresponds to respondents reporting they have no income at all (Table 2). As was observed at household level, variations between countries are huge. However, some of them puzzling, even more since they are larger than that observed at household level: leaving France aside - for which we know that the meaning of the question was not the same, the very low level of individuals reporting to keep none of their income from the common pool in Slovenia (SI) and to a lesser degree Finland (FI), Malta (MT) raises questions.

What is the link with the household pooling regime reported at household level? Logically, no individual living in a full pooling household should keep any of his/her income from the pool, individuals living in partial pooling households should keep some of their income and those living in no pooling households should keep all. Discrepancies were to be expected, but a comparison of tables 1 and 2 shows that they are large: the average percentage of households reporting full pooling is 70%, but the average percentage of individuals who report to keep none of their income from the pool is only 44%. The gap between the

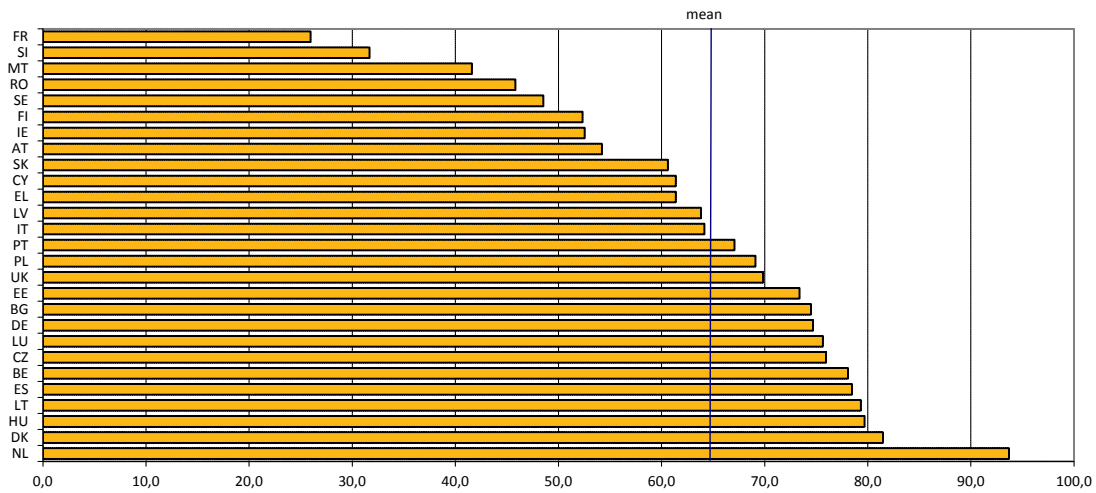
two approaches is even higher in Malta (MT), Romania (RO), Slovenia (SI) then in Greece (EL), Latvia (LV) and Italy (IT).

To better assess (in)consistencies between responses at household and at individual levels, we use an indicator of “consistency” equal to 1 if the individual’s response is consistent with his household response 0 otherwise (e.g. an individual living in a full pooling household is expected to keep none of his income from the pool); we have considered that individuals reporting no income were always consistent with their household pooling regime (Figure 2). The share of “consistent” individuals goes from less than half the individuals in 6 countries (5 if we exclude France) to more than 90% in The Netherlands (NL).

Table 2: “Poolers” at individual level (%)

	Share of own income kept from the pool			No income
	none	some	all	
AT	38,3	50,6	5,4	5,8
BE	57,9	14,3	15,3	12,5
BG	54,0	28,3	6,3	11,4
CY	31,9	39,3	14,9	14,0
CZ	56,5	30,7	9,7	3,1
DE	66,5	17,2	9,4	6,9
DK	64,5	29,2	5,6	0,7
EE	39,5	37,7	14,2	8,7
EL	38,5	32,2	14,9	14,5
ES	64,3	12,4	8,4	14,9
FI	16,6	76,1	6,5	0,8
FR (*)	7,8	85,2	2,8	4,2
HU	70,0	22,9	3,9	3,3
IE	53,2	33,3	13,5	0,0
IT	43,1	29,0	9,5	18,5
LT	68,3	21,1	3,8	6,9
LU	56,8	17,7	13,7	11,8
LV	28,6	49,7	5,5	16,3
MT	14,7	45,2	21,1	19,0
NL	68,6	14,7	8,3	8,4
PL	55,8	24,6	9,6	10,0
PT	54,7	17,5	17,0	10,8
RO	26,5	54,1	7,0	12,5
SE	24,2	65,0	10,3	0,5
SI	7,2	84,4	5,1	3,3
SK	32,9	55,4	7,3	4,4
UK	53,3	30,4	13,4	2,9
mean	44,2	37,7	9,7	8,4

(*) The question asked did not have the same meaning. Source: EU-SILC, UDB 2010 release 2, Population: Target individuals.

Figure 2: Share of individuals consistent with their household pooling regime (%)

Source: EU-SILC, UDB 2010 release 2, *Population*: Target individuals.

By household pooling regime, consistency between individual responses and the household's appears better for individuals living in partial pooling households, then in full pooling households; in both cases, more than half the individuals living in these households report to keep a share of their incomes consistent with the household pooling regime. It is lower in the case of individuals living in no pooling households (Table 3). There are some puzzling figures (France aside): the very low consistency among individuals from full pooling households / very high among individuals from partial pooling households in most "selected respondent" countries, and the very low share of "consistent" individuals in no pooling households in Austria (AT), Ireland (IE) and Sweden (SE).

Table 3: Consistency of individuals' response by household pooling regime (%)

	All	Full pooling	Partial pooling	No pooling
AT	54,2	65,7	70,5	13,5
BE	78,1	82,5	59,7	65,5
BG	74,5	78,0	66,4	66,8
CY	61,4	61,0	61,7	62,7
CZ	76,0	80,2	67,9	74,2
DE	74,7	87,5	48,0	35,8
DK	81,5	86,3	83,9	36,1
EE	73,4	71,6	76,6	66,4
EL	61,4	60,3	65,7	64,5
ES	78,5	90,2	47,3	32,5
FI	52,3	29,4	93,2	30,9
FR (*)	26,0	13,8	93,3	8,8
HU	79,7	84,8	63,1	52,1
IE	52,5	71,4	45,9	12,2
IT	64,2	68,6	58,3	38,3
LT	79,3	88,2	59,1	32,5
LU	75,6	85,5	54,9	52,0
LV	63,8	58,0	84,3	35,0
MT	41,6	36,5	67,4	76,5
NL	93,7	99,4	72,3	97,8
PL	69,1	76,0	56,6	33,2
PT	67,1	78,1	39,6	73,5
RO	45,8	40,5	77,5	29,6
SE	48,5	32,7	92,8	13,2
SI	31,7	12,4	88,3	36,6
SK	60,6	51,4	73,2	50,2
UK	69,9	75,4	64,4	50,0
mean	64,3	65,4	67,8	47,7

Reading: In Austria (AT), 65.7% of the target individuals who report to keep a share of their income live in a full pooling household.

(*)Not the same question. Source: EU-SILC, UDB 2010 release 2, Population: Target individuals.

While inconsistencies do not allow any definitive conclusion in terms of “true” pooling regime, they show at least that using household level information or individual level information does not result in the same picture. But cross-country differences in inconsistencies are somewhat disconcerting: do they result from the household respondent and/or the individual respondents having misunderstood the question? Do they signal that one or several individuals of the household misread the actual extent of pooling within their household(6)? And does the lower share of “consistent individuals” in households who report no pooling indicate a reluctance to report that one does not contribute to the common pool? All these points would need be investigated further.

3.1.3 Households' pooling regimes defined by individual level variables

Assessing households pooling regimes on the basis of individual level information requires a change of unit of observation: it is now not the individuals' responses we are interested in but their combination within their households and whether they are consistent within households (a different sort of consistency than above). The level of analysis shifts from that of the individual to that of the household.

⁽⁶⁾ Other results not presented here suggest that cross-country differences do not seem to be attributable to the number of respondents in the household: the gaps remain of the same extent when individual/households responses are compared only for households with more than one respondent at individual level – this verification being of course not possible for “selected respondent” countries.

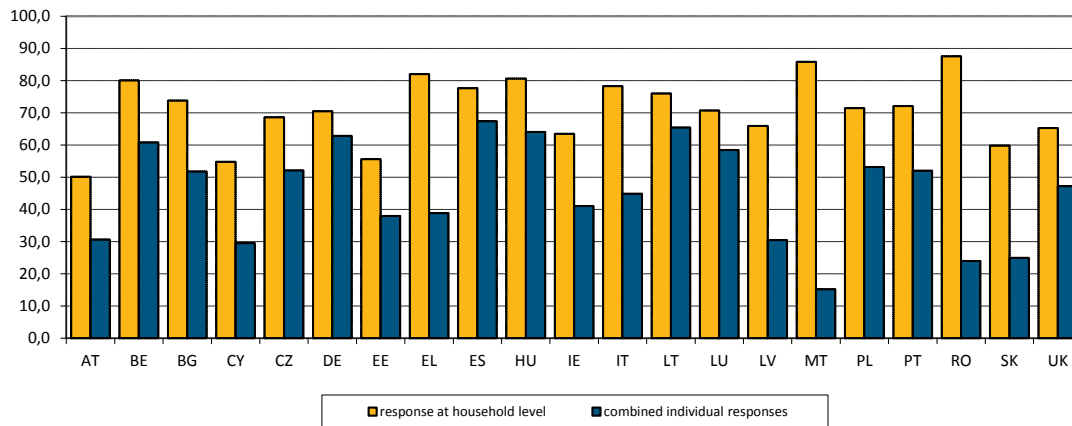
Within households consistency is assessed by the fact that all the household members report to keep all or some or none of their personal income (considering that individuals reporting no income are always consistent with what the others in their household report) accordingly with the pooling regime reported at household level. On the basis of the individuals responses, the household pooling regime will then be said full pooling if no individual within the household reports to keep some or all of his income, it will be said partial pooling if no individual reports to keep none or all of his income, and no pooling if no individual reports to keep none or some of his income. The household pooling regime is said “not consistent” when the individual responses diverge - this of course can never happen in countries using a “selected respondent” since there is only one respondent by household, nor, in other countries, if there is only one respondent and missing values for the other household members. Table 4 shows the distribution of the households in these 4 regimes.

