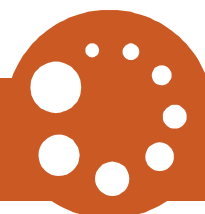




Poverty measurement integrating wealth

Discussion paper on methodological bases

EXPERIMENTAL STATISTICS



Neuchâtel, June 2020

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Foreword

Dear readers,

The key mandate of federal statistics is to deliver high-quality statistical data and information which are required by users in politics, society, the economy, the administration and science for opinion-forming, planning and management tasks.

Our role here is not only to highlight relevant issues but also to further develop the concepts applied and the data situation according to users' needs and both national and international standards. In this way, over the past few years the FSO has continuously increased its information on poverty, because even in an essentially wealthy country such as Switzerland, poverty remains an important social and political topic.

As part of our programme on the multiple use of data, at the FSO we are currently working on improving the data situation on assets. Until now, at a national level there has been a lack of data on the assets of households which meet our quality standards. In addition to improving these data bases, in cooperation with our partners and under consideration of national and international specifications, concepts to analyse these should now be further developed.

Following the "open innovation" approach, in October 2018 we launched a microsite for experimental statistics for such projects. I am pleased that through this methodology paper on poverty measurement including assets, we are able to address another important issue in this context.

The term "experimental statistics" should make it clear that the procedure can still be adapted and that the analyses are based on experimental methods. The results primarily serve to test the chosen approach. In this form they do not fulfil the high quality standards that the Federal Statistical Office usually applies and cannot be used as a basis for planning and management purposes.

This methodology paper is therefore primarily aimed at specialists. As experimental statistics, the aim of the publication is to open up the dialogue with users at an early stage of the project in order to make it possible to take on board their needs and suggestions. We are very interested in receiving your feedback on our experimental statistics so that we can continue to improve these statistics together. I warmly invite you to take part in this exchange.

Neuchâtel, June 2020



Georges-Simon Ulrich

Director General of the Federal Statistical Office

Summary

Background

The Swiss Federal Statistical Office (FSO) has been regularly publishing information on poverty in Switzerland for a number of years. People are defined as poor if “they do not have the financial means to buy goods and services that are necessary for a socially integrated life” (FSO, 2018a, p.2). Conceptually, the FSO’s definition of poverty comprises both income and assets. Because appropriate data and concepts on the integration of assets in poverty measurement were lacking (cf. FSO 2014a), up to now analyses have been limited to income poverty, as is the case in most other countries.

The literature has suggested for some time that income and wealth should be considered together in order to measure poverty (cf. Weisbrod & Hansen, 1968, Stiglitz et al. 2009). This is because both income and wealth determine a household’s financial potential to buy goods and services (potential consumption).¹ On account of its high average wealth and the comparatively high concentration of wealth (Föllmi & Martinez 2017), assets are particularly significant in Switzerland. In the medium term, the FSO’s poverty statistics therefore need to be supplemented with an indicator that is based on the total financial means of households (income and assets).

For a joint view of a household’s income and asset situation, both pieces of data must be available at individual level in a single database. Only then is it possible to determine whether an individual household can offset low income by drawing on existing reserves. Until now, information on assets has not been systematically collected for such analyses in Switzerland. The FSO therefore integrated a pilot module on wealth in 2015 into the Statistics on Income and Living Conditions (SILC), which is also the basis of data for official poverty statistics.² This allows us to conduct initial exploratory data analyses on the integration of assets in poverty measurement. The results calculated and presented here are a possible way of integrating wealth components into poverty statistics. For the time being they are intended for illustrative purposes and as a basis for discussion to evaluate whether the approach is suitable.

Scope of this document

While there is now broad consensus in academic circles that assets should be incorporated in poverty measurement, the way in which the additional poverty statistics are interpreted and communicated poses a certain challenge. Prior to the official launch, we wish to engage in dialogue with users and partners from the field of poverty statistics on the basis of a concrete proposal by the FSO.

This document presents the current status of work within the FSO on poverty measurement that incorporates the currently available asset information. It explains the various possibilities for integrating assets in poverty measurement and demonstrates how they impact the results. Early publication of the methods and initial analyses will allow user requirements to be incorporated into the development and consolidation of the methodology so that it can be amended and developed if necessary. The aim is for the new indicator to be as broad based as possible.

