



Poverty Measurement in Switzerland

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Abstract

This paper deals with official poverty measurement in Switzerland. The first part gives a brief overview of the different poverty concepts applied by the Swiss Federal Statistical Office (FSO). The second part highlights a few methodological issues concerning these measurements. The analyses are based on the European Statistics on Income and Living Conditions (EU-SILC).

Poverty is often considered as a multidimensional phenomenon that cannot be defined independently of the ideal of a particular society. In countries such as Switzerland where physical survival is generally given, the statistical definition of poverty contains more than the most basic needs and embraces minimal participation in a socially integrated life. To give a comprehensive picture of poverty in Switzerland and to comply with the need for international comparability of the results, different concepts and thresholds are used by the FSO. These are: the concept of absolute poverty that is based on a poverty line amounting to the Swiss social subsistence level, the European standard concept of relative poverty (cut-off point: 60% of median equivalised disposable income) and another European indicator measuring material deprivation to record the non-financial aspects of poverty.

While the three approaches identify largely the same vulnerable population groups, there are some important differences. Some of these are considered here: firstly, the population aged 65 or over shows high rates of absolute and relative poverty but a low rate of material deprivation. Secondly, large families with three or more children have a high relative poverty rate, while their absolute poverty rate and material deprivation rate are not higher than average. Lastly, persons under 65 years old who live alone have high rates of absolute poverty and material deprivation, but a rather low rate of relative poverty. These findings are linked to the measurement of disposable income (the so-called Canberra definition) which does not include wealth and the use of different equivalence scales in the two financial poverty concepts.

Our findings clearly illustrate that no single indicator can measure all aspects of poverty. In order to address all relevant target groups and thus provide the statistical basis to combat poverty in Switzerland, it is therefore important to dispose of a set of indicators and not to rely on just one indicator.

1 Introduction

Since 2012, the Swiss Federal Statistical Office (FSO) has published poverty statistics based on the European wide SILC survey (Statistics on Income and Living Conditions).¹ Various indicators and definitions of poverty are used in the process in order to present the situation in Switzerland as comprehensively as possible. The most important three concepts are presented in chapter 2 of the paper: the relative poverty concept, the absolute poverty concept and the concept of material deprivation.

If several indicators are depicted side by side, various results may be found that are not always easy to explain at first glance. In chapter 3, three population groups (persons of retirement age, single persons under 65 years and persons in households with two adults and three or more children) are examined in further detail. The indicators used for these three groups result in various findings and the reasons for these differences are also illustrated.

Finally, chapter 4 summarises the results and points to further (possible) work in this area.

2 Poverty concepts and operationalisation

Poverty cannot be defined independently of values. The question of what is meant by poverty and when a person is to be considered poor cannot be answered on the basis of unambiguous, objective and generally accepted criteria. On the contrary, it varies depending on perspective and the social, cultural and political context. For this reason, a number of approaches are used in research to statistically measure poverty.

The distribution of opportunities in life, living conditions and social status is largely determined by income and wealth in modern societies. Consequently, financial resources play a key role in measuring poverty (Leu et al. 1997). The focus of the FSO's poverty statistics is therefore on the financial resources of households and thus on financial poverty.

Two approaches are used here: the relative approach that is based on income distribution and the absolute approach that assumes a minimal need. In order to also depict the non-financial aspects of poverty, a material deprivation rate is calculated that shows how many people have to forgo important consumer goods for financial reasons or if there is deprivation in key areas of life.

The three concepts are presented theoretically hereafter and their implementation at the FSO briefly explained.²

2.1 Relative poverty concept

At international level, a definition of poverty based on relative thresholds is common. According to this definition, persons in households with an income that is considerably below the standard income level of the country concerned are considered as poor. Pursuant to this relative concept, poverty corresponds to a form of social inequality (Atkinson & Marlier 2010, Leu et al. 1997). Whether a person is poor therefore depends not only on his or her own economic situation (or that of its household) but also on the standard of living in the country where he or she lives. As this indicator can be calculated everywhere in the same way regardless of country-specific factors such as social legislation, it may thus be used for international comparisons.