Table 4: Households pooling regimes based on individual responses (%)

	All households				Households with at least 2 respondents			
	Full pooling	Partial pooling	No pooling	not consistent	Full pooling	Partial pooling	No pooling	not consistent
AT	37,4	42,2	1,3	19,1	30,6	40,6	0,9	28,0
BE	60,8	11,8	11,4	16,1	60,8	11,7	11,2	16,4
BG	51,9	17,8	4,1	26,3	51,8	17,8	4,1	26,3
CY	29,5	35,3	2,3	33,0	29,5	35,3	2,3	33,0
CZ	52,2	21,9	5,6	20,3	52,1	21,9	5,5	20,6
DE	63,3	13,7	2,6	20,4	62,8	13,8	2,6	20,8
DK	66,8	27,9	5,3	0,0				
EE	44,1	28,8	11,0	16,1	38,0	31,7	11,1	19,2
EL	38,9	25,9	7,9	27,3	38,9	25,9	7,9	27,3
ES	67,9	8,1	1,5	22,5	67,4	8,0	1,4	23,1
FI	22,1	71,8	6,1	0,0				
FR	10,2	82,6	2,1	5,1				
HU	64,0	14,0	2,1	19,9	64,1	14,0	2,0	19,9
IE	41,0	23,2	2,0	33,8	41,1	23,2	1,9	33,9
IT	44,9	25,6	3,6	25,9	44,9	25,6	3,6	25,9
LT	66,0	12,4	2,1	19,5	65,4	12,1	2,2	20,3
LU	58,5	15,3	5,7	20,5	58,5	15,4	5,5	20,6
LV	30,9	45,7	3,7	19,7	30,5	45,9	3,7	19,9
MT	15,5	45,9	7,6	31,0	15,2	46,1	7,5	31,2
NL	78,2	13,9	7,9	0,0				
PL	58,4	17,4	7,7	16,5	53,2	15,5	6,2	25,2
PT	52,2	11,6	9,1	27,1	52,0	11,7	9,1	27,2
RO	24,9	50,2	5,4	19,5	24,0	50,7	5,5	19,8
SE	33,9	57,1	9,0	0,0				
SI	17,4	77,9	4,7	0,0				
SK	25,2	41,3	2,9	30,5	25,0	41,4	2,9	30,8
UK	48,6	24,1	8,3	19,1	47,3	22,6	6,9	23,3
mean	44,6	32,0	5,3	18,1				
mean 21 (*)	46,5	25,3	5,1	23,0	45,4	25,3	4,9	24,4

(*) Excluding the “selected respondent” countries and France. Source: EU-SILC, UDB 2010 release 2, Population: Target households.

Figure 3: Full pooling households defined by households or individual responses (%)



Source: EU-SILC, UDB 2010 release 2, *Population*: Target households, excluding the “selected respondent” countries and France.

Finally, if the pooling regimes were defined on the basis of individual responses and not on the basis of a single response at household level as with question HA010, the share of full pooling and no pooling households would be lower and that of partial pooling households higher. Figure 3 compares the shares of full pooling households obtained in each approach, excluding the “selected respondent” countries and France for which this comparison has no interest.

3.2 A tentative measure of wrongly assumed full pooling

The aim in this section is to test a measure of potential error when computing equivalent incomes and individual poverty risk on the basis of households incomes as if all households were full pooling households.

The margin of error is computed as the share of individuals wrongly assumed to live in full pooling households in the total population. We use alternatively the shares of pooling regimes obtained from household level responses to question HA010 and that derived from individual level responses to question PA010. Using HA010, the proportion of individuals potentially subject to error based on household level information is then simply the proportion of individuals who do not live in a household reporting full pooling, including all the individuals of these households, not only target individuals, in all the households, not only target households. The households that are not in the target and the individuals living in these households are considered, by construction, not subject to any error. The pooling regime built on the basis of PA010 has no meaning if there is only one respondent in the household - hence the “selected respondent” countries are not taken into account. For the other countries, in the case of households with only one respondent, we have assumed for the computation that the distribution between correct and wrong assumption of income pooling was the same than that observed among the households with at least two respondents. Table 5 shows the proportions of households wrongly assumed to be full pooling households and the corresponding proportions of individuals it represents in the whole population.

Table 5: Shares of households and individuals possibly wrongly assumed to be / live in full pooling households (%)

measure based on	% of households				% of individuals			
	Household response		combined individuals		Household response		combined individuals	
	correct	wrong	correct	wrong	correct	wrong	correct	wrong
AT	70,9	29,1	58,2	41,8	60,1	39,9	43,5	56,5
BE	88,0	12,0	76,9	23,1	84,5	15,5	68,7	31,3
BG	79,8	20,2	62,6	37,4	73,5	26,5	53,3	46,7
CY	65,8	34,2	46,7	53,3	58,1	41,9	35,3	64,7
CZ	77,4	22,6	65,6	34,4	71,8	28,2	57,0	43,0
DE	83,9	16,1	79,7	20,3	77,6	22,4	72,2	27,8
DK	86,4	13,6			81,4	18,6		
EE	73,7	26,3	63,0	37,0	64,8	35,2	51,2	48,8
EL	86,1	13,9	52,5	47,5	83,5	16,5	43,5	56,5
ES	82,4	17,6	74,4	25,6	79,1	20,9	69,0	31,0
FI	74,8	25,2			66,7	33,3		
FR	80,2	19,8			74,3	25,7		
HU	86,2	13,8	74,3	25,7	82,8	17,2	67,7	32,3
IE	75,3	24,7	60,2	39,8	72,2	27,8	52,9	47,1
IT	86,0	14,0	64,4	35,6	81,9	18,1	54,1	45,9
LT	84,7	15,3	78,4	21,6	78,7	21,3	70,3	29,7
LU	80,4	19,7	72,2	27,8	75,9	24,1	64,6	35,4
LV	77,5	22,5	54,2	45,8	69,7	30,3	40,4	59,6
MT	89,3	10,7	35,6	64,4	88,0	12,0	24,0	76,0
NL	83,1	16,9			77,3	22,7		
PL	79,3	20,7	65,8	34,2	71,5	28,5	54,6	45,4
PT	78,6	21,4	63,0	37,0	73,5	26,5	55,0	45,0
RO	91,0	9,0	44,5	55,5	86,9	13,1	32,3	67,7
SE	86,1	13,9			82,4	17,6		
SI	72,6	27,4			64,8	35,2		
SK	70,8	29,2	45,2	54,8	62,3	37,7	32,5	67,5
UK	78,2	21,8	68,3	31,7	72,9	27,1	59,5	40,5
mean	80,3	19,7	37,8	37,8	74,7	25,3	47,5	47,5

Source: UDB2010 release 2, *Population*: All households and all individuals.

Depending on whether the assessment is based on household or individual level information, the potential for error could concern from about 20% to about 38% households. This represents from about 25% to about 47% individuals who could in turn be wrongly assumed to live in full pooling households (there are again significant cross country differences with both measures). In terms of measurement of inequalities in economic well-being, the wrong assumption of income pooling would mean that there is no foundation to attributing to all these individuals their household equivalent income. This suggests that inequalities between individuals could be under estimated.

As a result, and taking the information about pooling regimes at face value, individuals could be misclassified when considered poor/not poor with the current methodology. However, in terms of simple computation, the share of individuals wrongly assumed to live in full pooling households does not give the share of individuals wrongly assessed to be poor or not poor, it just gives the share of households for which the correct basis for computing an equivalent income might not be the household's whole income.

There are other reasons for cautiousness: pooling regimes, either defined at household or individual level, have been taken so far at face value. This means assuming that, in full pooling households, all the (relevant) individuals can access and use the common pool for common but also for personal expenditures. But on second thoughts, is it really what goes on? If full pooling assessed at household level means theoretically full access to the common pot it does not necessarily follow that all the household members feel equally entitled to access and actually use the money from the pool. One may also have second thoughts about the approach based on individual level information; especially, keeping all one's income from the pool does not necessarily mean using it all only on personal spending or savings. And on the contrary, partial pooling and no pooling regimes could very well result too in equality, depending on the arrangement between the household's members.

3.3 Households pooling regime and intra-household inequality

One way to assess whether intra-household equality follows “full pooling” would be to have some available information, at individual level, about a relevant outcome. We will use question PA090 as such a relevant outcome and an indicator of potential intra-household equality. In this question, the persons were asked whether they feel free to decide always/sometimes/never about spending for themselves.

3.3.1 Individuals’ perception of their ability to make decisions about their own consumption

Firstly, we just look at the distribution of individuals’ responses and whether they vary depending on their household pooling regime (using the household pooling regime assessed at household level). In their majority, respondents report to feel “always” free in their decisions about their own expenses: the mean percentage over the 27 countries is about 75%. Five countries are notably under this mean: Bulgaria (BG) and Romania (RO), with less than half the target individuals reporting to feel always free, and Greece (EL), Italy (IT) and Latvia (LV) with less than 60%. At the other end, the mean percentage of persons who report to feel “never” free is only about 8% - much higher in the five countries indicated above (Table 6). Taking into account the household pooling regime shows that the share of individuals feeling “always” free tends to be always higher in partial pooling or no pooling households (depending on the country) than in full pooling households. This could signal that feeling entitled to use some money from the pool does not necessarily follows living in a full pooling household (taking full pooling at face value).

But as mentioned previously, there can be different interpretations of what “feeling free to decide about one’s own expenses” means: one is that it means feeling entitled to make autonomous decisions (the intended meaning); the other is that it means feeling free of a budget constraint. Feeling free of a budget constraint is more likely for those living in better off households, so one could expect differences between individuals living in poor or not poor households. Feeling always entitled could result from many factors, but sociological work points at economic dependence as a factor of power balance between partners, so one can expect differences between individuals having an income of their own and those with no income.

Table 6: Ability to decide about one's own expenses (%)

	Feeling free			Always by household pooling regime		
	always	sometimes	never	Full pooling	Partial pooling	No pooling
AT	94,8	3,6	1,6	93,9	96,7	97,1
BE	84,3	11,4	4,4	81,4	89,1	94,6
BG	45,3	38,3	16,4	40,1	54,3	54,0
CY	75,1	19,0	6,0	68,5	80,7	87,1
CZ	70,1	25,0	4,8	68,1	74,5	77,9
DE	93,0	6,3	0,8	93,0	97,1	95,2
DK	80,0	12,5	7,5	79,5	84,0	91,0
EE	60,6	31,0	8,4	60,9	64,2	83,3
EL	54,6	30,5	14,9	45,8	65,8	71,8
ES	88,4	7,9	3,7	88,2	91,4	84,8
FI	91,5	7,3	1,2	89,9	94,2	96,4
FR	80,4	12,6	7,0	78,8	87,1	83,4
HU	79,5	13,1	7,4	78,4	84,1	87,6
IE	74,6	17,1	8,3	71,4	84,3	78,6
IT	55,5	25,0	19,5	54,4	64,6	66,5
LT	68,2	28,1	3,7	63,5	75,9	75,5
LU	91,5	4,0	4,4	91,3	87,5	94,2
LV	58,3	23,2	18,5	48,3	72,2	70,6
MT	93,0	5,4	1,6	92,8	90,8	97,0
NL	87,4	7,1	5,6	88,3	91,4	93,2
PL	66,0	24,6	9,4	64,7	67,9	73,3
PT	66,4	21,4	12,2	59,2	74,7	82,1
RO	33,5	46,4	20,1	32,3	43,2	42,9
SE	77,3	14,3	8,4	74,8	83,7	81,9
SI	87,8	6,8	5,5	86,2	88,7	92,3
SK	78,5	17,0	4,6	75,4	81,5	90,2
UK	79,0	14,7	6,3	75,9	85,2	91,0
mean	74,6	17,5	7,8	72,0	79,8	82,7

Source: EU-SILC, UDB 2010 release 2, Population: Target individuals.