Key findings

By including assets in poverty measurement, a distinction can be drawn between persons with and without financial reserves within the low-income population. This allows the economic potential of these households to be better assessed and supplements the poverty statistics with important additional information. Incorporating assets also significantly improves the coherence of poverty rates with other indicators on the population’s standard of living.

The results are significantly influenced by conceptual and operational decisions, such as the scope and duration of wealth consumption. However, the at-risk groups are similar in all variants and largely coincide with those for income poverty. An important exception are persons aged 65 or over who are often able to supplement a low income with financial reserves.

Feedback

Questions and feedback on this discussion paper are welcome and can be directed to the **information service at the Social Analyses section between now and 31.12.2020.**

email: info.sozan@bfs.admin.ch or phone: +41 58 463 64 21

In your feedback, please explicitly respond to the following points:

1. Do you think integrating assets into poverty measurement is desirable in principle?
2. Do you consider the selected approach and options sensible? Where do you think adjustments are needed?
3. Do you agree with the proposed terminology or do you have alternative suggestions?
4. Are there any other reactions or comprehension questions?

¹ In addition, poverty can be measured based on a household’s consumption expenditure (e.g. Eurostat 2017).

² The data available and the SILC module 2015 are described in more detail in the appendix.

1 Integration of assets into poverty measurement

In order for income and assets to be jointly considered in poverty measurement, we first have to define how assets should be specifically taken into account. In the literature two basic approaches prevail: the unidimensional approach and the two-dimensional approach.

In the **unidimensional approach**, assets and income are aggregated to generate a new, extended income that includes wealth components. This can be achieved, for example, by deducting a certain percentage of assets from income (e.g. Weisbrod & Hansen 1968, Haveman & Wolff 2004, Wanner & Gabadinho 2008, Brandolini et al. 2010), or through the application of asset thresholds³ above which a person is by definition classified as “non poor” (Headey et al. 2009). An adjusted poverty rate can then be calculated on the basis of this extended income.

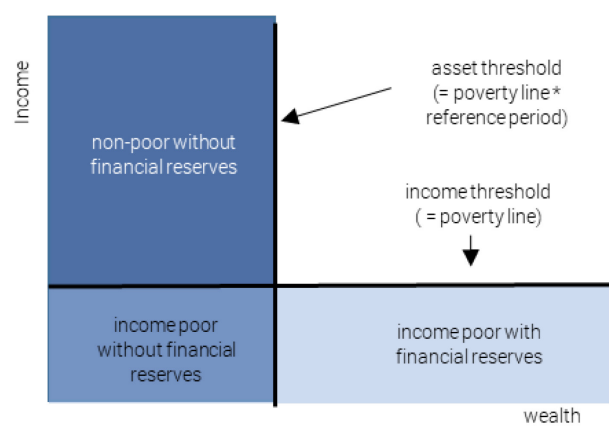
In the **two-dimensional approach**, income and assets are initially considered separately. The income poverty rate remains unchanged. Additionally, the percentage of the population who do not have sufficient assets to sustain themselves during short-term drops in income is determined (Brandolini et al. 2010, UNECE 2017). This method is applied by the OECD (Balestra & Tonkin 2018) and Eurostat (2017), and has evolved to become the international standard in recent years. Usually a household's wealth is compared with the same poverty line that is used to determine income poverty.⁴ This approach (as opposed to a newly-defined threshold for assets) ensures coherence between the income poverty and asset poverty rates and therefore allows an integrated view of income and assets.

Various studies have shown that the choice of basic approach (unidimensional or two-dimensional) has a significant influence on the results (e.g. Kuypers & Marx 2016, Azpitarte 2010, Brandolini et al. 2010, Tonkin et al. 2016, Törmälehto et al. 2013). Ravazzini et al. (2017) also showed for Switzerland that the unidimensional approach leads to higher poverty rates than the two-dimensional approach.

As appropriate asset data are not currently available every year in Switzerland, the two-dimensional approach is better suited to official statistics in Switzerland. With this approach, we could continue to publish the latest figures on income poverty every year and provide supplementary information on assets in years when information on assets is available. The two-dimensional approach also has the advantage that the income and asset situation of households can be viewed in both a combined and differentiated manner, while in the unidimensional approach this information is only available in aggregated form.