¹ The current results of the Swiss poverty statistics are available from www.statistics.admin.ch → Topics → Economic and social situation of the population → Standard of living, social situation and poverty.

² A detailed presentation of the theory and methodology can be found in FSO (2012a).

In concrete terms, a person is classified as poor if his or her equivalised disposable income³ is below the relative poverty threshold. The most common international relative poverty thresholds are set at 50% and 60% of the total population's median equivalised disposable income. While both thresholds are used in the Swiss poverty statistics, the observations in this paper are limited to the relative poverty threshold of 60%.

2.2 Absolute poverty concept

According to the absolute poverty concept, poverty is defined as falling below a defined subsistence level. The absolute poverty concept adopted by the FSO is founded on a needs-based definition of a social subsistence level that not only guarantees physical survival but also a minimum level of participation in social life. People are considered as poor if they do not have the means to buy goods and services that are necessary for a socially integrated life. This approach has the advantage that the measurement of poverty is based on the needs of the people affected by it. In Switzerland, the social subsistence level is defined in the guidelines of the Swiss Conference for Social Welfare (SKOS), which serve as a reference for assessing social assistance entitlements and are generally accepted. The FSO's absolute poverty threshold is based on these guidelines.⁴ It consists of the following three components:

- **Basic needs** covers expenditure for food, clothing, personal care but also expenditure for transport, entertainment, education or association fees. For this purpose, the SKOS guidelines establish an amount that is standard throughout Switzerland, classified by household size and adjusted to price development every two years (SKOS 2010).
- For most people, **housing costs** represent a considerable part of the budget. Pursuant to the SKOS guidelines, they must not exceed customary regional housing costs (SKOS 2012b). In the poverty threshold, effective housing costs (rent or mortgage rates including accessory charges) are allowed for up to a certain upper limit. The upper limit is calculated from Social Assistance Statistics data on contributions to housing costs actually paid by Social Assistance. They are classified by household size and are separately calculated for rural and urban areas.
- For certain **other necessary expenditure** such as liability insurance or other insurance premiums, CHF 100 is also considered in the poverty threshold per month and person aged 16 or over in the household. As a result, the poverty threshold is slightly above the basic material minimum and therefore better corresponds to the social subsistence level.

A poverty threshold is derived from these components for every household. This threshold is then compared to the disposable household income⁵. If income lies below the poverty threshold, all persons in the household concerned are considered to be poor.

2.3 Material deprivation

Indicators to measure material deprivation can also be used to consider the non-financial aspects of poverty. Such measures describe provision in several, centrally applicable areas of life. Material deprivation is spoken of if, for financial reasons, people are deprived in elementary living conditions

³ The equivalised disposable income is calculated using the disposable household income (gross household income including imputed rent minus social insurance contributions, taxes, basic health insurance premiums, alimony and other maintenance payments) in which the size and the composition of households is considered by using an equivalence scale (modified OECD scale, cf. T 1 on page 8). This allows for savings which result from the communal economic activity of a household with several persons.

⁴ Social assistance in Switzerland is regionally regulated and strongly geared towards individual cases which is why the SKOS norms allow for some room for manoeuvre. Therefore, the statistical poverty threshold can only approximately illustrate the guidelines (also see SKOS 2012a). Consequently, no entitlement to social assistance can be derived from the poverty statistics.

⁵ According to the absolute poverty concept, income is not equivalence weighted as the weighting already takes place via the poverty threshold. As this also contains the effective housing costs, the imputed rent is also not considered in income.

and/or of household consumer durables that are regarded as essential by the majority of the population.⁶

Here, the proportion of the population subject to material deprivation in one or several areas can be investigated, as well as the number of areas and thus the intensity of material deprivation. The investigation of overlaps between financial poverty and material deprivation can in particular provide insights into the situation of population groups whose financial situation is assumed to be incompletely or insufficiently depicted with the recorded income (e.g. self-employed persons or pensioners).