Table 7: Economic characteristics and feeling “always” free to decide about one’s own expenses

	Having a personal income			Poverty status		
	yes	no	yes/no	not poor	poor	not poor/poor
AT	96,4	83,0	1,2	96,5	84,5	1,1
BE	85,2	70,9	1,2	85,4	68,7	1,2
BG	47,7	14,5	3,3	47,7	27,4	1,7
CY	76,8	58,7	1,3	75,7	68,1	1,1
CZ	71,3	24,9	2,9	71,4	43,1	1,7
DE	94,2	90,9	1,0	94,8	85,6	1,1
DK	81,3	75,9	1,1	81,6	76,3	1,1
EE	68,1	28,2	2,4	67,7	44,3	1,5
EL	52,8	29,1	1,8	53,1	34,8	1,5
ES	89,9	83,0	1,1	90,8	80,9	1,1
FI	92,1	80,0	1,2	92,6	82,9	1,1
FR	81,4	64,1	1,3	81,6	70,3	1,2
HU	80,5	55,3	1,5	81,1	66,4	1,2
IE	74,5	0,0		75,4	67,4	1,1
IT	62,3	33,0	1,9	60,6	34,0	1,8
LT	68,9	30,8	2,2	68,0	58,0	1,2
LU	91,6	86,2	1,1	91,8	84,9	1,1
LV	62,1	27,1	2,3	60,6	37,9	1,6
MT	92,6	93,3	1,0	92,9	91,5	1,0
NL	89,3	87,9	1,0	89,5	81,5	1,1
PL	67,8	46,8	1,5	67,9	55,2	1,2
PT	66,5	46,7	1,4	66,7	52,0	1,3
RO	37,7	1,1	35,0	36,2	20,9	1,7
SE	76,9	61,1	1,3	77,5	66,0	1,2
SI	88,7	62,2	1,4	89,0	75,7	1,2
SK	79,9	47,2	1,7	79,9	63,3	1,3
UK	80,1	60,8	1,3	81,1	69,4	1,2
mean	76,2	53,4	1,4	76,2	62,6	1,2

Note: “Having an income” is measured after the response to PA010.

Source: EU-SILC, UDB 2010 release 2, *Population*: Target individuals.

Results shown in Table 7 tend to be consistent with these expectations: the share feeling always free is higher among individuals living in non-poor households than among those in poor households, and respondents who report (in question PA010) having no personal income feel less often “always” free to decide. This also suggests that the households’ economic characteristics and regimes of pooling are not independent (infra).

This first approach at individual level shows important inequalities between individuals in general - suggesting interesting directions of analysis - but it does not inform about the existence or extent of intra-household inequality, which can be assessed only by combining the responses of the household’s members. In what follows, “intra-household inequality” is identified by the presence, within a same household, of individuals having different feelings about their ability to decide their own consumption⁽⁷⁾.

As mentioned above, one limitation is that “feeling free” can be understood as not having to ask for permission or consult other household’s members to make a decision (entitlement / autonomy) as well as

⁽⁷⁾ Having excluded dependent children from the population of target individuals allows avoiding the question of whether they should be entitled / feel free to decide of their own expenses without having to ask for permission.

having enough money (budget constraint), and it is of course not possible to be certain that all the members of a same household have understood the question in the same way. Another limitation, of a different sort, is that “intra-household statistics” require available responses from at least two household’s members (ideally, all the relevant individuals, i.e. target individuals). This automatically excludes “selected respondent” countries, but also all the households in which, for any reason, only one target individual was responding. This share of “incomplete” households is very different between countries (see Appendix 3), and may result in more or less reliable statistics depending on the country.

Within a majority of households, the respondents (target individuals responding to PA090) appear to share the same feeling about whether they are free or not to decide of their own expenses (Table 8 part A). The share of intra-household inequality is nevertheless significant, with a mean proportion of about 23%. This proportion of households in which not all members have the same feeling gives a measure of the potential for wrongly assuming intra-household equality.

Table 8: Intra-household (in)equality

	(a)		(b)			(c)			
	all have the same feeling	not all have the same feeling	by household pooling regime			all feel always free	by pooling regime		
			Full pooling	Partial pooling	No pooling		Full pooling	Partial pooling	No pooling
AT	92,4	7,6	8,8	7,2	5,2	91,0	89,3	92,0	93,7
BE	82,4	17,6	18,5	15,9	10,6	75,7	73,5	81,7	88,9
BG	59,7	40,3	36,9	49,8	50,8	30,9	28,8	37,0	34,2
CY	73,8	26,2	27,3	24,9	23,4	63,0	58,3	68,5	75,2
CZ	78,6	21,4	17,7	29,9	21,8	60,5	60,4	59,9	71,6
DE	93,2	6,8	7,4	4,6	7,3	90,4	89,0	94,7	92,1
EE	71,5	28,5	26,4	32,3	24,6	49,7	49,4	46,6	73,0
EL	66,1	33,9	33,8	36,3	23,9	41,2	37,5	56,2	68,6
ES	88,4	11,6	11,0	13,5	14,9	83,0	83,0	84,0	77,0
FR	75,3	24,7	26,6	18,2	22,6	67,7	64,2	79,1	72,3
HU	90,6	9,4	8,2	15,0	10,3	75,8	75,1	78,0	84,8
IE	77,8	22,2	22,0	20,0	23,4	64,8	61,9	74,2	68,0
IT	67,2	32,8	30,4	42,1	40,3	42,9	41,6	46,3	48,8
LT	71,7	28,3	28,2	29,1	26,2	54,8	50,9	66,0	70,0
LU	94,8	5,2	5,6	5,6	2,0	89,1	88,9	85,3	96,5
LV	64,6	35,4	36,3	34,0	33,0	44,5	37,0	58,8	59,3
MT	96,0	4,0	3,8	5,6	4,2	90,9	90,8	89,4	95,8
PL	68,8	31,2	27,7	40,8	31,7	52,1	53,3	48,5	55,8
PT	65,9	34,1	33,2	40,5	17,4	49,8	46,5	53,8	79,0
RO	56,9	43,1	40,3	64,0	53,4	19,3	18,8	22,7	24,8
SK	71,2	28,8	26,9	32,5	20,3	64,2	63,2	64,7	78,7
UK	79,8	20,2	21,7	19,3	11,9	69,1	64,9	74,0	84,8
mean	76,7	23,3	22,7	26,4	21,8	62,3	60,3	66,4	72,4

Source: EU-SILC, UDB 2010 release 2, *Population*: Target households counting at least 2 respondents to question PA090.

Differences between countries are noticeable: the share of households suspected of intra-inequality reaches 40% in Bulgaria (BG) and 43% in Romania (RO); at the other end, it appears rather low, under 10%, in Austria (AT), Germany (DE), Hungary (HU), Luxembourg (LU) and Malta (MT). There are also some differences by household pooling regime, but no clear pattern emerges from cross-country comparison (Table 8 part B).

A last question, once identified the households in which all respondents report the same feeling is the question of “what” feeling: is it “always”, “sometimes” or “never” free to decide? Actually, it is in majority a same feeling of being “always” free to decide (Table 8 part C). With the exception of Spain (ES), it is always higher in households who reported either partial pooling or no pooling.

3.4 To what extent are the standard assumptions wrong? A summary of tentative measures

Combining a potentially wrong assumption about income pooling and a potentially wrong assumption about intra-household equality could provide another estimate of the possible extent of error when using the standard implementation of equivalent incomes, i.e. income pooling and intra-household equality. To

compute this estimate and make it comparable to those presented in table 5, there is to avoid the bias resulting from the fact that intra-household inequality can be assessed only for target households counting at least 2 respondents, then “selected respondent” countries cannot be taken into account. For the other countries, we have imputed to households with missing values the same distribution between equal/unequal as that observed among the households counting at least 2 respondents. As for non-target households, they are considered (as was done in the computations for table 5) not to be subject to any potential error either about income pooling or about intra-household equality.

As shown in Table 9, the shares of households for whom the standard methodology could be inappropriate, that is households who either do not pool all their incomes or who are suspect of intra-household inequality or both, reach a mean of 30%. The corresponding shares of individuals, those living in these households, reach a mean of about 40%.

Going back to what is at stakes for statistics on poverty and inter-individual inequality, do these results help in any way?

A central question is that of the relevant indicator for assessing whether the standard assumptions are (are not) correct: on the one hand, in some empirical work (mostly quantitative sociology and economic psychology) income pooling is taken at face value as meaning that all the resources of all the household's members are pooled and equally accessed (by relevant individuals⁽⁸⁾) within the household. In full pooling households, every household member should then get his/her fair share (under a common budget constraint). Sorting out between pooling-sharing households and other households would then just require a direct question on the household's pooling regime. A side question is whether this direct question should be asked at household or at individual level – which, as we have seen, does not result in the same assessment. On the other hand, economists base their assessment of income pooling on the fact that the household consumption structure is indifferent to changes in the intra-household distribution of income. Checking for income pooling in this meaning would require additional information about the household's consumption, and being able to observe how it reacts to changes in the intra distribution of incomes - i.e. much more complicated than the direct question. However, Bonke and Browning conclude from an empirical comparison of these two approaches, that economists' and other social scientists' views of “income pooling” result actually in the same thing : “...income shares has a significant and positive impact in consumption shares within non-income pooling households but not within income pooling households...” (Bonke, Browning, 2009:10).

But if the direct question is a good tool to assess income pooling, the standard methodology goes one step farther since it assumes also that all the household's members are equal. Using the feeling of being able to freely make decisions about one's own consumption as a proxy, we find that substantial shares of households who are full pooling households are also suspect of intra-household inequality.

⁽⁸⁾ Empirical studies usually consider couples' partners. Here, by “relevant individuals” we mean essentially not dependent children – assuming that their parent(s) provide for their needs – i.e. the parents' choices take their child(dren) needs into account.

