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# Comparing past annual income from questionnaire, income from register and the current household income: inconsistencies and effects on low income rates

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### **Abstract**

The European Community Statistics on Income and Living Conditions (EU-SILC) aim to measure poverty and household incomes in Europe in accord with international standards which are enforced by several EU legal documents and technical specifications. The incomes of all household members are aggregated to obtain the household income, which is then equivalised by the household size to calculate the at-risk-of-poverty threshold and rate. Aggregated income components can be derived either from respondents via questionnaire or can be extracted from suitable registers. It is noteworthy that information on household income is combined with information on household composition from a different reference period. In EU-SILC the income reference period is one year, usually the previous calendar year. It is related to the household composition at the time of the interview. For households which have been newly formed or have changed their composition inconsistencies have to be expected. This raises the question whether estimates based on the previous annual income are (systematically) biased.

In general, the annual income of the last year is taken as a proxy for the living standard of the household that is surveyed at the time of the interview. This assumption is in some cases problematic. For example if a single earner couple splits up into two separate households, the partner who did not earn any income in the previous year, would be correctly recorded as a household with zero income in the subsequent survey wave. Further, the relationships between income variables and other household characteristics may be difficult to ascertain. The first part of this contribution presents empirical evidence on the extent of the mismatch for EU-SILC in Austria.

The second part discusses whether the current monthly household income can be a possible alternative. This variable has been proposed as a social core variable and is already collected in EU-SILC by some countries. Current monthly income consistently relates to the

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income and household situation at the time of the interview. It is easy to survey and requires little editing effort and can be made available more timely than the annual income. Although not stricktly compatible with current international standards, which recommend a comprehensive definition of income sources, current monthly income may provide a source for flash estimates. The paper will compare the results for at-risk-of poverty rates and measures of income inequality for these two income concepts and aims to offer conclusions beyond the Austrian situation.

#### Introduction

EU-SILC is one of the main pillars of the European Social Statistics. Its main aim is social reporting on Income and Living Conditions and thus the reporting on poverty. The at-risk-of-poverty rate (AROP) is defined as share of persons with an equivalised income below the poverty line. This poverty line is defined as 60% of the median of the distribution of the equivalised net household income.

The calculation of this equivalised net household income sums up all available income components received by the members of the household during the last calendar year<sup>1</sup>. This approach causes problems, stemming from inconsistencies between the reference periods of the two constituting elements: the annual income on the one hand and the household (composition on the other hand).

A similar approach was also used for the predecessor project of EU-SILC, the European Community Household Panel (ECHP)<sup>2</sup>. Since then, several approaches have been discussed to overcome these inconsistencies. However, every attempt for the measurement of the household income seems to be affected from this consistency – therefore is seems to be reasonable to consider an approach, where this inconsistency (two different reference periods associated within one measure) is rooted out. When using the amount of the current monthly household income (CMHI) the income – which is utilised as measure for the financial well-being of the household – the information on the household income has the same reference period as the household composition (for which the financial well-being should be measured). The question is, to what extent is the CMHI a proper measure for the financial well-being or the (financial) standard of living of the household.

The first part of this paper will discuss the inconsistencies observed when using the annual household income (based on the last calendar year). The following part will discuss the suggested alternative approaches to deal with these inconsistencies or to circumvent their consequences. The third part will assess the CMHI as possible alternative indicator and aim to evaluate its suitableness as measure for the standard of living of the household.

#### Inconsistencies of the household income measurement

The standard approach of many income surveys dealing with the household income is to take the annual income information of the prior calendar year and connect this income information to the household information from the time of the interview. The income information is used as a measure for the financial situation of the household. This can be illustrated by the following formula, where Y denotes the income and E the Equivalence weight for the household. This results, then, in the equivalised household income  $Y_{\rm I}$ .

$$Y_{i_hT}^* = \frac{\sum Y_{h_d, T-1}}{E_{h_d}}$$

Numerator = Sum of the incomes of all household members at the date of the interview, summing up all incomes of the calendar year -1, thus the last years income

Denominator = the equivalence scale, equivalence weight for the household built by the household members at the time of the interview

People conceptualising the household income like this are aware that this constitute problems. But the concept is easy to communicate and to implement. The income of the last

<sup>&</sup>lt;sup>1</sup> This definition applies to most participating countries, UK and Ireland are and exception and use the income of the last 12 months before the interview date.