Firstly, the FSO's poverty statistics examine the proportion of the population affected by all of these deprivations or problem situations. Secondly, a material deprivation rate is calculated according to the Eurostat specifications. For this purpose, the following nine indicators of material deprivation are combined to form an index:

- To be able to face unexpected financial expenses of CHF 2000 within a month
- To be able to finance a one week holiday away from home once a year
- To have no arrears in the following expenditure: mortgage or rent payments, utility bills, hire purchase instalments or other loan repayments
- To be able to afford a meal with meat or fish (or vegetarian equivalent) every other day
- To be able to keep their home adequately warm
- To own a washing machine (or to have access to a washing machine)
- To own a colour TV
- To own a telephone
- To own a car

If a person is deprived in at least three of these nine categories, he or she is designated materially deprived.

3 Analysis of selected risk groups by various measurement concepts

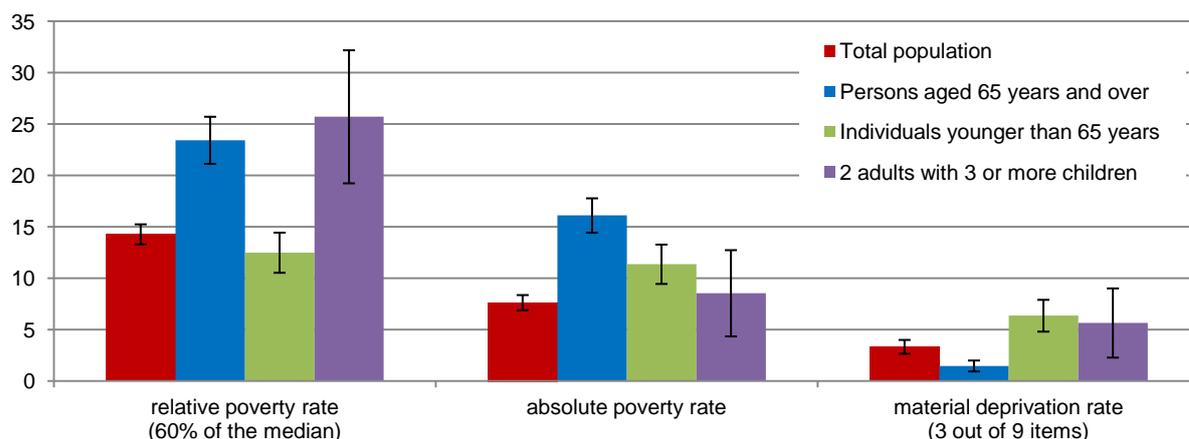
If one considers the three main indicators presented in the first part by sociodemographic characteristics, the same risk groups are identified to a large extent.⁷ In the case of all three measurement concepts, people in single-parent families and those without post-compulsory education are particularly at risk. However, in some population groups, the three indicators lead to different results which is why these are examined in further detail below (cf. G 1):

- **Persons of retirement age (from 65 years)** show above-average relative and absolute poverty rates. However, their material deprivation rate is the lowest of all age groups.
- **Persons living alone under 65 years** show a particularly high absolute poverty rate and material deprivation rate. Pursuant to the relative poverty concept, however, this group has a slightly below-average risk (although the difference is not significant).
- **Persons in households with two adults and three or more children** have an above-average relative poverty rate. According to the absolute poverty concept and the material deprivation concept, however, increased cases cannot be established.

⁶ Various questions are asked on the subject of material deprivation in the SILC survey. In the process, respondents are always initially asked whether a particular deprivation exists. If a particular deprivation does exist, they are then asked whether the deprivation is financially justified. One question, for example, is: "Can your household afford to go on holiday at least one week per year?" If the answer is no, the next question is: "Is this for financial or other reasons?" This is meant to ensure that voluntary sacrifices or other non-financial reasons (e.g. health problems) are not misinterpreted as deprivation.

⁷ Population groups that have a statistically significant higher rate than the total population are considered as risk groups here.