Table 9: Shares of households possibly wrongly assumed to be full pooling and “intra-equal” households (%)

	% Households									% Individuals	
	income pooling only		equal sharing only		Pooling / sharing			income pooling		income pooling	
	correct	wrong	correct	wrong	pooling not equal	equal not pooling	neither nor	and equal sharing correct	and equal sharing wrong	and equal sharing correct	and equal sharing wrong
AT	70,9	29,1	95,4	4,6	2,8	27,3	1,8	68,2	31,8	56,4	43,6
BE	88,0	12,0	89,6	10,4	8,7	10,3	1,7	79,3	20,7	72,3	27,7
BG	79,8	20,2	68,8	31,2	21,1	10,2	10,1	58,6	41,4	47,5	52,5
CY	65,8	34,2	80,2	19,8	11,3	25,7	8,5	60,5	39,5	44,7	55,3
CZ	77,4	22,6	84,6	15,4	8,7	16,0	6,6	68,2	31,8	60,8	39,2
DE	83,9	16,1	96,3	3,7	2,8	15,3	0,9	81,1	18,9	73,4	26,6
DK	52,2	47,8									
EE	73,7	26,3	83,0	17,0	8,8	18,0	8,2	64,9	35,1	53,0	47,0
EL	86,1	13,9	73,7	26,3	21,6	9,2	4,8	64,5	35,5	57,9	42,1
ES	82,4	17,6	90,9	9,1	6,7	15,2	2,4	75,7	24,3	71,0	29,0
FI	45,9	54,1									
FR	80,2	19,8	85,5	14,5	10,5	15,8	4,0	69,7	30,3	59,7	40,3
HU	86,2	13,8	93,3	6,7	4,7	11,9	2,0	81,4	18,6	76,6	23,4
IE	75,3	24,7	85,1	14,9	9,4	19,1	5,5	65,9	34,1	59,8	40,2
IT	86,0	14,0	78,8	21,2	15,4	8,2	5,8	70,6	29,4	61,0	39,0
LT	84,7	15,3	82,3	17,7	13,3	10,9	4,4	71,4	28,6	61,2	38,8
LU	80,3	19,7	96,5	3,5	2,7	18,8	0,8	77,7	22,3	72,0	28,0
LV	77,5	22,5	76,7	23,3	15,7	14,9	7,6	61,8	38,2	49,4	50,6
MT	89,3	10,7	96,9	3,1	2,5	10,1	0,6	86,8	13,2	84,9	15,1
NL	39,8	60,2									
PL	79,3	20,7	77,2	22,8	14,5	12,5	8,3	64,8	35,2	53,1	46,9
PT	78,6	21,4	73,7	26,3	18,5	13,6	7,8	60,1	39,9	52,5	47,5
RO	91,0	9,0	68,5	31,5	25,8	3,3	5,7	65,2	34,8	53,8	46,2
SE	52,7	47,3									
SI	31,3	68,7									
SK	70,8	29,2	78,9	21,1	11,8	20,0	9,3	59,0	41,0	47,2	52,8
UK	78,2	21,8	87,9	12,1	8,3	18,0	3,8	69,9	30,1	61,2	38,8
mean	73,6	26,4	83,8	16,2	11,2	14,7	5,0	69,3	30,7	60,4	39,6

Note: income pooling assessed on the basis of the household response.

Source: UDB2010 release 2, *Population*: All households and all individuals

4. A statistical analysis of income pooling by households' type and characteristics

This last section is aimed at analysing the relationship between households' characteristics and the regime of income pooling in order to find whether some common pattern emerges from cross-country comparisons. It focuses on couples because almost all the existing empirical literature actually does not treat of any type of household but of couples. Here, the module provides a unique data set: the main findings in the existing literature are based on different datasets, different populations and the results are obtained using different methodologies. EU-SILC provides a set of harmonized data allowing (even though with some limitations) to apply a same methodology on a large scale.

Compared to any type of household (i.e. a unit based on the dwelling) couples are specific in that they consist of individuals who have chosen to live together, who love and trust each other and expect continuity. This might not be the same in so-called "complex" households where people may live together out of need, but the actual composition of these households covers very different situations (some can be families, for example young adults staying with their parents because they experience employment or housing problems, or single parents living with other family members or conversely older parents living with their adult children for financial or care support, some can consist of unrelated household members). For various reasons, different types of households might opt for different types of arrangements. In general, full pooling is more prevalent among couples than among other households, among nuclear couples (i.e. the household includes only partners and their children) than among other types of couples (e.g. in three generations households), and also more frequent when the household includes children. Full pooling is also more prevalent in one breadwinner households (assessed either on incomes or earnings) and in the low quintiles of the income distribution, decreasing regularly at higher income levels; consistently, it is more frequent in poor than in non-poor households (the corresponding descriptive statistics are shown in Appendix 3).

Turning to couples, our target population is that of couples in "one couple" target households. This restriction is to avoid the impossibility of attributing the household response precisely to one or the other(s) couple(s) when there are several couples in the same households (in fact it could be spurious in the case of one couple within an extended family – e.g. 3 generations households). We also exclude same sex couples (not by principle but because there is not enough observations in national samples). An additional condition was to have information on the couple's duration (PA110) and couple's duration consistent with the partners' ages; this condition resulted in excluding higher shares of couples in Sweden, Slovenia and United-Kingdom (see Appendix 4). Under these criteria, target couples represent on average 80% of all the target households (less in United-Kingdom, then Slovenia and Sweden), and 90% of all couples (Appendix 5 gives the detail by country).

As for the methodology, the characteristics taken into account were selected according to the main findings in recent literature when the pertinent variables were available in EU-SILC (see Box 2). We mostly draw from Heimdal and Houseknecht (2003); Woolley (2003); Kenney (2006); Ludwig-Mayerhofer et al. (2006); Yodanis and Lauer (2007); Bonke and Uldall-Poulsen (2007); Laporte and Schellenberg (2011); Lyngstad et al. (2011) and also Treas (1993); Barlow (2008); Burgoyne and Morison (1997).

Box 2 - Main findings in the empirical literature		
Characteristic / variable :	Expected impact on full pooling	Is the information in EU-SILC or module ?
Marital status	+	PB190, PB200
Existence of public goods (including children), "common investments"	+	Yes
Division of labour (<i>pooling to share the gains of specialization</i>)	+	Partly (PL031)
Inequality of partners' incomes <i>(altruism should lead the main earner to share, cf. Bonke and Uldall-Poulsen)</i>	+	For individualized incomes (PY010, PY050, PY090, PY100, PY110, PY130, PY140)
Experience of past partnerships (cf. Burgoyne and Morison), financial ties with other households	-	Not directly Proxys: alimonies/inter-household transfers (HY), identify blended families (RB220 & RB230)
Union duration <i>(goes with specialization and accumulation of public goods – difficult to disentangle experience, couple's duration and age/generation effects)</i>	+	(PA110) but various inconsistencies and missing values
Education <i>(+education as income potential and marriage market)</i>	-	PE040
Upbringing, status		No
Wealth and its distribution between partners		No
Rationality: minimize transaction costs (Treas)		-
Total income level <i>conflicting arguments (cf. Treas, Pahl, Heimdahl and Houseknecht): high income, less need to monitor=>full pooling, but low income and need to collectivise, manage/monitor=>again full pooling</i>	-	HY020, HX090
Context, gender ideology, attitudes/beliefs (cf. Yodanis and Lauer)		No
Legal background: family law and property law (Barlow)		Yes (country)

4.1 Intra couple consistency?

Before checking whether EU-SILC couples behave as the literature predicts, it is interesting to go back to the combination of individual responses to the questions about the share of personal income pooled or kept (PA010) and about the perceived ability to decide about their own consumption (PA090). One could expect greater equality within couples than on average.

For the same reasons as exposed earlier (section 2.3.1), the analysis is limited to couples with 2 respondent partners, then “selected respondent” countries are not taken into account (and the same caution applies to countries with high shares of missing values). The results are reported in Table 10. Compared with the average obtained over all types of households, couples' partners appear more often consistent in their answers than the average members in any type of household: on average, the share of couples where the two partners consistently reported to pool all their income is about 59%, while it was only 46.5% over all the households (cf. table 4). As for the share of couples vs. all households reporting the same feeling of ability to decide about their own consumption, the difference is less pronounced: it was about 77% over all households' types (cf. table 8 part A), it is about 83% among couples – hence leaving 17% of them who do not report the same degree of freedom in their decisions about their own consumption. As for feeling “always” free to decide about their own spending, the mean proportion is lower than that observed over all the households (cf. table 8 part C), in general as well as in any pooling regime. This could mean that couples' partners consult each other more willingly than the average households' members do (caring more about their partner's opinion) – thus adding some difficulty in the interpretation of variable PA090.

Table 10: Intra-couple consistency

	Pooling regime defined by the partners' combined responses					Perceived ability to decide about own expenses				
	both pool all	both pool some	both keep all	different responses		both same perception	both always	by pooling regime		
							Full pooling	Partial pooling	No pooling	
AT	40,3	42,0	0,2	17,5	AT	93,1	91,5	89,6	93,0	94,9
BE	73,0	11,9	9,7	5,5	BE	83,9	76,3	74,3	83,8	90,3
BG	69,8	17,0	4,6	8,5	BG	75,5	34,8	33,3	42,3	38,4
CY	42,8	46,3	1,5	9,4	CY	81,2	64,9	61,4	69,8	74,7
CZ	67,3	20,9	3,7	8,1	CZ	85,5	63,0	62,7	63,3	76,1
DE	73,8	13,8	2,0	10,5	DE	93,2	90,2	89,1	94,3	90,1
EE	46,4	31,2	10,4	12,0	EE	76,8	51,9	52,1	48,1	79,1
EL	52,0	30,0	7,5	10,6	EL	76,2	42,3	39,7	58,7	51,6
ES	90,1	6,7	1,1	2,1	ES	93,3	87,0	86,9	88,9	79,7
FR					FR	75,3	66,8	64,2	77,5	69,5
HU	82,2	12,1	1,0	4,7	HU	96,5	77,7	77,6	78,8	77,8
IE	55,3	23,0	0,45	21,2	IE	82,4	66,1	63,6	76,7	71,0
IT	58,8	28,0	2,9	10,4	IT	76,6	45,7	44,4	50,0	55,2
LT	79,7	10,2	1,9	8,2	LT	78,2	57,5	54,4	70,2	81,4
LU	74,1	16,1	4,2	5,6	LU	96,7	90,6	90,7	86,2	97,6
LV	39,3	46,5	3,5	10,6	LV	74,2	47,8	41,2	66,5	67,8
MT	24,1	69,7	2,3	4,0	MT	98,6	91,0	91,0	89,9	92,9
PL	70,2	13,4	6,7	9,7	PL	77,9	55,9	56,9	50,8	60,6
PT	72,3	13,1	6,4	8,3	PT	73,1	50,2	48,6	56,0	61,2
RO	31,0	51,5	7,2	10,4	RO	70,0	21,8	21,7	23,0	18,0
SK	37,4	43,9	2,5	16,3	SK	79,4	68,6	66,9	71,6	81,7
UK	56,8	23,0	5,1	15,1	UK	80,7	68,0	65,0	74,4	78,4
mean	58,9	27,2	4,0	9,9	mean	82,6	64,1	62,5	68,8	72,2

Source: UDB2010 release 2, *Population*: Target couples, 2 partners respondent to PA010 / PA090

4.2 Couples' characteristics and income pooling: descriptive overview

In most of the dimensions examined, the associations between various characteristics and the pooling regime are as expected. The main results are briefly summarized below – but we do not comment the differences between countries even though some can be substantial (the corresponding tables, which indicate the ratio between the share of full pooling couples with a given characteristic and the average share of full pooling couples, are grouped at the end of the section).