<sup>&</sup>lt;sup>2</sup> This project was conducted in all EU-SILC countries prior to EU-SILC. Overall, the ECHP was conducted from 1994 – 2001, though some countries like Austria (1995) and Finland (1996) started later in the process (due to accession to the EU in 1995).

year is not an indicator of the current financial situation itself. Accordingly the annual income information of the last year is interpreted as a proxy for the current situation.

But obviously this conceptualisation connects two reference periods: on the one hand the time of the interview, which determines the composition of the household<sup>3</sup> and the calendar year which determines which and what income (component) constitutes a part of the household income. Any inconsistencies between these reference periods may lead to problems for the interpretation of the income situation of the household.

Inconsistencies of this kind may result from two different changes:

- (1) Changes of the household composition
- (2) Changes of the income situation

Changes of the household composition seem to be the main problem of this standard approach of income measurement. The underlying problem is best explained by an example (Figure 1). Think of a household interviewed in the year 2016 which consists of three persons: Paul, Erna and Maria. For these three persons the incomes of 2015 are collected (in the survey of 2016), the household income is calculated as the sum of the incomes of these three persons in 2015. But in fact the household in 2015 consisted of four persons: Alfred, Erna, Maria and Peter. So, actually, the incomes for example of Maria and Erna contributed to a household income (in 2015) that is quite different to the household in 2016. The incomes of 2015 of the household 2016 would have been the sum of the incomes of Alfred, Erna, Maria and Peter. The income of Paul of the year 2015 on the other hand, which is calculated as part of the household income (in 2016) was actually (part of) the household income of a totally different household. And the income of Peter, who has left the household (and maybe the survey) between 2015 and 2016, which was part of the household income of 2015 is not gathered at all in 2016.

Figure 1: Example for the change of household composition

2015	2016
Alfred	Paul
Erna	Erna
Maria	Maria

Peter

In a sole cross-sectional survey these changes of the household composition are normally unobserved – but nonetheless "effective" as they introduce a bias in the measurement of the household income situation. In an integrated longitudinal and cross-sectional design as for EU-SILC or in a full longitudinal design (like the ECHP) these changes of the household composition can be detected and measured.

A first indication is whether the size of the household changes from one year to the other. In EU-SILC this can be observed only for these parts of the sample that are interviewed in consecutive years (roughly three fourth of the full sample). Between 2015 and 2016 4.015 households were interviewed in EU-SILC in Austria (without split-households). Of these, 348 households (9%) changed their household size. 166 household were smaller 2016 than 2015 (4%), 182 (5%) were larger.

<sup>&</sup>lt;sup>3</sup> This depends on the definition of the household member: Surveys may not only count the current persons living in the household as household members but also for example persons living in boarding schools or halls of residence.

Table 1: Change of the household size between 2015 and 2016 in the sample of EU-SILC in Austria

	Househol	d size 2010	6								
	1	2	3	4	5	6	7	8	9	10	Total
1	1.370	56	13	2	0	0	0	0	0	0	1.441
2	56	1.301	47	4	0	0	0	0	0	0	1.408
3	3	42	449	35	3	1	1	0	0	0	534
4	3	3	35	392	12	2	0	0	0	0	447
5	0	0	2	14	113	4	0	0	0	0	133
6	0	0	0	2	2	23	2	0	0	0	29
7	0	0	0	0	1	2	15	0	0	0	18
8	0	0	0	0	0	1	0	1	0	0	2
9	0	0	0	0	0	0	0	0	2	0	2
10	0	0	0	0	0	0	0	0	0	1	1
Total	1.432	1.402	546	449	131	33	18	1	2	1	4.015
,		N	%				N	%			
Equal size		3.667	91		HH smaller		166	48			
Different size		348	9		HH larger		182	52			

These numbers only relate to the Austrian example, these rates maybe smaller or larger in other countries, depending on the household dynamics. This also hints to the fact that these dynamics are different for different population groups and may differ for example by age and between urban and rural areas.

As explained for the example household above, the (change of the) size of the household is only one indication of inconsistencies of the household composition. For example in a situation where two persons (person A and person B) are living together in on household in on year and in the following year one of these two persons (person B) has left the household and another person (person C) moved into the household. So the household size stayed the same – but the income reported for this household (the annual income of the last calendar year for persons A and C) is not the correct household income for this household in the last year. And it additionally may not be the correct approximation for the household income of the current household, consisting of person A and C).