With the two-dimensional approach, it is possible to show the percentage of the population that has financial resources in one form or another. So, for example, we can distinguish between income poor who are (still) able to offset their low income by drawing on assets and those who do not have that option (Azpitarte 2012). Furthermore, this approach allows us to identify persons who are not income poor but who do not own sufficient assets to prevent them from ending up in a precarious situation in the event of a loss of income.⁵ This additional dimension of financial uncertainty has received little attention in Switzerland up to now.

G 1 Two-dimensional approach for integrating wealth in poverty measurement



Source: based on Balestra & Tonkin (2018), own terms

Chart G 1 illustrates the two-dimensional approach. People with income below the income threshold (=poverty line) are represented in the bottom section of the chart. As usual, these people are described as income poor.⁶ The vertical division refers to assets: if they are below the asset threshold (=poverty line for a certain reference period), we talk about persons without financial reserves. Finally, the section on the bottom left shows the overlap of income poor people without financial reserves. They constitute the group with the greatest need for social policy action.

➔ **Wealth can be incorporated into poverty measurement in various ways. For Swiss official statistics, the two-dimensional approach is the most suitable. This approach allows us to identify individuals and households that do not have sufficient assets to cover their basic needs for a specific period with no income.**

³ Such asset thresholds can vary widely. In Switzerland, e.g. at LUSTAT (2017, p. 25) all households with assets of over CHF 4,000 per person, or more than CHF 10,000 per household [...] are not considered poor, regardless of their income. Meanwhile, in the Bern social report (Bern Cantonal Council 2015), all households with wealth of CHF 120,000 (CHF 150,000 for married couples) – along with asset consumption of 5% – are considered non-poor.

⁴ This is likely to result in a rather conservative estimate as the ongoing expenditure of many households is above the poverty threshold (Tonkin et al. 2016).

⁵ This approach does not take into account the fact that Switzerland offers an array of social security benefits. People who know that they can initially draw unemployment benefits (ALV) if they are unemployed or daily sickness benefits if they are sick are less dependent on building up financial reserves for such cases than people who are not eligible for such benefits.

⁶ For terminology, cf. Chapter 4 and the glossary.

2 Putting the two-dimensional approach into operation

To operationalise the two-dimensional approach, the following questions first need to be clarified:

1. Which **types of assets** are to be taken into account?
2. What **poverty line** will be used?
3. For which **reference period** do the assets need to suffice?
4. How will assets be **adjusted for equivalence**?

These choices can influence the results and are therefore justified and documented here.⁷

2.1 Types of assets

Private households can build up wealth in a variety of ways. These include savings, inheritances and endowments as well as returns on investment on securities or real estate etc. In Switzerland, saving is important to guarantee basic subsistence in old age (voluntary and tied retirement provision). Assets can allow households to spread their expenditure over time. They can also generate their own income (returns on investment) and be used as security for loans, further increasing a household's financial leeway (Tonkin et al. 2016, UNECE 2017). Furthermore, wealth can fulfil intangible functions, such as securing status or power (Skopek et al. 2012).

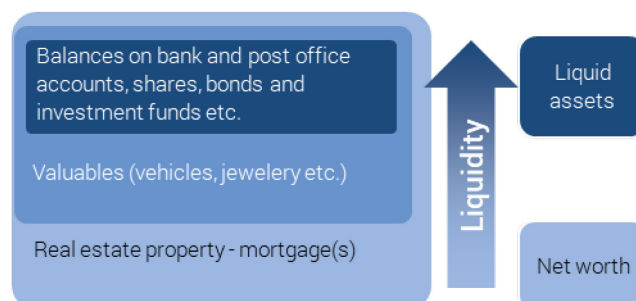
In terms of measuring poverty, we are mainly interested in how assets can supplement or replace a non-existent or low income. For example, assets can be used to tide over short-term periods of financial difficulty, e.g. if someone becomes unemployed or sick, or they can be used in the longer term to top up an insufficient pension. To this end, returns generated by the assets can be used (interest, dividends, rental income etc.), or the wealth can be spent directly.

Whether and to what extent this is possible essentially depends on the form in which the assets are held. Common ways of distinguishing between asset types include financial vs non-financial assets, tangible vs non-tangible assets and liquid assets (e.g. bank or post office account balances) that can quickly be converted into income vs non-liquid assets – i.e. those that are either not available or only available in the long term – (e.g. real estate, retirement assets). Chart G 2 shows how assets can be differentiated by liquidity.