Marital status, household type, children (Table 11)

As found in all empirical studies who take marital status into account, married couples appear with a higher propensity to full pooling than other couples (the sample sizes do not allow to distinguish between other types of partnerships by legal basis when they exist). The difference in full pooling associated to the marital status could not be examined for Cyprus (CY), Greece (EL), Lithuania (LT), Malta (MT) and Romania (RO) where the number of observations for not married couples was too small.

As for the family type, nuclear couples (i.e. households counting at most the two partners and their children) tend to “fullpool” more often than extended families. Excluding retired couples, nuclear couples with children tend also to fullpool more often than couples without children. The same is observed for extended families.

Financial ties with other households and past partnerships (Table 12)

Full pooling appears less frequent among couples financially tied to other households (the indicator used is the existence of inter-households transfers).

We have also tried to check whether past partnerships were associated with lower frequencies of full pooling. In the absence of direct information, the only indicator we could use is the existence of alimonies received or paid, but the small number of observations made it impossible for most countries. Over the remaining sub-sample, the results suggest a possible association between recomposed or blended families and a lower propensity to full pool.

Activity, earnings, woman's share of earnings (Table 13),

As was to be expected, the proportion of full pooling couples is lower when both partners are active or in dual earner couples. Full pooling is more frequent among retired couples, suggesting a generation effect but also perhaps signalling lower incomes (see below).

In dual earner couples; on average, the share of full pooling couples tends to be slightly lower when the woman's earnings represent more than 30% of the couple's earnings, which could suggest a link between “high” earnings women and more independent finances, but no clear pattern emerges.

Income, poverty status, wealth (Table 14)

As was observed over all the population of households, the share of full pooling couples tends to decrease with the income level, the differences between income quintiles being more or less pronounced depending on the country. The results are consistent when the frequency of full pooling is examined by poverty status.

To examine a possible link with wealth, we have used a dummy variable equal to 1 if the couple's income from capital and property is above the national mean, 0 otherwise; the share of full pooling couples is lower in the first case. Another tentative using home ownership was not conclusive – but it could result from the respective shares of owners/tenants (which are surprising in some countries), and from the fact that the variable in EU-SILC seems to group together owners and households using freely their dwelling.

Couple's duration and age (Table 15)

Duration and age are complicated issues: the association between duration and full pooling could include some generation effect, and it is also correlated with marital status income and wealth effects. In addition, couples with a long duration are necessarily more likely to be older than the average – while it is not impossible to find recent couples among older individuals. As for age, it includes possible effects of experience – older persons are more likely than younger to have experienced past partnerships. However, on average, one can expect to observe higher proportions of full poolers among couples who have a long duration and older partners.

For “age”, we have used a “couple’s age” defined as the mean age of partners and use a complementary indicator of age gap to distinguish couples in which the gap is greater than 5 years.

By duration, the proportion of full pooling couples goes up until to 20 years (25 in some countries) then down then up again from 35 years. As mentioned above, this could be linked with a life cycle effect (children and accumulation of wealth) and/or generation effects.

By age, the results are consistent with duration: the proportion of full pooling couples goes up then down then up. There could be an effect of experience (if past union dissolutions happen most often in the 45-60 age interval, where the share of full pooling decreases).

Education, citizenship (Table 16)

Given the strong social homogamy, most partners have close or equal levels of education; the education level is then defined for the couple, and we only distinguish whose partner (woman or man) has the highest level when education differs. The proportion of full pooling couples tends to be the lowest among the highest educated couples.

In couples with different education levels, the proportion of income pooling appears lower when it is the woman who has the highest level than when it is the man in most countries. This could be analysed as reflecting the link between education and earnings potential, but also as reflecting a link between education and gender ideology. Differences between countries are difficult to analyse (in addition, there are sensible differences in the overall education levels between countries)

As for citizenship, it could be used to assess whether different “cultures” are associated with different ways to organize the couple’s income. We have defined “non-national” citizenship as one of the partners not having the national citizenship. But this is only a weak proxy for culture, and in many countries, the share of non-national individuals is too low to be used (even inexistent). In the countries where the comparison could be done, the association with the proportion of full pooling shows no clear pattern.

Table 11: Full pooling by couple's demographic characteristics

	marital status		nuclear families			extended families		
	married	not married	all	no child	child(ren)	all	no child	child(ren)
AT	107	54	116	113	120	46	39	56
BE	107	72	104	103	107	80	82	79
BG	101	93	110	112	108	80	74	88
CY	100		118	125	112	58	43	77
CZ	103	75	111	111	110	62	55	73
DE	108	53	107	107	108	48	45	53
DK	109	60	100	98	105	94	100	92
EE	103	92	109	111	106	62	49	74
EL	100		107	106	108	84	80	93
ES	102	90	109	105	112	77	70	88
FI	117	54	101	100	103	74	66	82
FR	115	57	103	104	104	79	90	69
HU	102	90	107	106	107	81	76	85
IE	104	70	106	98	111	76	74	78
IT	101	81	108	107	108	78	72	90
LT	100		105	104	106	82	68	93
LU	108	58	103	102	104	83	73	97
LV	100	100	108	108	108	83	75	88
MT	100		103	101	105	94	93	96
NL	107	65	103	106	100	67	63	73
PL	101	91	115	115	115	71	67	75
PT	101	94	115	114	115	63	53	77
RO	100		104	105	104	89	87	91
SE	112	67	100	98	103	102	97	105
SI	101	95	114	116	113	57	49	67
SK	101	76	123	123	124	57	45	70
UK	104	82	106	102	111	73	62	84
mean	104	75	108	107	109	75	70	82

Source: UDB2010 release 2, *Population*: Target couples.

Table 12: Full pooling by couple's ties with other households

	all couples	couples with chid(ren)	
	Inter-household transfers	Inter-household transfers	Alimonies paid or received
AT	88	95	87
BE	88	88	85
BG	105	100	
CY	99	101	
CZ	93	93	86
DE	87	98	77
DK	83	88	
EE	74	67	78
EL	98	94	
ES	94	99	94
FI	98	94	78
FR	80	76	76
HU	101	101	93
IE	89	83	83
IT	91	97	
LT	95	87	
LU	94	99	86
LV	97	99	96
MT	99		
NL	95	93	89
PL	100	99	86
PT	102		
RO	95	95	
SE	94	93	93
SI	102	103	99
SK	89	91	87
UK	79	91	99
mean	93		

Source: UDB2010 release 2, *Population*: Target couples.

Table 13: Full pooling by activity status and earnings

	Couple's activity status				Partners' income		Woman share (*) in dual earner couples		
	2 active	act+inact	2 retired	other	1 income	2 incomes	<30	30<50	50+
AT	85	119	112	109	133	92	92	80	86
BE	92	107	112	107	110	97	100	93	85
BG	96	107	109	99	102	100	101	97	92
CY	97	93	115	108	95	101	93	96	106
CZ	93	108	111	100	111	98	97	93	86
DE	88	100	122	104	106	99	94	82	85
DK	96	95	114	102	91	100	94	100	94
EE	92	116	114	100	126	97	95	87	89
EL	98	108	103	96	103	98	99	100	94
ES	101	100	102	97	101	99	102	101	97
FI	89	105	125	103	134	99	100	88	90
FR	87	105	124	110	113	98	97	86	83
HU	97	102	106	98	104	99	101	96	97
IE	84	116	104	111	117	90	93	78	86
IT	98	103	103	97	103	99	99	98	95
LT	98	105	106	96	100	100	102	98	97
LU	90	108	112	110	113	96	100	91	76
LV	95	111	109	99	112	98	99	90	94
MT	98	102	98	101	101	98	102	99	96
NL	88	106	121	120	114	98	95	89	83
PL	101	98	106	94	102	100	102	100	98
PT	101	100	103	93	99	100	97	100	103
RO	99	102	100	99	101	99	100	101	96
SE	95	99	113	107	93	100	94	96	96
SI	100	106	103	90	107	99	104	100	97
SK	97	108	110	84	111	98	106	97	89
UK	90	114	116	107	117	96	91	87	87
mean	94	105	110	102	108	98	98	93	92

Source: UDB2010 release 2, *Population*: Target couples.

(*) share of the couple's total earnings

Table 14: Full pooling by income level, poverty status and wealth

	quintiles disposable income					poverty status		capital income	
	q1	q2	q3	q4	q5	n-poor	poor	no	yes
AT	145	132	120	96	70	96	143	102	85
BE	116	114	105	95	92	98	114	100	100
BG	115	114	107	100	83	98	112	100	97
CY	133	120	99	95	85	95	126	101	93
CZ	98	121	115	102	80	100	107	101	83
DE	115	116	112	102	82	99	115	101	97
DK	106	97	98	100	102	99	107	101	97
EE	134	128	112	96	76	97	128	101	80
EL	108	109	107	102	89	98	108	100	98
ES	110	112	104	96	89	98	110	101	94
FI	106	115	107	90	88	99	112	100	98
FR	107	110	101	95	97	99	110	98	106
HU	110	108	106	101	89	99	109	100	101
IE	120	118	110	99	86	97	119	101	88
IT	113	113	108	97	84	98	112	102	90
LT	115	100	108	97	93	99	104	100	91
LU	118	112	106	99	84	98	114	101	96
LV	127	119	117	98	82	96	123	101	68
MT	106	105	106	95	96	99	106	101	97
NL	117	118	103	94	83	100	105	100	102
PL	112	112	106	97	89	99	105	100	96
PT	114	112	109	92	89	98	109	101	96
RO	103	105	102	103	94	99	104	100	86
SE	99	106	98	99	99	100	104	101	94
SI	121	113	103	93	74	98	118	101	92
SK	123	126	109	94	67	98	121	102	88
UK	116	120	115	97	84	97	118	102	90
mean	115	114	107	97	86	98	113	101	93

Source: UDB2010 release 2, Population: Target couples.