The example of the household with a constant household size but a changing composition already indicated that not only changes of the household composition are a problem. Also changes of the income situation itself can constitute inconsistencies. Taking the above example of Maria in the household and assuming that Maria worked part-time in 2015 and full-time in 2016. Most likely, also her income situation will have changed from 2015 to 2016. Hence, the income reported for Maria 2016, referring to the annual income of 2015 will refer to an income situation where the income is smaller than the income in 2016. Therefore, the last years' income is possibly not the best approximation for the assessment of the current financial well-being of Maria.

Figure 2: Example for the change of employment status / income situation

2015	2016
Maria	Maria Maria
w orking part-time	w orking full-time

Changes of that kind occur, taking alone the different main activity status reported in EU-SILC for Austria between 2015 and 2016 (Table 2). Here, 820 (12%) of the 7.016 persons above 16 years old reported a change of the main activity status. The main changes were from employment into another status (like unemployment, maternity leave, retirement etc.) or into employment from another status (unemployment, maternity leave, pupil/student etc.). Most likely, these changes also changed the income situation of the person. It is important to note that this table is only a rough assessment of the changes of the employment situation. Here, there is no differentiation between full-time and part-time work or different employments (different jobs, different wages). And of covers – only the main activity of the persons are covered.

Table 2: Change of the main activity status between 2015 and 2016 in the sample of EU-SILC in Austria

						Mai	n activity s	tatus 201	6				
		Employed	Self-employed	Family worker	Unemployed	Maternity leave	Pupil/student	Retired	Not in empl. due to sickness etc.	Civil/military service	Homemaker	Not in empl. for other reasons	
	Employed	2.936	27	0	86	49	16	42	10	7	21	4	3.198
	Self-employed	20	375	7	4	0	1	12	2	0	7	1	429
	Family worker	2	6	2	0	0	0	2	0	0	1	0	13
2	Unemployed	80	16	0	139	6	3	14	11	1	11	1	282
us 201	Maternity leave	40	2	0	5	64	1	0	1	0	13	0	126
Main activity status 2015	Pupil/student	55	4	0	12	1	259	0	0	7	2	8	348
activi	Retired	4	3	2	1	0	0	2.154	15	0	36	0	2.215
Maii	Not in employment due to sickness etc.	3	0	0	12	0	0	8	22	0	1	2	48
	Civil/military service	9	0	0	2	0	2	0	0	1	0	2	16
	Homemaker	17	2	1	4	12	1	33	2	0	243	5	320
	Not in employment for other reasons	2	1	0	7	1	2	3	2	1	1	1	21
		3.168	436	12	272	133	285	2.268	65	17	336	24	7.016
			N	%									
	Equal activity status		6.196	88									
	Different activity status		820	12									

In combination – changing household composition and changing income/employment situation – this can even create household without any household income: For example when a couple consists of a man in employment living together with a woman not in employment in one year. In the following year the couple has split and the woman – now in employment – lives alone in the household. If the income of the woman is recorded, referring to the income of the last year, the woman does not have any income at all. This would create a household without income – and the information about the household, income, employment situation etc. is totally correct. The income situation is not affected by measurement error. But the conceptualising the income situation or living standard like that causes interpretational problems.

However, changes of the household composition either affecting the household size or not, introduce problems for the measurement of the income situation of the household. As it will be discussed in the next section, various methods aim at controlling for these changes – to a smaller or a bigger extent.

#### **Possible Alternatives**

The awareness of about inconsistencies is one requirement for a solution but not the only one. The survey or researcher also has to have the means to develop a solution. In the case of a sole cross-sectional survey, where incomes in most of the cases only can be gathered via retrospective questions (or using – retrospectively – register information about past incomes) there are simply not many possibilities to develop a solution for these inconsistencies. So possible alternatives discussed here require longitudinal information about households, that is: more than one observation of the household and its income situation.

The concept of linking the current household composition/situation with the last years' income dates back, at least in the European context, to the ECHP. This survey started 1994, so 24 years ago. The problems with this concept are also understood for quite a long time, so there are several methods to deal with these inconsistencies.

One of the first possible solutions was the lagged income approach, linking the sum of the incomes of all household members at the date of the interview (gathered by the interview in the following year) with the household composition at the date of the interview. For example for 2015 the household composition of 2016 is taken to calculate the household income (incomes of 2015, gathered in the survey 2016) but equivalised by the equivalised weights of 2015. So the household income is correct (the household income of 2015) but this conceptualisation links two different household compositions together. This concept shifts the problem of inconsistencies — and adds some challenges. For example the calculation requires two measurements for the calculation; hence for the first year of the survey no income information is available.