In the context of poverty measurement, net worth is often used as a starting point in the literature. This is calculated by adding together all wealth components and deducting liabilities (debts, e.g. mortgages). Owner-occupied residential property is sometimes excluded, or only liquid assets are included in the poverty measurement. Several of these approaches are often applied in parallel in the literature (e.g. Balestra & Tonkin 2018, Caner & Wolff

2004, Tonkin et al. 2016). It is therefore hardly surprising that the results vary depending on the wealth concept chosen: the more comprehensive the wealth concept, the lower the poverty rates.

G 2 Asset types, by liquidity



Source: author's own diagram (only includes wealth components included in SILC 2015)

There are various reasons for only recognising liquid funds as assets. They are the only asset type that can fully serve as an income substitute as they can be converted into income quickly and without significant loss in value. Liquid assets are therefore suited to bridging loss of income. Both the UNECE (2017) and the OECD (Balestra & Tonkin 2018) cite liquid assets as the primary benchmark for measuring poverty. Limiting the definition to "disposable or readily convertible funds" is also in line with the guidelines of the Swiss Conference for Social Welfare (SKOS), which serve as a basis for calculating the statistical poverty line (cf. SKOS 2016, p. E.2–1).

Meanwhile, non-liquid assets, such as retirement assets, are not available for consumption and could therefore only be incorporated into poverty measurement as hypothetical variables. Real estate assets are also considered non-liquid as they cannot usually be sold quickly without significant loss in value. Besides the monetary value of the real estate, owner-occupied property offers living space that would have to be financed otherwise (e.g. by renting). If real estate assets are integrated into poverty measurement, they should consistently be abandoned in the event of poverty. Instead of owning property, rental costs would then be incurred, thereby changing the cost structure (and thus also the poverty line) of the persons concerned. In the absolute poverty concept, the differences in housing costs are factored into the poverty line and in the relative poverty concept they are factored into the imputed rent. Non-owner occupied property usually generates rental income, which is considered in the calculation of household income.

➔ **Liquid funds are the most relevant asset type for measuring poverty. In order for assets to be used as an income substitute, they must be readily convertible into cash.**

⁷ Detailed empirical sensitivity analyses on some of these factors can be found in Guggisberg & Häni (2018) and Ravazzini & Suter (2018). A short summary follows in Chapter 3.

T 1 Poverty lines of selected household types

in CHF per month

Household type	At-risk-of-poverty threshold (relative concept)	Poverty line ¹ (absolute concept)	Asset threshold for 3 months (absolute concept)	Asset allowance according to SKOS guidelines
Individual	2 506	2 240	6 720	4 000
Single parent, 2 children aged under 14	4 010	(3 589)	(10 758)	8 000
2 adults	3 759	3 052	9 156	8 000
2 adults, 2 children aged under 14	5 263	3 980	11 940	10 000

¹ National averages; individual poverty lines are used to calculate the poverty rate. This amount covers basic needs, housing costs and other expenses such as insurance premiums etc. The at-risk-of-poverty threshold for an individual corresponds to 60% of the median disposable income (according to modified OECD scale) including imputed rent. The at-risk-of-poverty thresholds for the other household types are calculated by multiplying the figure for an individual by the relevant factors from the same scale: by a factor of 1.5 for two adults, by 1.8 for one adult with two children and by 2.1 for two adults and two children.

(x) Values in brackets based on low case numbers and should therefore be interpreted with caution.

Source: FSO – SILC 2015, SKOS 2016

2.2 Poverty line

The FSO publishes poverty rates based on various poverty concepts as standard. On the one hand, it calculates an absolute poverty line that is based on the social subsistence level which is used as a basis for assessing eligibility for social assistance benefits in Switzerland. This poverty line is graduated by size of household. It consists of an amount fixed by the Swiss Conference Welfare Organisations (SKOS) to cover basic needs (food, hygiene, and mobility etc.), individual living costs that are surveyed in SILC (rent or interest on mortgage including utility costs), and CHF 100 per person in the household aged 16 or over for other expenses, such as insurance. As in other SILC countries, a relative poverty line at 60% of median equivalised disposable income is also used. Due to the high level of income in Switzerland, this is several hundred francs above the absolute poverty line. Because the relative poverty concept does not depend directly on needs but on the level of prosperity in the country in question, the relative poverty line is also known as the at-risk-of-poverty threshold. The absolute poverty rate is relevant for domestic social policy measures as it focuses on needs, while the relative poverty rate corresponds to the applicable international definitions and is thus appropriate for international comparisons.