G 1 Poverty indicators of selected population groups, 2011, in %



Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

3.1 Persons of retirement age

The economically active population and pensioners particularly differ with regard to the type and composition of the household income and ways to influence their income.

In the case of persons of retirement age, poverty measurement oriented towards financial aspects is always associated with the issue of whether the old age provision system does effectively provide security for the older population. With its three pillar system, Swiss old age provision shows some particularities that can lead to difficulties in the statistical recording of benefits.

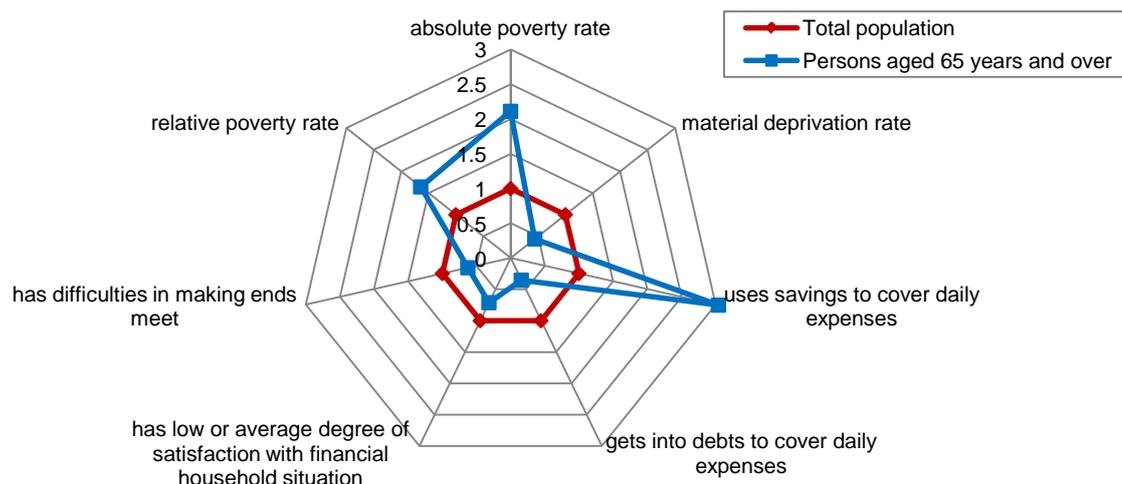
The old age provision system in Switzerland is composed of an obligatory, state basic insurance, financed by pay-as-you-go payments (old-age and survivor's insurance, first pillar), as well as a capital-covered, occupational pension plan that is also obligatory for most employees (second pillar) and a voluntary but tax-advantaged private plan (third pillar). First pillar benefits must be paid out in the form of a monthly rent. However, in the case of the second and third pillars, the insured parties can choose whether they would like to receive the saved contributions as a monthly pension or as a lump sum payment.

For the statistical recording of retirement benefits, only monthly pensions are considered as income. Lump sum payments, however, are classified as capital transfers. As many people of retirement age may keep a considerable part of their financial means as assets, disposable income is of only limited use as an indicator for the position of older persons in the distribution of economic well-being. Assets are neither considered in the absolute nor the relative poverty concept.⁸ Consequently, households that maintain their livelihood completely or partly through assets may be identified as poor.

In Switzerland, it is therefore particularly important to base statements on poverty of persons of retirement age on broader information. This can be achieved by considering additional indicators for material deprivation and subjective assessment of the financial situation. G 2 shows a selection of supplementary indicators. For ease of comparison, these indicators are standardised to 1 by dividing the values of the persons of retirement age by the value of the total population. Values above 1 signify that an above-average proportion of people are affected. The greater the proportion of people affected, the higher the value.

⁸ In both cases, the income definition corresponds to the Canberra Group specifications (2011).

G 2 Various poverty indicators for persons of retirement age, 2011



Standardised values: values are divided by the total population value for every indicator. If values are greater than 1, the proportion of people concerned is thus greater than among the total population. In the case of values less than 1, it is smaller.

Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

G 2 shows that from the indicators selected, only the two income-based poverty concepts (relative and absolute poverty rate) indicate that persons of retirement age could be worse-off than the population as a whole. In contrast, Switzerland's aged population is far less likely to be affected by material deprivation than other age groups.⁹ Furthermore, persons aged 65 or over are far less likely to have difficulties in making ends meet, they get into debt less often and have the lowest level of discontent with their financial situation out of all age groups. Nonetheless, they declare far more often that they use their savings to cover daily expenses. The additional indicators thus indicate that by taking only income into consideration, the extent of poverty of persons at retirement age may be overestimated.¹⁰

This finding is confirmed if one not only looks at income but also includes wealth estimates in the analysis.¹¹ G 3 shows that the relative poverty rate of the old age population would be far lower if only persons up to a certain upper wealth limit were considered. Furthermore, the lower the selected upper limit, the lower this rate. In this way, the relative poverty rate of persons aged 65 or over with a maximum household wealth of CHF 50,000¹² is around half as high than if there is no limit (11.5% compared with 23.4%). In the case of an upper limit of CHF 30,000, the difference between the relative poverty rates of the different age groups is no longer significant (persons aged 65 or over: 8.7%. Persons aged 18-64: 7.7%).

In the case of limitation of wealth, the relative poverty rate of persons of working age (18 to 64) also decreases, but to a far lesser extent. This may be used as a sign that assets in this age group are of lesser importance than among the older population.

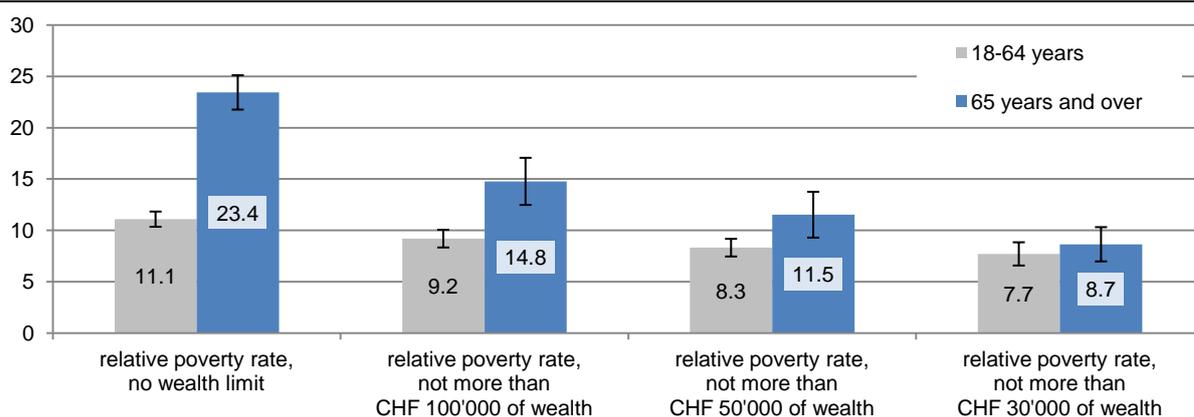
⁹ Even if only a small percentage of those of retirement age have to refrain from certain goods due to financial reasons, this does not necessarily mean that people in this age group indeed own these goods. For example, in 2010, 28% of persons aged 65 or over lived in a household without a car (compared to 11% of 18-64 year olds), however, only 14% of these refrained from doing so for financial reasons (FSO 2012a).

¹⁰ However, it is assumed that there are large differences within this group. For instance, persons who mainly depend on the old age and survivor's insurance and are unable to rely on a 2nd or 3rd pillar are far less likely to maintain their standard of living after retirement (cf. FSO 2012a and 2012b).

¹¹ The SILC survey includes some questions on the household's wealth. However, these have not been subsequently tested and do not meet the standards recently published by the OECD (cf. OECD 2013). Therefore, details of wealth are only incorporated here for a sensitivity analysis.