The Interdisciplinary Centre for Comparative Research (ICCR), the Austrian Institute which as responsible for conducting the Austrian ECHP, developed a similar method, where the household composition of one year is linked to the household incomes of this year, which are gathered in the following year. So the households of 2015 are linked to the household incomes of 2015, albeit these incomes are only gathered in 2016. In the case of changes of the household composition this may lead to problems since e.g. persons that where not interviewed in the following year would not have any income. Thus this method designs households composed only by those persons that are existing in the household in two consecutive years. Evidently, in this way the incomes are correct but the recording of the living conditions of households and the situation of households is biased. Additionally, as with the aforementioned approach this approach requires measurements in two consecutive years, in the first year of the survey there are no results.

A more elaborated approach was suggested by Annelies Debels and Leen Vandecasteele (2008), were incomes recorded in the following year are linked to the household composition of the current year with reference to the correct household composition (equivalence weights) – but for each month separately. This method requires to have full information on the household composition in each month and full information on the household income in each month, thus persons that where members of the household in a specific month but where not interviewed in the next years' interview do not contribute to the households income. Apart from being relatively complicated and necessitating difficult requirements this approach nonetheless cannot fully solve the problems connected to the time-lag related inconsistencies since some persons were still excluded from the calculation of the household income.

Overall, all three approaches to correct for the inconsistencies of the standard approach aim at particular aspect of the problem: either the correct household composition or the correct household income (with the correct income reference year) or the correct changes of the household composition (taking into account changes during the year). But neither approach can solve all problems altogether, at least one aspect stays unsolved. Moreover, each approach necessitates two consecutive surveys for the calculation of the household income of one year. This means that at least the first wave of such survey cannot be used fully. So these approaches do not use the full information available. Nonetheless, particularly for the analysis of the connection between financial poverty and other aspects of poverty (like deprivation) it seems reasonable to scrutinise alternative approaches.

#### Current monthly household income as possible indicator

The basic idea of the following part is simple: if the main problem connected with the standard approach is the inconsistency between income and household composition (and any alternative fails to provide satisfying results), the solution is then a concept where there is no inconsistency between household income and household composition.

Therefore it is reasonable to think about the income concept, or about the aim of gathering the income information: the aim is to record the best possible information about the financial situation of the household, coherent with the information about the members of the household. Survey dealing with the information about the last years' income normally aim at gathering the annual income of the household. This, for example, is also the

recommendation of the Canberra handbook. The advantage of the annual income is that it also covers seasonal effects, lump-sum payments and other non-regular payments during the year.

The goal of the income measurement is an adequate measure for the income situation of the household or the financial situation of the household. The income situation, then, should enable the research to assess whether a household lives in poverty or not. Critics have pointed out that a full assessment should also take into account wealth, debts, savings – or in general all possible ways to transfer finances in time.

One simple possible solution to get a quick, easy to edit measure of the financial situation of the household is to ask the household directly about the household income. In the Austrian EU-SILC, this question asked in this way:

GERMAN: Was würden Sie sagen, wieviel Einkommen Ihrem Haushalt netto pro Monat zur Verfügung steht?

ENGLISH: What, in your opinion, is the income of your household per month that is at your disposal?

Apparently, this measurement of the household income suffers from certain shortcomings compared to the annual household income:

- The measurement is possibly depending on the persons giving the information: a
  good measurement requires full or at least good information about all incomes
  received by every member of the household. This challenge is getting bigger with the
  household size: having full information in a large household is possibly harder than in
  a small household.
- A measurement like this is a singular measurement: the income situation at the time
  of the interview. Here, the answer may differ whether the question is for the "current"
  household income (per month) or the household income in a "normal" month.
  However, such a singular measurement may have its difficulties to take into account
  seasonal effects and irregular or lump-sum payments
- For a measurement like this it is hardly possible to use register information on the income, an advantage at least some countries are already using for the income measurement. Because of the time-lag normally associated with register data, these data may not be available in near-term
- Household may deduct some fixed costs (like rent payments, mortgage payments) and give only a kind of "available, disposable income"

On the other side, this measurement may overcome difficulties connected with the annual household income:

- The question and subsequent editing is easy and not time consuming, so findings are available shortly after data collection
- There is no time lag between household composition, employment situation or any household related changes and the income situation. This may also make it easier to analyse the connection between income and deprivation within households

The question, then, is about the relation between these two approaches of measuring the income situation of households: the current monthly household income and the annual household income. The following will compare the two approaches

The following table compares the two distributions of the current monthly household income CMHI and the annual household income AHI of EU-SILC 2016; the three columns on the right side of the table give the results for the equivalised incomes.