Table 15: Full pooling by couple's duration, age and partners' age gap

	duration												age				age gap >5	
	5	10	15	20	25	30	35	40	>40	10à20	25+30	35+40	<30	30to45	45to60	60+	0	1
AT	76	105	99	108	87	77	83	108	129	104	82	94	101	103	83	118	100	99
BE	76	86	99	107	103	104	100	113	113	96	104	107	87	96	101	111	102	92
BG	97	103	110	107	93	84	91	99	109	107	89	94	106	102	91	105	100	99
CY	89	101	113	112	100	85	82	79	116	109	93	81	101	114	83	110	100	100
CZ	93	104	110	105	95	81	87	96	114	106	88	92	102	106	87	109	101	96
DE	55	84	102	109	97	84	96	106	125	98	91	101	77	102	90	119	101	97
DK	46	82	97	104	112	113	115	117	118	94	112	116	72	103	105	110	101	98
EE	89	97	102	113	97	92	96	100	110	103	95	97	101	100	96	105	102	95
EL	101	108	97	111	103	93	86	91	107	104	98	88	106	106	93	100	101	98
ES	89	99	111	112	109	91	88	90	103	107	100	89	98	108	96	98	100	98
FI	58	87	99	96	106	115	122	121	134	93	110	121	79	94	103	119	102	93
FR	54	75	100	108	100	106	108	124	129	92	103	116	75	96	101	121	102	93
HU	92	99	105	104	101	90	93	103	106	102	96	98	103	102	95	104	101	99
IE	69	84	103	121	104	96	103	107	112	99	100	105	88	105	99	108	100	100
IT	92	100	105	106	107	96	90	89	105	103	102	89	102	104	95	101	100	100
LT	93	108	104	98	101	93	96	100	107	103	98	97	101	102	96	103	99	103
LU	75	86	103	103	103	105	106	107	119	96	104	107	89	96	102	111	101	98
LV	102	105	95	107	102	86	95	101	108	102	95	98	103	103	92	106	99	104
MT	93	100	103	107	102	97	92	101	101	103	100	96	100	104	98	100	99	102
NL	65	85	96	105	97	95	100	118	124	94	96	109	82	94	96	119	101	95
PL	104	109	107	111	103	83	89	94	106	109	93	91	108	108	89	103	100	100
PT	94	109	109	116	100	87	81	92	103	111	93	86	106	111	87	102	100	100
RO	99	102	101	103	98	96	97	94	103	102	97	96	102	102	96	103	100	100
SE	60	90	105	107	109	103	110	110	118	100	107	110	79	102	101	110	101	97
SI	98	105	113	112	103	87	83	101	110	110	95	92	113	109	85	104	100	100
SK	91	121	124	121	99	77	76	83	112	122	88	79	118	113	83	105	99	104
UK	74	103	108	105	106	82	97	104	102	105	95	100	97	101	92	110	102	94
mean	82	98	104	108	101	93	95	102	113	103	97	98	96	103	94	107	100	98

(*) In absolute value. Source: UDB2010 release 2, Population: Target couples.

Table 16: Full pooling by education and citizenship

	Education		Citizenship									
	samedip=1	samedip=0	samedip=1			samedip=0			national	other	mixed	2other
			maxdip1	maxdip2	maxdip3	wom>	man>					
AT	98	102	114	94	98	100	102	AT	96	122	118	128
BE	100	100	110	105	92	96	104	BE	101	96	91	102
BG	101	97	107	100	98	93	103	BG				
CY	100	100	86	101	111	97	104	CY	100	102	98	107
CZ	100	100	111	100	93	97	102	CZ				
DE	99	101	114	101	94	94	104	DE	100	107		
DK	100	100	106	99	93	98	103	DK	100	99		
EE	97	103	120	103	85	104	101	EE	97	110	103	117
EL	101	99	100	102	98	100	99	EL	99	107	106	108
ES	99	101	99	105	97	102	100	ES	100	101	98	103
FI	98	102	123	94	89	101	103	FI	99	120		
FR	101	99	119	101	85	93	105	FR	99	106	104	109
HU	99	101	103	99	97	101	101	HU				
IE	99	101	117	109	82	98	104	IE	100	102	96	108
IT	100	100	102	101	87	100	100	IT	100	100	89	104
LT	99	101	106	98	98	100	102	LT				
LU	98	102	105	99	89	93	108	LU	102	98	92	100
LV	99	101	121	104	77	101	102	LV	99	103	103	104
MT	101	99	101	99	98	98	100	MT	100	107		
NL	97	103	115	99	84	96	107	NL	101	90	87	112
PL	101	98	100	100	107	98	98	PL	101	92		
PT	99	102	98	109	99	102	101	PT				
RO	100	100	99	100	99	102	100	RO				
SE	99	101	116	103	91	99	103	SE	100	96		
SI	101	98	105	103	96	98	99	SI				
SK	100	100	110	100	97	99	102	SK				
UK	101	99	118	101	91	96	104	UK	100	97	86	113
mean	99	100	108	101	93	98	102					

Note: Education levels (based on ISCED - PE040): 1=primary education, 2=less than tertiary education, 3=tertiary education; (--) nobs "other citizenship" too small. Source: UDB2010 release 2, Population: Target couples

4.3 Statistical analysis of the probability of full pooling in couples

Many of the characteristics used in the descriptions above are correlated: for example, married couples have more often children, older couples are more often married and have in general higher incomes than younger couples and so on. Logistic regressions will allow checking whether full pooling appears significantly associated with some characteristics when others are kept constant, and whether it is the same associations in different countries.

The analysis is done only for couples who are not retired and over a sub-sample of countries for which the sample size was sufficient in all the dimensions taken into account in the specification (with a low limit of at least 100 observations by cell). This left 15 countries.

The specification is very simple, introducing only dummy variables: marriage, presence of dependent children, type of couple (nuclear vs. extended family), existence of inter-household transfers, couple's duration (five dummies), partners' "age gap" as defined above, couple's education level (three levels), whether it is the same for both partners, whether the woman has a highest level, couple's activity status (2 partners active vs. other combinations), income quintiles, capital and property income (as a proxy for wealth) and a control for citizenship. Table 17 shows the results of the estimations, summarized by the odds ratios (detailed results are in Appendix 6).

Almost all the main effects appear with the expected sign. Other things equal, marriage is the characteristic which has the strongest (positive) influence on the probability of full pooling, then low income level, then having dependent children. Extended families have the expected negative effect, significant in all countries except Sweden (SE). Financial ties with other households have also the expected sign where their effect is significant

A short duration of common life (up to 5 years) has a general negative and significant effect and, regardless of significance, the effect of duration tends to increase the probability of full pooling - but there are important differences depending on the country. The age gap between partners has most often the expected effect but is significant only in Belgium (BE) and France (FR). The activity status and income level appear generally to play as expected and each are significant in most countries.

The impact of education, wealth and citizenship are more disparate and disparities are difficult to comment at this stage of the analysis.

All in all, these results suggest that some of the characteristics that might contribute to the probability to observe full pooling could be missing for some countries. A synthetic assessment of the model fit (pseudo R2) shows some variation between countries (the fit is lower in The United-Kingdom (UK), Ireland (IE), Estonia (EE) and Finland (FI) than in the other countries. This also needs further investigations.

Table 17: Odds ratios (*) from logistic regressions, dependent variable= full pooling

Parameter	AT	BE	DE	DK	EE	ES	FI	FR	IE	IT	LU	NL	PL	SE	UK
married	3,2	2,9	4,9	2,9	1,5	2,1	2,8	3,8	1,4	2,7	4,4	2,8	2,1	2,9	1,9
depend. children	1,7	2,9	1,5	1,8	1,5	2,1	1,6	1,6	2,4	1,8	2,4	1,4	1,3	2,1	1,8
extended family	0,2	0,2	0,1	0,7	0,3	0,1	0,5	0,3	0,3	0,3	0,3	0,2	0,1	0,8	0,4
Inter-h transfers	1,1	0,8	0,9	1,1	0,6	0,9	1,0	0,8	0,7	0,7	0,8	0,9	1,1	1,4	0,7
couple duration															
<5 years	0,3	0,3	0,2	0,2	1,1	0,4	0,3	0,2	0,5	0,3	0,2	0,2	0,7	0,2	0,5
10-<25	0,5	0,4	0,4	0,4	1,3	0,7	0,5	0,4	0,8	0,4	0,3	0,4	0,8	0,4	0,9
25-<35	0,5	0,7	0,5	1,0	1,2	1,0	0,7	0,4	1,2	0,7	0,4	0,4	0,9	0,6	1,0
35-<45	0,6	1,1	0,9	1,4	1,1	1,1	1,0	0,8	1,2	0,8	0,7	0,8	0,9	0,9	1,2
40+ (ref)															
age gap>5 years	0,9	0,6	0,9	0,9	0,8	0,9	1,0	0,7	1,0	1,0	1,0	0,8	0,9	1,0	0,8
education															
couple level1	1,3	1,1	1,5	1,1	1,4	0,7	1,3	0,9	1,1	0,8	1,1	1,3	0,8	1,4	1,1
couple level2 (ref)															
couple level3	1,0	0,7	0,9	0,9	0,7	0,9	0,8	0,7	0,8	0,7	0,8	0,7	1,0	0,8	0,7
same level	0,9	0,8	0,9	0,9	0,9	0,9	0,9	1,0	0,9	1,0	0,7	0,7	1,2	1,0	0,9
wom higher level	1,1	0,8	0,9	0,9	1,1	0,9	1,1	1,0	0,9	0,9	0,8	0,8	1,1	1,0	0,8
both active	0,8	0,7	0,9	0,8	0,8	0,9	0,8	0,8	0,4	1,1	0,9	0,7	1,1	0,8	0,6
income quintile															
1	1,8	2,0	1,6	0,9	2,3	1,6	1,5	1,4	1,0	1,5	2,1	1,2	1,4	2,3	0,9
2	1,3	1,5	1,0	0,7	1,6	1,7	1,1	1,2	1,2	1,4	1,1	1,5	1,2	1,6	1,0
3 (ref)															
4	0,6	0,7	0,7	0,9	0,8	0,7	0,8	0,9	0,8	0,6	0,7	0,9	0,8	1,0	0,7
5	0,5	0,5	0,4	1,1	0,5	0,5	0,7	0,7	0,6	0,4	0,5	0,6	0,7	1,0	0,5
property & capital income	0,7	1,0	0,7	0,7	0,7	0,8	0,9	1,0	0,8	0,8	0,7	1,0	0,7	0,6	0,7
non-national citiz.	0,7	1,2	0,9	0,7	0,8	0,7	0,6	1,0	0,8	1,1	0,8	1,2	0,5	1,0	1,0
% Concordant	76,7	79,9	79,2	71,5	71,3	79,2	69,1	76,1	72,7	75,7	77,0	75,6	76,2	72,4	70,4
Pseudo R2	0,21	0,16	0,22	0,14	0,13	0,16	0,12	0,19	0,13	0,13	0,16	0,15	0,15	0,14	0,12
rescaled	0,28	0,27	0,31	0,20	0,18	0,26	0,16	0,26	0,18	0,20	0,25	0,23	0,23	0,20	0,16
nobs	2733	2931	5606	3040	2439	7814	5606	5255	2291	9383	3010	5629	6618	2732	2821

(*) bold: significant at <.05 level; >0: positive effect; <0: negative effect

5. The lid is open, now what?

As indicated in the introduction, this paper is as much about limitations as it is about results. Intra-household is a complicated level of analysis, and pooling and sharing are complex issues. In addition, different modes of data collection, varying response rates and some doubts about the correct understanding of the questions by the respondents make the analysis even more challenging.