¹² The upper wealth limit refers to the gross wealth of the household, calculated as the sum of all its possible funds, securities, real estate property as well as valuables exceeding CHF 20,000. It is applied regardless of household size here. By way of comparison: In general, social assistance allows for a maximum asset allowance of CHF 10,000 per family. In the case of supplementary old age and survivor's insurance benefits, which are more important among pensioners, assets greater than CHF 37,500 (single person) or CHF 60,000 (married couple) are partly offset against income.

G 3 Influence of wealth on the relative poverty rate, by age group, 2011, in %



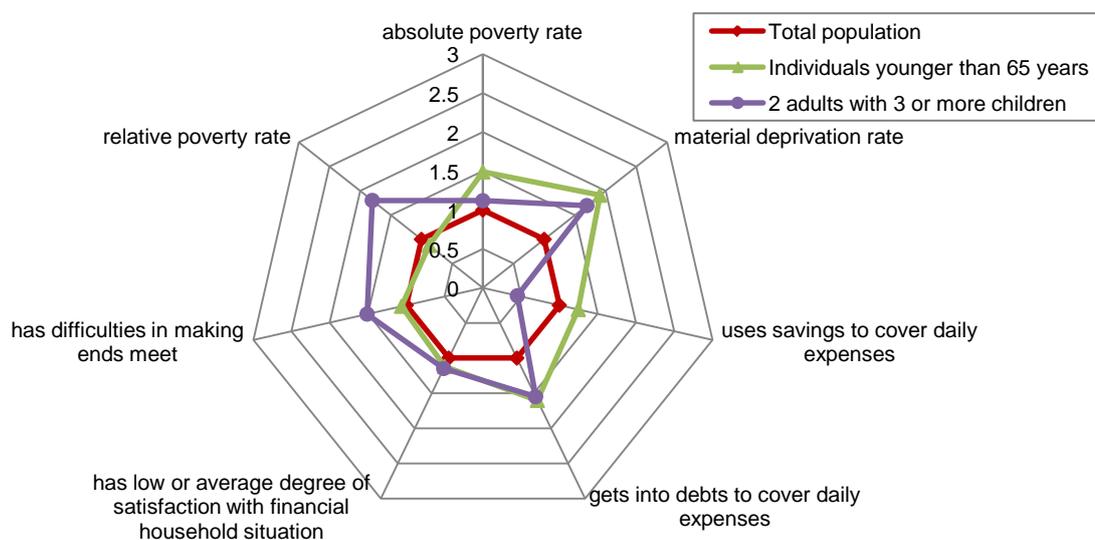
The wealth limits refer to the gross household wealth and are applied regardless of household size.

Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013, with imputed rent

3.2 Individuals under 65 years and families with three or more children

Additional indicators may also enhance interpretation for the other two risk groups specified (cf. G 4). However, unlike for persons aged 65 or over, a rather balanced picture emerges. Although most indicators suggest that both population groups tend to be worse off than the total population, there are hardly significant differences with the total population. Most values (standardised once again) are correspondingly close to 1.

G 4 Various poverty indicators for individuals under 65 and families with 3 or more children, 2011



Standardised values: Values are divided by the total population value for every indicator. If values are greater than 1, the proportion of people concerned is thus greater than among the total population. In the case of values less than 1, it is smaller.

Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

It is striking that the relative and absolute poverty rates behave differently among both groups, although both concepts are intended to show financial poverty. As shown in the following example, this is above all due to the use of different equivalence scales in the two concepts.

In the relative poverty concept, the income is weighted according to need using the modified OECD equivalence scale. In this process, the oldest person in the household is weighted with factor 1, every other person aged 14 or over with 0.5 and every child under 14 with 0.3. In contrast, absolute poverty is defined by comparing the disposable household income (without equivalence weighting) with an absolute poverty threshold that varies according to household size. In this absolute concept,

the equivalence scale thus results from the poverty threshold. Two scales may be established here: Firstly, the so-called SKOS equivalence scale which is used by SKOS for basic needs and secondly, an empirical scale which is obtained from the total absolute poverty threshold (basic needs, housing costs and amount for other expenditure).¹³ In contrast to the modified OECD equivalence scale, neither of these scales make a distinction by age of household members.