The distributions of the CMHI are in general less unequally distributed than the AHI (Gini 21,0 vs. Gini 28,7). The mean of the CMHI is 15,4 times smaller than the AHI, the factor is smaller on the lower margins of the distribution and larger on the upper margin. The ratio of AHI and CMHI also show that the monthly is not only one twelfth of the annual income. This

ratio may vary between countries; in Austria particularly holiday allowances and Christmas allowances are of importance.

Table 3: Current monthly household income and annual household income EU-SILC 2016 (equivalised and non-equivalised)

	Househ	old	Proportion	Equival	Proportion	
	HY020	CMHI	HY020/CMHI	EPINC (HY020)	CMHI Equ	HY020/CMHI
Mean	40.752	2.646	15,4	26.054	1.683	15,5
10%	14.313	1.000	14,3	12.783	847	15,1
20%	19.374	1.300	14,9	15.825	1.034	15,3
30%	23.898	1.610	14,8	18.518	1.200	15,4
40%	29.163	2.000	14,6	21.062	1.380	15,3
50%	34.911	2.300	15,2	23.694	1.533	15,5
60%	41.309	2.700	15,3	26.386	1.667	15,8
70%	48.713	3.000	16,2	29.620	1.905	15,6
80%	57.624	3.612	16,0	33.572	2.150	15,6
90%	71.707	4.500	15,9	40.593	2.600	15,6
Gini	28,66	20,98	1,4	27,20	20,42	1,3
P90/P10	5,0	4,5	1,1	3,2	3,1	1,0
S80/S20	5,4	4,3	1,3	4,1	3,7	1,1

Source: EU-SILC 2016

The next table compares the deciles of the two equivalised distributions; hence whether the categorisation within one decile is preserved. For about one third of the population the income decile is the same in both distributions (32%), for another third the categorisation is nearly the same (36%, adjacent decile). So, for about two thirds of the population the position within the income distribution is (nearly) the same in both distributions. For the upper half of the distribution the accordance between the two distributions is higher.

Table 4: Income deciles of the equivalised Current monthly household income and annual household income EU-SILC 2016

Income decile equivalised annual household income Total Income deciles equivalised current monthly household Total Ν Equal decile Nearly equal decile Different decile 

In the following the at-risk-of poverty rate, calculated on the basis of the CMHI is compared to the poverty rate on the basis of the annual income. The at-risk-of-poverty rate based on the current monthly household income is 13,7% - compared to the poverty rate of EU-SILC 2016 of 14,0% <sup>4</sup>. The difference between poverty rates, then, is comparatively small. About 7,5% are at-risk-of-poverty measured by both definitions, slightly more than 6% are at-risk-of-poverty only by one of the two measures. So roughly for one half of the people at-risk-of-poverty the two measures are consistent, for the other half different persons are classified at-risk-of-poverty.

<sup>&</sup>lt;sup>4</sup> For the calculation of these rates the 234 persons without current monthly household income are not considered. The at-risk-of-poverty rate for EU-SILC 2016 is 14,1%

Table 5: At-risk-of-poverty by current monthly household income and by annual household income

At-risk-of-poverty by annual household income

		. ,	
At-risk-of-	6.729.573	554.372	7.283.945
poverty by	529.710	630.874	1.160.584
CMHI	7.259.283	1.185.246	8.444.529
		%	
At-risk-of-	79,7	6,6	86,3
poverty by	6,3	7,5	13,7
CMHI	86,0	14,0	100,0

Source: EU-SILC 2016

The question is, then, which population groups are affected – for which population groups do the at-risk-of-poverty rate change when the CMHI is used? On average the poverty rate is slightly lower (0,5%). By age group the changes are only modest. By region the principal pattern stays the same: people in cities are more often affected by (income) poverty than persons in smaller communities – but the differences between regional groups are lower, when the CMHI is used. The same pattern can be observed by educational attainment: the general pattern stays the same (people with lower education face a higher risk of poverty) but the differences between educational attainment groups are smaller. This is maybe the effect of the income distribution which is more equal – hence differences between groups are therefore maybe smaller.