The two-dimensional approach uses the same poverty lines to determine asset thresholds as used for income poverty. The average poverty lines and at-risk-of-poverty thresholds for selected household types are shown in the first two columns of the table T 1: for small households the two figures are close together, but the discrepancy widens as the size of household increases. The table also shows that in the absolute poverty concept the asset threshold for a reference period of three months is in the same ballpark as the asset allowances granted to social welfare claimants under the SKOS guidelines. Liquid asset holdings that exceed the allowances have to be used up first before social assistance can be claimed (SKOS 2016).

→ The same poverty lines are used to determine asset thresholds as are used for income poverty (absolute and relative).

2.3 Reference period

The asset threshold also depends on the time span for which the assets need to suffice (reference period). If the assets only need to suffice for one month, it equates to the poverty line for one month. For a period of three months, the poverty line is multiplied by a factor of three, for six months by a factor of six etc. The proportion of people without sufficient reserves naturally increases as the reference period becomes longer.

In the literature, a reference period of three to six months has been established as the most common time span (cf. UNECE 2017, Balestra & Tonkin 2018). However, since this seems relatively arbitrary, analyses for other reference periods are also frequently presented, with ranges from one to twelve months (e.g. Eurostat 2017, Kuypers & Marx 2016).

Changing the reference period also changes the significance of the indicator: with a reference period of one month, only households with very limited resources are included (in Switzerland around CHF 2,500 a month for an individual), whereas for a period of twelve months, fairly substantial asset balances would be required (around CHF 30,000 for an individual), in order not to fall below the poverty line. For these reasons, it seems appropriate to present the indicator for reference periods of one, three, six and twelve months.

→ The reference period selected influences the level of the asset threshold. As this cannot be defined objectively, various reference periods are used.

2.4 Equivalence adjustment

If several people live together in one household, they usually spend less per capita to achieve the same standard of living as a single-person household. For example, housing costs and other fixed costs (e.g. internet access or mobility costs) can be shared. It is therefore common in income analyses when comparing households of different sizes to carry out an equivalence adjustment of income and to convert the household income into equivalised income on the basis of an equivalence scale.

There is no consensus in the literature as to whether an equivalence adjustment should be carried out for assets. However, in the context of poverty measurement – at least in the two-dimensional approach – assets are considered as a pure income substitute and are thus interchangeable with income. For such analyses, the OECD recommends adjusting assets using the same equivalence scale as is used for income (OECD 2013, p.178).

In the relative poverty concept, the disposable household income for each person is converted into an equivalised income on the basis of the modified OECD scale and then compared with the at-risk-of-poverty threshold for an individual. Similarly, asset holdings are converted using the factors from the modified OECD scale before they are compared with the at-risk-of-poverty threshold. In the absolute poverty concept, however, disposable household income is used without an equivalence adjustment as the poverty line is already graduated by household size. Consequently, there is no equivalence adjustment of assets in the absolute poverty concept.

➔ **Equivalence adjustment allows us to compare the economic situations of households of different sizes. It is performed in the same way as for income poverty.**

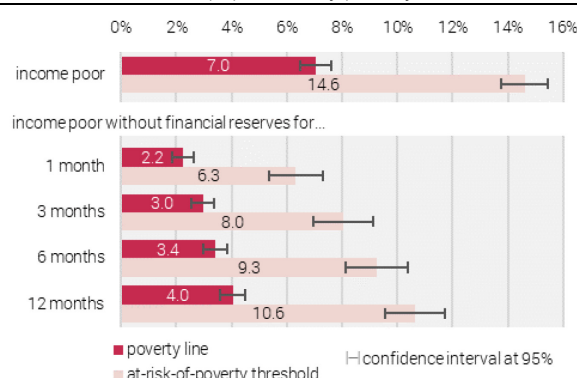
3 Sensitivity analyses

In order to show the influence of conceptual and operational decisions on the results, the following section presents some initial exploratory analyses. These are based on a pilot module on wealth that was conducted within the scope of SILC 2015, and are provided for illustrative purposes for the time being. As our main goal is to supplement the poverty rates with further information, we are focussing on individuals who are both income poor and who do not have any financial reserves.

Chart G 3 shows the proportions of income poor individuals without financial reserves for various time periods and for both poverty lines (poverty line and at-risk-of-poverty threshold). This shows that both the choice of poverty line and the choice of reference period significantly impact the results.