The three scales are shown in T 1.

T 1 Equivalence scales, values for selected household types

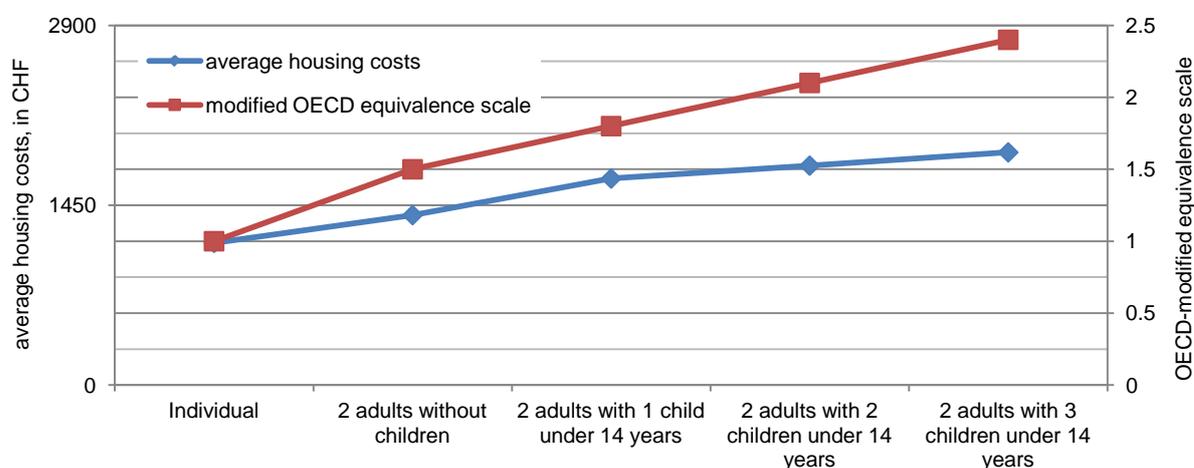
Household types ¹	modified OECD equivalence scale	SKOS equivalence scale (for basic needs, without housing costs)	Equivalence scale derived from absolute poverty threshold (incl. housing costs)
Individual	1.00	1.00	1.00
2 adults without children	1.50	1.53	1.38
2 adults with 1 child	1.80	1.86	1.66
2 adults with 2 children	2.10	2.14	1.86
2 adults with 3 children	2.40	2.42	2.03

¹ In the case of the modified OECD equivalence scale, it is assumed that children are aged under 14. In the case of the other two equivalence scales, however, the age of persons in the household is not relevant.

Sources: Eurostat 2012 / SKOS 2012b / FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

While the modified OECD equivalence scale and the SKOS scale rise almost just as much with increasing household size, the scale is far more level if housing costs are included. This is mainly due to the fact that housing costs do not equally increase with additional persons in the household and are also relatively high even in single person households (cf. G 5). This may be justified with economies of scale but may also be because single persons often have better housing conditions than large families. For example, a single person in Switzerland lives in 3.1 rooms on average, while the number of rooms per person in families with 3 or more children is only 0.9 on average.¹⁴

G 5 Average housing costs and modified OECD equivalence scale for selected household types



Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

The different degrees of increase in each equivalence scale mean that the absolute poverty threshold for a single person household is on average nearer to the relative poverty threshold than for larger households. So, for example, in 2011 the average absolute poverty threshold of CHF 2224 per month for single person households was only around CHF 200 lower than the relative poverty