It is also worth highlighting the problem of questions asked at individual level, which are obviously of limited interest if there is only one respondent at individual level in the household; this is the case of all countries using a “selected respondent” method of collection, but also that of other countries where values are missing for substantial shares of observations.

For all these reasons, it is sometimes difficult to make use of cross country differences as these might in fact reflect differences in structures and “cultures” but also possible – and sometimes confirmed – deficiencies in the data quality (meaning and understanding of questions, mode of data collection).

As for the results presented here, which are preliminary, we will retain at this stage the following provisional conclusions:

- the tentative measures of correct/wrong assumptions (with caution about their robustness given the uncertain quality and comparability of data) tend to reinforce the suspicion that assuming income pooling is a very strong assumption, that it is very likely that the household members are not necessarily equal (at least in terms of their ability to make decisions about their own consumption) and that intra-household equality does not necessarily follow full income pooling. These are serious incentives to investigate ways of computing alternative / complementary indicators, if not to correct the standard methodology. “How to do this” remains an entire question.
- as for couples pooling behaviour: the results from logistic regressions tend to confirm the main findings in empirical literature, but more information would be welcome (e.g. better information on family ties, including on children not living in the household; information on partners’ former couple’s experiences; information on partners’ parents characteristics; ownership of property and capital, ...). These results also suggest that more dual earners couples, more family disruptions and re-compositions could lead to lower shares of full pooling households. This is a further incentive to investigate potential corrections in the standard measures of living standards and inter-individuals inequality or the development of alternative indicators.

6. References

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7. Appendices

Appendix 1: From the module's population targets to the paper's targets

Households

	all	target module	target module	target households re-set		
		ha010_f>-4	& nadult>1	nobs	% of all	% of module
AT	6188	3930	3808	3799	61,4	96,7
BE	6132	4221	3991	3950	64,4	93,6
BG	6162	4615	4533	4526	73,5	98,1
CY	3780	3073	3014	3012	79,7	98,0
CZ	9098	6449	6112	6110	67,2	94,7
DE	13079	8545	8207	8196	62,7	95,9
DK	5867	4718	4369	4333	73,9	91,8
EE	4972	3812	3617	3615	72,7	94,8
EL	7005	5172	5076	5075	72,4	98,1
ES	13597	10800	10581	10559	77,7	97,8
FI	10989	8162	7949	7598	69,1	93,1
FR	11043	7663	7242	7205	65,2	94,0
HU	9813	6863	6562	6559	66,8	95,6
IE	4627	3007	2860	2825	61,1	93,9
IT	19147	13604	13319	13178	68,8	96,9
LT	5314	3985	3827	3824	72,0	96,0
LU	4876	3688	3580	3564	73,1	96,6
LV	6255	4195	3974	3961	63,3	94,4
MT	3781	3005	2951	2847	75,3	94,7
NL	10134	7109	6948	6932	68,4	97,5
PL	12930	10290	10058	10054	77,8	97,7
PT	5182	4026	3916	3848	74,3	95,6
RO	7688	5092	4947	4943	64,3	97,1
SE	7173	5428	5233	4383	61,1	80,7
SI	9364	8201	8021	8021	85,7	97,8
SK	5376	4265	4113	4097	76,2	96,1
UK	8109	5386	5225	5115	63,1	95,0
	217681	159304	154033	152129		

EU-SILC 2010, UDB release 2

Individuals

	all in register	all in P file	all in target module	module & "adult"	target individuals re-set		
					nobs	% of P file	% of module
AT	14085	11493	9235	8514	8370	72,8	90,6
BE	14754	11816	9903	8890	8573	72,6	86,6
BG	16317	14441	12894	11770	11671	80,8	90,5
CY	11088	9106	8399	7161	7098	77,9	84,5
CZ	21379	18209	15560	13982	13641	74,9	87,7
DE	27978	23531	18997	17650	17292	73,5	91,0
DK	14757	11744	10593	9478	9054	77,1	85,5
EE	13474	11219	10059	8501	8302	74,0	82,5
EL	17611	14788	12948	11921	11823	79,9	91,3
ES	37026	30953	28156	25484	25214	81,5	89,6
FI	27009	21696	18869	16795	15816	72,9	83,8
FR	26522	21057	17677	15799	15293	72,6	86,5
HU	24751	20653	17703	15477	15170	73,5	85,7
IE	11572	8782	7162	6426	6199	70,6	86,6
IT	47551	40362	34819	31579	30982	76,8	89,0
LT	13235	11606	10277	8994	8830	76,1	85,9
LU	13423	10238	9050	8024	7881	77,0	87,1
LV	15313	12999	10939	9726	9477	72,9	86,6
MT	10384	8717	7941	7179	6901	79,2	86,9
NL	24639	19134	16109	14669	14474	75,6	89,9
PL	37379	30805	28165	25258	25018	81,2	88,8
PT	13368	11380	10224	9376	9103	80,0	89,0
RO	18296	16116	13133	11966	11813	73,3	89,9
SE	17881	14321	12576	11214	9058	63,2	72,0
SI	29520	25239	24066	20662	20482	81,2	85,1
SK	16304	14106	12995	10850	10660	75,6	82,0
UK	18713	15120	12397	11538	11131	73,6	89,8
all indiv	554329						
all p_file=1		459631	400846	358883	349326		

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Appendix 2: Question PA090, % incomplete households

(population: target households, target individuals)

	Incomplete households	Non Missing values in PA010 and PA040				
	n respondent < n target_i	flag=1 PA010	% in target_i	flag=1 PA090	% in target_i	
AT	32,4	6694	80,0	7017	83,8	missing>10%
BE	4,1	8376	97,7	8388	97,8	
BG	0,5	11645	99,8	11646	99,8	
CY	0,0	7098	100,0	7098	100,0	
CZ	1,6	13529	99,2	13524	99,1	
DE	4,7	16998	98,3	16830	97,3	
DK	100,0	4038	44,6	4040	44,6	Selected respondent
EE	2,3	7158	86,2	8200	98,8	
EL	0,0	11823	100,0	11823	100,0	
ES	3,7	24735	98,1	24740	98,1	
FI	100,0	7041	44,5	7250	45,8	Selected respondent
FR	55,4	10664	69,7	10826	70,8	missing>10%
HU	0,2	15153	99,9	15154	99,9	
IE	0,3	6165	99,5	6177	99,6	
IT	0,0	30982	100,0	30982	100,0	
LT	5,9	8529	96,6	8544	96,8	
LU	1,4	7852	99,6	7833	99,4	
LV	2,2	9365	98,8	9365	98,8	
MT	0,7	6854	99,3	6855	99,3	
NL	100,0	6605	45,6	6603	45,6	Selected respondent
PL	48,5	18558	74,2	18558	74,2	missing>10%
PT	0,5	9036	99,3	9076	99,7	
RO	2,7	11599	98,2	11599	98,2	
SE	100,0	3850	42,5	4275	47,2	Selected respondent
SI	100,0	7223	35,3	7223	35,3	Selected respondent
SK	1,0	10598	99,4	10616	99,6	
UK	23,0	9760	87,7	9777	87,8	missing>10%

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Appendix 3: Households characteristics and pooling regime

% Full pooling by household type / average %

	All couples	All nuclear	Dependent children		Extended all	Dependent children		No family (*) in the household
			no	yes		no	yes	
AT	106	127	123	131	42	49	59	34
BE	103	108	107	110	76	83	82	55
BG	104	123	125	120	81	84	88	77
CY	105	126	134	120	59	61	82	55
CZ	107	121	121	120	55	65	77	39
DE	104	111	111	113	45	50	55	36
DK	102	103	100	107	76	94	93	29
EE	105	117	119	114	66	67	78	73
EL	103	112	111	112	83	85	93	74
ES	105	116	113	120	75	81	91	64
FI	103	105	104	106	54	69	76	26
FR	104	108	108	107	66	81	73	39
HU	106	115	114	116	76	85	90	63
IE	111	118	110	125	61	83	84	27
IT	105	114	113	114	76	81	93	64
LT	104	114	113	115	77	82	94	73
LU	104	109	107	110	74	83	103	42
LV	106	122	121	122	79	88	94	69
MT	104	108	106	110	90	98	99	66
NL	104	108	111	104	53	69	78	20
PL	105	127	126	128	69	76	81	58
PT	107	126	125	126	61	68	80	55
RO	102	110	111	110	88	92	93	88
SE	102	102	100	106	78	102	104	46
SI	107	127	130	124	54	59	69	47
SK	107	139	138	139	56	62	76	55
UK	107	114	110	120	60	77	90	30
mean	105	115	115	116	69	78	85	53

Source EU-SILC 2010, UDB release 2, *Population* : Target households

(*) as far as the data allow to check for family ties - i.e only spouses/partners and parents.

% Full pooling by number of individual incomes and number of earners in the HH / average %

	number of incomes (*)		number of earners (*)	
	1 income	2+ incomes	1 earner	2+ earners
AT	158	88	119	81
BE	116	95	104	92
BG	116	98	106	92
CY	126	94	107	90
CZ	121	95	103	89
DE	116	97	107	85
DK	100	100	105	97
EE	133	94	113	88
EL	115	94	102	93
ES	116	93	101	94
FI	123	97	114	92
FR	116	98	109	88
HU	111	98	99	95
IE	124	85	116	83
IT	115	95	101	92
LT	109	97	104	95
LU	122	94	106	90
LV	123	96	110	91
MT	110	95	101	97
NL	112	98	109	90
PL	118	96	104	93
PT	121	95	99	93
RO	106	98	102	96
SE	103	100	107	95
SI	124	96	91	96
SK	131	95	101	89
UK	122	95	109	87
mean	119	95	105	91

(*)based on incomes received in the reference period. Number of incomes=HH members with earnings or pensions. Number of earners=HH members with an earned income (wages, unemployment benefits, self-employed incomes).