G 3 Income poverty and lack of financial reserves for one, three, six and twelve months

in % of the Swiss resident population, by poverty line



Financial reserves are defined here as liquid assets (balances on bank and post office accounts, shares and bonds etc.). Debts are not taken into account.

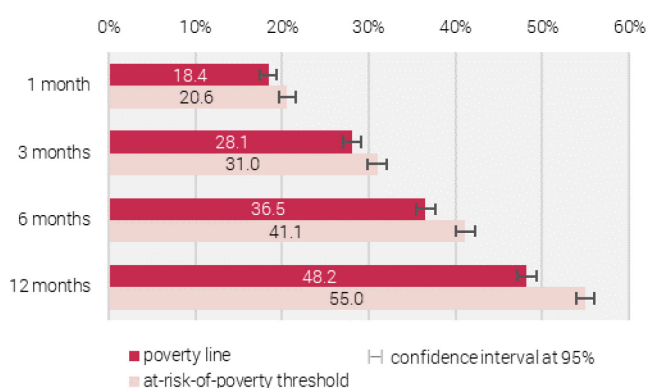
The poverty line is derived from the guidelines of the Swiss Conference of Welfare Organisations (SKOS), which defines the social subsistence minimum in Switzerland. The at-risk-of-poverty threshold equates to 60% of the median equivalised income (according to modified OECD scale) including imputed rent.

Source: FSO – SILC 2015 (pilot module on wealth, version dated 07.06.2018)

When the at-risk-of-poverty threshold is used, all the proportions are considerably higher, irrespective of whether assets are incorporated. However, these differences can primarily be attributed to income and not to assets (cf. Guggisberg & Häni 2018). This is also confirmed by the chart G 4, which shows the proportion of people without financial reserves regardless of income. The differences between the two poverty lines are only small here.

G 4 Proportion of persons without financial reserves for one, three, six and twelve months

in % of the Swiss resident population, by poverty line



Financial reserves are defined here as liquid assets (balances on bank and post office accounts, shares and bonds etc.). Debts are not taken into account.

Source: FSO – SILC 2015 (pilot module on wealth, dated version 07.06.2018)

Chart G 4 also shows that the proportion of people without financial reserves is much higher for all reference periods than the proportion of income poor people. The majority of these people achieve an income that can cover their needs, however. So for the purpose of these statistics they are considered non-poor. Income and assets are not necessarily concentrated in the same households in Switzerland but can be considered as complementary.⁸ This is a calculation based on gross amounts, however, as debts (excluding mortgage debts, cf. Appendix A2) were not included in the 2015 SILC survey. It should be assumed that for some of these people, the actual disposable financial reserves are lower than those shown here.

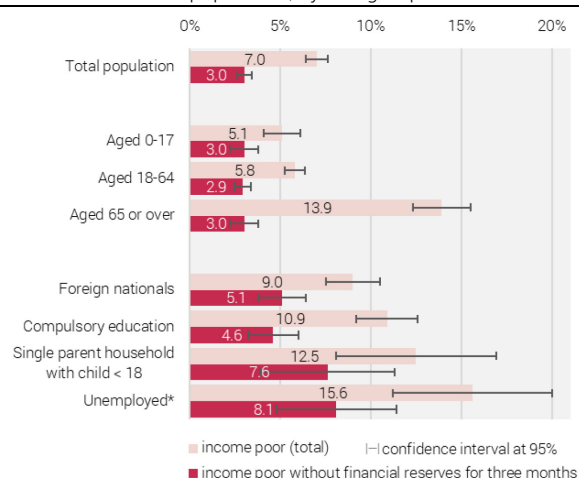
An analysis based on sociodemographic characteristics reveals whether there are differences between the different population groups. A reference period of three months was selected for this purpose. This is both the established international standard and relevant for Switzerland as the asset allocation stipulated by the SKOS approximately corresponds to three times the poverty line (cf. Chapter 2.2). The analyses confirm that people aged 65 and over are by far the most likely to be able to meet their needs by drawing on their assets over a longer period: some three quarters can manage for a year or more without income and still have liquid assets. Even among income poor older people, financial reserves play a major role in covering daily needs (cf. chart G 5): while 13.9% of all people of retirement age are considered income poor, only 3.0% of this age group are poor without sufficient reserves to cover at least three months. A portion of the reserves of older people are likely to be capital payments from the 2nd or 3rd pillar, which are used gradually to cover daily needs.