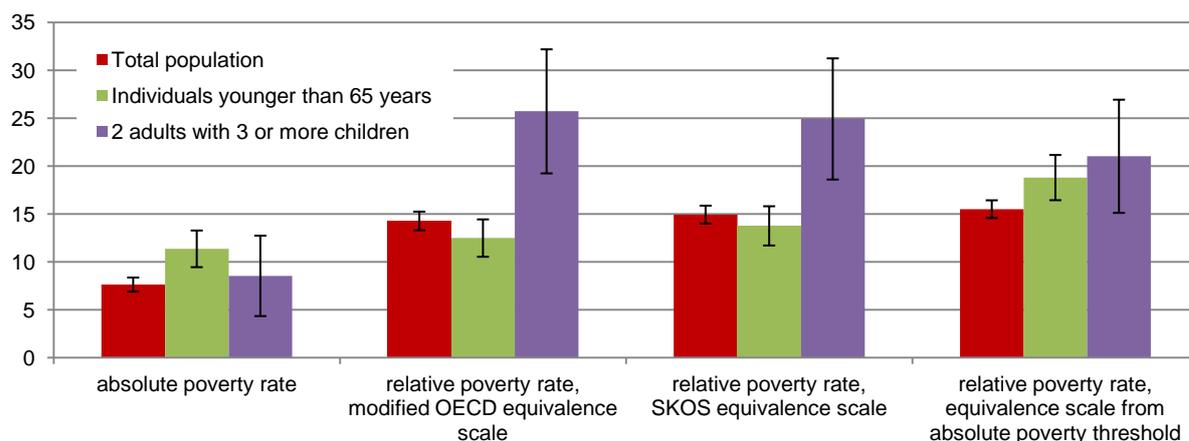
¹³ According to SKOS, the SKOS equivalence scale corresponds to "the results of national consumption statistics" (SKOS 2012a, B2-3).

¹⁴ This, however, also raises the problem of using effective expenditure in poverty thresholds in order to compare sub-groups of the population, while part of the effective expenditure is in fact limited by the level of financial insecurity of the sub-groups of the population observed.

threshold of CHF 2428 per month (difference of around 9%). For households with two adults and three children under 14, the difference between both thresholds in contrast was CHF 1350 per month or around 30% (absolute poverty threshold: average of CHF 4477 per month; relative poverty threshold: CHF 5828 per month).

In order to quantify the influence of the equivalence scale on the poverty rates, alternative relative poverty rates may be simulated using the different scales (cf. G 6). In the first instance, it can be seen that the rates only differ slightly between the modified OECD equivalence scale and the SKOS scale and the same risk groups are identified using both methods. However, as soon as the equivalence scale of the absolute poverty threshold is applied, thus including housing costs, the risk groups match those of absolute poverty. The choice of equivalence scale used to determine the risk groups in poverty statistics is therefore crucial.

G 6 Poverty rates using different equivalence scales, 2011, in %



Source: FSO, Statistics on Income and Living Conditions SILC, version 26.03.2013

4 Conclusion

By using different concepts to describe poverty, the FSO aims to cope with the complexity of the subject and the heterogeneous demands made upon poverty statistics. A multidimensional approach also helps to reduce the problem that the definition of poverty is always to a certain extent normative. Thus, the varying needs of poverty statistics can be fulfilled by ensuring that Switzerland's political information needs are covered and international comparability is guaranteed. The material deprivation indicators ultimately provide a broader view of the poverty statistics by integrating the actual provision situation of the population.

As seen by the analyses above, a broad view of this kind is especially important in poverty statistics. This is particularly evident in some population groups which appear to be risk groups according to one indicator but not according to the next. The limitation to one single indicator may thus result in risk groups being missed and awarded too little attention in political debates.

Furthermore, it has become clear that methodical issues such as the choice of the implicit or explicit underlying equivalence scale and the definition of financial resources (including or excluding assets) may have a crucial effect on the definition of risk groups. Not only the choice of indicator but also its concrete implementation must therefore be carefully justified, recorded and regularly questioned.

In order to depict the situation in Switzerland even more thoroughly, the integration of further indicators in addition to the indicators already used for a subjective assessment of the financial situation is conceivable. This will be the subject of further analyses concerning to what extent a consumption-based poverty indicator may be generated and how existing wealth questions in the SILC survey can be validated and integrated into analyses if necessary.

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