With regard to the household type the at-risk-of-poverty rate of one—person households is smaller with the CMHI but higher for households with more than one child. This possibly supports the assumption that the CMHI tends to underestimate the income situation of larger households.

Overall, the at-risk-of-poverty rate based on the current monthly household income seems to reproduce the patterns observed with the standard approach of poverty measurement in EU-SILC.

Table 6: At-risk-of-poverty by current monthly household income and by annual household income by socio-demographic variables

	Total in	AROP CMHI		AROP	AHI
	1.000	in 1.000	%	in 1.000	%
TOTAL	8.590	1.161	13,5	1.208	14,1
Age					
>= 19 years	1.773	292	16,5	289	16,3
20 to 39 years	2.130	325	15,2	346	16,2
40 to 64 years	3.144	347	11,0	370	11,8
65 years +	1.543	196	12,7	203	13,2
Region					
Vienna	1.776	313	17,6	352	19,8
Other cities > 100.000 inhabitants	701	107	15,3	135	19,3
Cities >10.000 and <=100.000 Inhabitants	1.510	187	12,4	195	12,9
Municipality <=10.000 Inhabitants	4.604	553	12,0	526	11,4
Highest educational attainment					
Max. compulsory school	1.514	380	25,1	334	22,1
Vocational training	3.541	360	10,2	355	10,0
School leaving examination	1.163	126	10,8	176	15,1
University	1.036	66	6,4	112	10,8
Citizenship					
Austrian	7.343	739	10,1	714	9,7
Thereof: naturalised (Not EU/EFTA)	299	66	22,0	47	15,8
Not Austrian	1.247	421	33,8	494	39,6
Thereof: EU/EFTA	579	121	21,0	184	31,8
Thereof: Not EU/EFTA	669	300	44,8	310	46,4
Household with old-age benefit as main source	of income				
Together	1.613	186	11,5	180	11,1
One-person household male	154	14	9,1	18	11,4
One-person household female	328	54	16,4	65	19,7
Multi-person household	1.131	118	10,5	98	8,6
Households without old-age benefits					
Together	6.977	975	14,0	1.028	14,7
One-person household male	492	84	17,1	121	24,6
One-person household female	456	100	21,9	114	25,0
Multi-person household without children	2.047	157	7,7	192	9,4
Household with children	3.982	633	15,9	600	15,1
Single-parent household	303	68	22,5	91	29,9
Multi-person household + 1 child	1.450	130	9,0	133	9,2
Multi-person household + 2 children	1.458	201	13,8	180	12,4
Multi-person household + 3 children and more	771	234	30,3	196	25,4

Source: EU-SILC 2016

#### **Conclusions**

The paper discussed the current monthly household income as an alternative approach to assess the financial situation and calculate the at-risk-of-poverty rate of private households. The examples were calculated on the basis of EU-SILC in Austria. The current monthly household income avoids the problems connected with the standard approach of household income measurement. These problems root in the inconsistencies coming with the time gap between the reference period of the household income and the reference period of the household composition. Several alternative approaches aimed at overcoming these problems – but were not fully satisfying and introduced new challenges.

The current monthly household income is an "easy" measure, the income information is collected in one single question and does not necessitate much data editing. Thus, the income information is timely available short after the data collection process. And the income information is directly linked with the current household composition and other questions with the time of the interview as reference period (for example all deprivation items).

In comparison with the annual household income the current monthly household income has a more equal distribution. The monthly income is – particularly in Austria but maybe also in other countries) – not one twelfth of the annual income, thus underestimating the income. The distribution of the income deciles is to a great extend consistent with the annual household income. This also can be said about the at-risk-of-poverty rate based on the

current monthly household income: the results are consistent and comparable with the results from the annual income.

Overall, the current monthly household income seems to be a suitable complementary measure for the income situation of households. Particularly for surveys that cannot extensively elaborate on the income measurement like EU-SILC, the current monthly income seems to be a useful alternative approach. Further research for measurement problems of the current monthly household income can help to improve not only this but also any other approaches of income measurement.

#### Literature

Debels, Annelies / Vandecasteele, Leen (2008). The time lag in annual household-based income measures: assessing and correcting the bias. In: Review of Income and Wealth, Series 54, Number 1, March 2008, p.71-88