Groups with high proportions of income poor people without financial reserves are foreign nationals, those with minor children (particularly in single parent households), persons with no post-compulsory education and unemployed people. Apart from people aged 65 and over, this largely corresponds to the groups at risk of income poverty.

- ➔ **Incorporating assets leads to a significant decline in poverty rates in all variants. People aged 65 and over in particular can often offset a low income with financial reserves.**
- ➔ **The at-risk groups are otherwise similar to those for income poverty.**

G 5 Income poor persons with and without financial reserves for three months

in % of the Swiss resident population, by sub-group



* These values are based on low case numbers and should therefore be interpreted with caution.

Interpretation aid: 13.9% of persons aged 65 or over are income poor and 3.0% of this age group also have no financial reserves to cover their basic needs for three months.

Financial reserves are defined here as liquid assets (balances on bank and post-office accounts, shares and bonds etc.). Debts are not taken into account. The asset threshold here corresponds to three times the absolute poverty line, which is derived from the SKOS guidelines.

Source: FSO – SILC 2015 (pilot module on wealth, version dated 07.06.2018)

⁸ This is true at least in cross section (viewed at a single point in time). It should be assumed that households with a high income are more likely to be able to

build up reserves than those who only have a low income. Differences in income at working age are thus likely to contribute to different asset balances later in life.

4 Terminology

The designation of the new wealth indicator presents various challenges. The FSO already publishes a number of poverty indicators (poverty rate, at-risk-of-poverty rate, material deprivation rate, poverty rate before social transfers, and information on dynamics of poverty). Introducing an additional poverty rate that integrates wealth adds to this complexity. There is also a risk that introducing an asset-based poverty rate may jeopardise the legitimacy of the income poverty rate. Because the FSO does not currently have the necessary data every year to incorporate assets into poverty measurement, income poverty will remain the most important poverty indicator in Switzerland for the time being.

To avoid confusion with the existing poverty indicators, it is planned to refrain from using the term “poverty” in connection with wealth. A literal translation of the internationally used “asset-based poverty rate” as “vermögensbasierte Armutsquote” also carries a certain risk of misinterpretation. In contrast to the rather neutral term “assets”, the translated terms “Vermögen”, “fortune” and “patrimonio” are less likely to be associated with small amounts and may imply possession of significant wealth (as is the case with the English term “fortune”⁹). In order not to be regarded as “asset poor”, however, relatively modest amounts

suffice, which would be used up in a few months without income. To avoid misunderstandings, the name of the indicator should be as descriptive as possible and convey exactly what is being measured. The designation must also work in all of Switzerland’s official languages. The FSO proposes paraphrasing “asset-based poverty rate” as “proportion of persons without financial reserves” or (more precisely) “proportion of persons without sufficient financial reserves for x months”.

Accordingly, monetary poverty as an umbrella term comprises the two sub-areas of “income poverty” and “lack of financial reserves”. This will not result in any changes to the existing and established indicators on income poverty as it has been clearly indicated for many years in publications that the results concern income poverty (excluding wealth).

Table T 2 provides an overview of possible designations for the new indicator and the overlap between income poverty indicators and asset-based poverty indicators in the various languages.

- ➔ **Monetary poverty comprises the two sub-areas “income poverty” and “lack of financial reserves”.**
- ➔ **The “asset-based poverty rate” is paraphrased as “proportion of persons without financial reserves for x months”.**
- ➔ **The term “financial reserves” makes it clear that the asset threshold often only comprises small amounts.**

T 2 Potential designations for the new indicators

Common term in the literature	Deutsch	Français	Italiano	English
Income poverty	Einkommensarmut	Pauvreté en termes de revenu	Povertà reddituale	Income poverty
Asset-based poverty rate	Anteil Personen ohne finanzielle Reserven	Part des personnes ne disposant pas de réserves financières	Parte delle persone senza riserve finanziarie	Proportion of population without financial reserves
Twice poor / asset and income poor	Einkommensarme Personen ohne finanzielle Reserven	Personnes pauvres ne disposant pas de réserves financières	Persone povere senza riserve finanziarie	Income poor without financial reserves
Protected poor / income poor only	Einkommensarme Personen mit finanziellen Reserven	Personnes pauvres disposant de réserves financières	Persone povere con riserve finanziarie	Income poor with financial reserves
Vulnerable non-poor / economically vulnerable	Nicht-arme Personen ohne finanzielle Reserven	Personnes non-pauvres ne disposant pas de réserves financières	Persone non povere senza riserve finanziarie	Non-poor without financial reserves

Note: whereas the precise terms “income poor” and “einkommensarm” are common in English and German, a direct translation would sound very awkward in French and Italian. It therefore makes sense to include explanatory footnotes in charts and tables and to paraphrase the terms in running text.