Source EU-SILC 2010, UDB release 2, Population : Target households

% Full pooling by household income level (equiv disp income) and poverty status / average %

	Income quintile					Poverty status	
	1	2	3	4	5	not poor	poor
AT	145	130	121	97	68	96	139
BE	119	115	102	95	93	98	115
BG	120	121	109	98	80	97	115
CY	119	116	98	99	86	96	119
CZ	99	122	113	102	80	99	110
DE	112	112	111	102	84	99	112
DK	102	97	98	101	104	100	104
EE	131	127	112	93	75	97	127
EL	108	112	107	99	89	98	110
ES	113	113	102	96	88	97	113
FI	103	113	106	91	89	99	111
FR	100	108	100	96	99	99	106
HU	104	108	106	102	88	99	108
IE	114	107	110	100	88	98	114
IT	113	115	108	95	83	98	114
LT	113	102	112	95	91	99	106
LU	116	114	103	101	84	98	115
LV	128	120	119	98	78	95	124
MT	108	106	104	95	97	99	109
NL	107	119	102	95	85	100	99
PL	111	113	109	97	87	99	106
PT	120	115	108	91	87	97	115
RO	105	108	103	103	92	99	103
SE	100	106	97	99	100	100	105
SI	120	112	105	93	74	98	120
SK	124	131	108	93	65	97	127
UK	120	117	111	96	86	97	119
mean	114	114	107	97	86	98	113

Source EU-SILC 2010, UDB release 2, *Population* : Target households

Appendix 4: Couples duration missing and/or inconsistent with the partners' age

	all target households	only 1 couple and the household respondent is one of the partners no same-sex		consistent duration		duration missing both partners
				all	not missing Target couples	
AT	3799	3426	3410	3393	3387	6
BE	3950	3630	3582	3573	3477	96
BG	4526	3230	3230	3214	3214	0
CY	3012	2661	2661	2649	2649	0
CZ	6110	5403	5400	5396	5371	25
DE	8196	7833	7783	7775	7547	228
DK	4333	4195	4185	4162	3762	400
EE	3615	2984	2984	2984	2963	21
EL	5075	4428	4428	4421	4420	1
ES	10559	8707	8691	8664	8617	47
FI	7598	7234	7214	7198	6824	374
FR	7205	6756	6711	6685	6666	19
HU	6559	5392	5391	5387	5368	19
IE	2825	2443	2432	2430	2415	15
IT	13178	11266	11266	11244	11244	0
LT	3824	3162	3162	3149	3072	77
LU	3564	3292	3283	3276	3271	5
LV	3961	2877	2877	2876	2858	18
MT	2847	2456	2453	2446	2411	35
NL	6932	6612	6547	6530	6140	390
PL	10054	8133	8132	8125	8096	29
PT	3848	3278	3278	3262	3262	0
RO	4943	3957	3957	3937	3857	80
SE	4383	4229	4216	4203	3213	990
SI	8021	6308	6308	6291	5268	1023
SK	4097	3309	3309	3302	3272	30
UK	5115	4680	4666	4663	2889	1774
total	152129	131881	131556	131235	125533	5702

Source EU-SILC 2010, UDB release 2, Population : Couples

Appendix 5: Target couples

	Target couples in % of target households	Target couples in % of all couples
AT	89,2	96,0
BE	88,0	94,3
BG	71,0	82,9
CY	87,9	96,5
CZ	87,9	97,3
DE	92,1	95,7
DK	86,8	89,2
EE	82,0	93,2
EL	87,1	96,1
ES	81,6	92,7
FI	89,8	92,6
FR	92,5	97,8
HU	81,8	94,6
IE	85,5	97,5
IT	85,3	96,0
LT	80,3	91,2
LU	91,8	96,3
LV	72,2	89,8
MT	84,7	96,2
NL	88,6	92,1
PL	80,5	90,5
PT	84,8	94,5
RO	78,0	88,1
SE	73,3	76,0
SI	65,7	72,2
SK	79,9	90,2
UK	56,5	61,1
mean	82,4	90,8

Source EU-SILC 2010, UDB release 2

Appendix 6: Logistic regressions, detailed results

Parameter	AT Est. Chi-2	BE	DE	DK	EE	ES	FI	FR	IE	IT	LU	NL	PL	SE	UK	
Intercept	1,0 12,0	2,2 35,8	1,4 25,8	1,2 14,3	0,9 9,5	2,4 123,1	0,7 9,0	1,1 19,1	1,6 25,4	1,9 90,3	1,7 31,5	1,7 40,0	2,3 114,5	0,8 7,6	1,5 10,2	
married	1,2 76,5	1,1 63,6	1,6 235,5	1,1 80,1	0,4 13,3	0,8 48,7	1,0 164,0	1,3 266,7	0,4 3,9	1,0 104,4	1,5 119,3	1,0 131,2	0,7 16,4	1,1 96,5	0,6 24,4	
dep_children	0,5 25,1	1,1 73,4	0,4 24,5	0,6 26,3	0,4 14,3	0,8 81,6	0,5 49,3	0,5 36,9	0,9 41,7	0,6 67,4	0,9 56,2	0,4 18,1	0,3 10,2	0,7 40,7	0,6 34,7	
extended family	-1,7 175,0	-1,5 123,1	-2,3 508,6	-0,4 4,8	-1,2 114,6	-1,9 542,6	-0,8 40,0	-1,1 129,4	-1,2 73,8	-1,4 336,3	-1,3 77,0	-1,6 138,3	-2,0 625,1	-0,2 1,7	-1,0 70,7	
inter-hh transfers	0,1 1,1	-0,3 3,6	-0,1 0,7	0,1 0,1	-0,6 12,6	-0,1 0,4	0,0 0,0	-0,2 2,5	-0,4 4,4	-0,3 8,0	-0,3 4,1	-0,1 1,5	0,1 0,4	0,4 2,4	-0,4 7,0	
couple's duration (ref: >40)																
<5	-1,4 28,3	-1,1 12,2	-1,7 63,4	-1,6 46,1	0,1 0,1	-0,8 23,5	-1,2 52,8	-1,7 57,0	-0,7 6,0	-1,2 67,0	-1,8 41,5	-1,6 58,1	-0,4 3,1	-1,6 52,5	-0,7 2,4	
5 - <20	-0,8 11,4	-1,0 11,2	-0,9 23,1	-0,8 17,0	0,3 1,2	-0,3 4,9	-0,7 22,6	-0,9 20,0	-0,2 1,3	-0,9 52,2	-1,3 25,6	-1,0 31,4	-0,2 1,0	-0,8 15,9	-0,2 0,2	
20 - <30	-0,8 11,4	-0,3 1,1	-0,6 10,9	0,0 0,0	0,2 0,5	0,0 0,1	-0,3 5,7	-0,8 15,6	0,2 0,9	-0,3 8,6	-0,9 12,0	-0,8 20,0	-0,1 0,1	-0,5 4,1	0,0 0,0	
30 - <40	-0,4 4,1	0,1 0,2	-0,1 0,4	0,3 2,9	0,1 0,3	0,1 0,3	0,0 0,0	-0,2 1,5	0,2 0,8	-0,2 5,7	-0,3 1,7	-0,2 1,6	-0,1 0,2	-0,1 0,1	0,2 0,3	
age gap >5	-0,1 0,4	-0,5 13,9	-0,1 2,0	-0,1 0,8	-0,2 3,1	-0,1 1,8	0,0 0,0	-0,3 16,8	0,0 0,0	0,0 0,1	0,0 0,0	-0,2 3,8	-0,1 1,6	0,0 0,0	-0,2 3,7	
education level (ref: secondary)																
primary	0,3 1,6	0,1 0,4	0,4 2,7	0,1 0,1	0,3 1,6	-0,3 9,2	0,3 3,1	-0,2 1,5	0,1 0,1	-0,2 10,5	0,1 0,2	0,3 3,3	-0,3 3,6	0,3 1,1	0,1 0,1	
tertiary	0,0 0,0	-0,3 6,6	-0,1 2,6	-0,1 0,9	-0,3 10,7	-0,1 1,0	-0,3 16,6	-0,4 28,0	-0,3 3,8	-0,3 18,6	-0,2 3,4	-0,4 21,2	-0,1 0,3	-0,3 6,3	-0,3 9,3	
same educ. Level	-0,1 1,0	-0,2 1,3	-0,1 1,3	-0,1 0,3	-0,1 0,9	-0,1 1,3	-0,1 0,4	0,0 0,0	-0,1 0,3	0,0 0,3	0,0 0,3	-0,3 6,0	-0,3 13,7	0,2 3,4	0,0 0,0	-0,1 1,1
wom higher educ.	0,1 0,3	-0,2 2,1	-0,1 0,8	-0,1 1,0	0,1 0,3	-0,1 2,0	0,1 1,1	0,0 0,0	-0,1 0,4	-0,1 0,6	-0,3 3,3	-0,2 4,1	0,1 0,8	0,0 0,1	-0,2 3,6	
2 partners active	-0,2 4,7	-0,4 6,4	-0,1 1,5	-0,2 4,2	-0,2 5,4	-0,1 0,9	-0,2 9,0	-0,2 8,2	-0,8 41,9	0,1 1,7	-0,1 0,5	-0,4 16,7	0,1 2,2	-0,2 2,4	-0,5 21,4	
quintile disposable income (ref: 3rd quintile)																
1st quintile	0,6 4,9	0,7 3,3	0,5 4,5	-0,1 0,1	0,8 9,3	0,5 9,7	0,4 6,3	0,4 3,9	0,0 0,0	0,4 7,1	0,7 8,7	0,2 0,5	0,3 3,4	0,8 10,4	-0,2 0,4	
2nd quintile	0,2 1,7	0,4 2,5	0,0 0,0	-0,3 2,9	0,5 7,4	0,5 14,4	0,1 1,5	0,2 1,6	0,2 1,0	0,4 8,9	0,1 0,3	0,4 8,9	0,2 2,6	0,4 6,4	0,0 0,0	
4th quintile	-0,5 13,8	-0,3 3,2	-0,3 6,5	-0,1 0,3	-0,2 3,3	-0,3 10,3	-0,3 11,9	-0,1 0,6	-0,2 1,4	-0,6 43,2	-0,4 5,5	-0,2 2,6	-0,2 4,6	0,0 0,1	-0,4 8,5	
5th quintile	-0,8 32,5	-0,7 15,7	-0,8 50,5	0,1 0,5	-0,7 28,5	-0,8 52,0	-0,4 16,7	-0,3 7,8	-0,5 9,9	-1,0 120,4	-0,7 17,3	-0,5 25,4	-0,4 17,6	0,0 0,0	-0,7 24,5	
capital income	-0,3 5,0	0,0 0,0	-0,3 9,9	-0,4 12,1	-0,3 3,0	-0,2 2,7	-0,1 0,9	0,0 0,2	-0,3 2,8	-0,3 15,1	-0,3 4,2	0,0 0,1	-0,4 6,5	-0,5 13,8	-0,4 7,0	
national citizenship	-0,4 9,4	0,1 1,0	-0,2 0,9	-0,4 3,7	-0,3 4,0	-0,3 4,7	-0,6 11,0	0,0 0,1	-0,3 2,4	0,1 0,2	-0,2 4,2	0,2 0,8	-0,7 11,3	0,0 0,0	0,0 0,0	
Pseudo R2	0,21	0,16	0,22	0,14	0,13	0,16	0,12	0,19	0,13	0,13	0,16	0,15	0,15	0,14	0,12	
rescaled	0,28	0,27	0,31	0,20	0,18	0,26	0,16	0,26	0,18	0,20	0,25	0,23	0,23	0,20	0,16	
nobs	2733	2931	5606	3040	2439	7814	5606	5255	2291	9383	3010	5629	6618	2732	2821	
% Concordant	76,7	79,9	79,2	71,5	71,3	79,2	69,1	76,1	72,7	75,7	77,0	75,6	76,2	72,4	70,4	

Source EU-SILC 2010, UDB release 2

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