Sources: Azpitarte (2012), Balestra & Tonkin (2018), own proposed terms

5 Coherence with other standard of living indicators

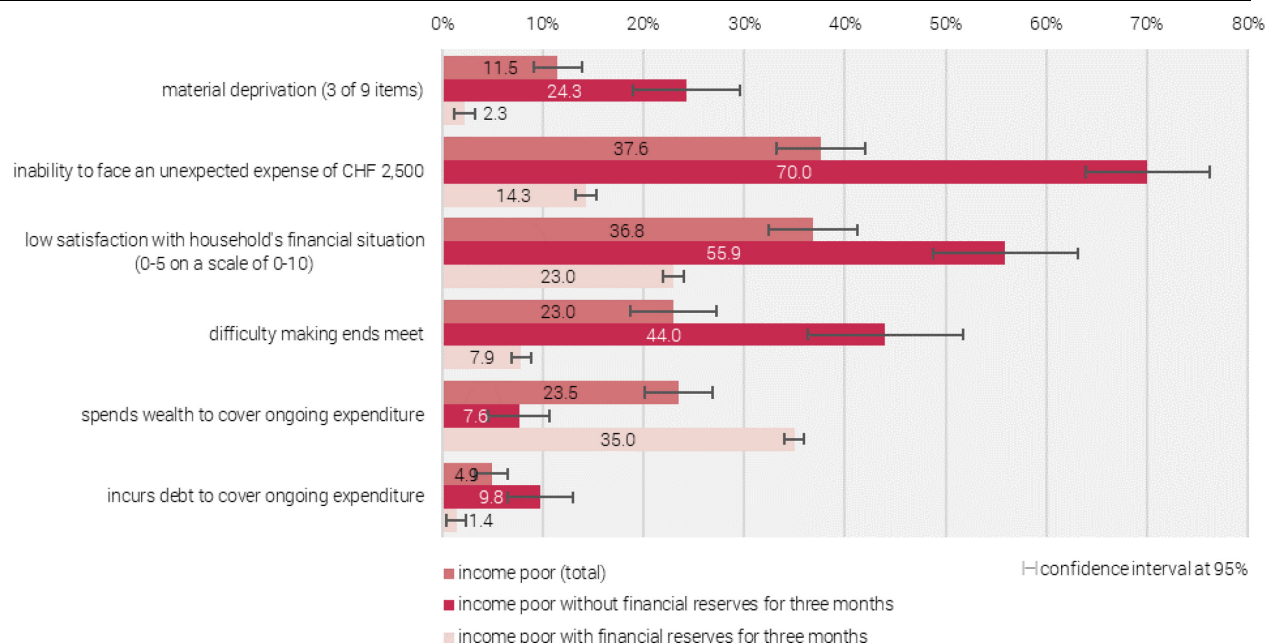
Besides information on financial means, SILC also includes questions on possession of material goods and a subjective evaluation of the financial situation of households which can be used to validate the monetary indicators.

The living standard of households does not depend only on income. The coherence between income poverty and other indicators on the standard of living is relatively low for some groups, i.e. those affected by poverty are not automatically materially deprived, and do not automatically have subjective difficulties. This is probably due – at least in part – to the fact that asset holdings are not taken into account as low incomes can be supplemented by the use of financial reserves. Coherence can be significantly improved by including assets in the calculation.

⁹ It should therefore be avoided and the terms “assets” or “wealth” should be used instead.

G 6 Income poor persons with material or subjective difficulties

in % of the Swiss resident population, according to whether or not they have financial reserves for three months



The asset threshold here corresponds to three times the absolute poverty line, which is derived from the SKOS guidelines. Financial reserves are defined as liquid assets (balances on bank and post office accounts, shares and bonds etc.). Debts are not taken into account.

Source: FSO – SILC 2015 (pilot module on wealth, version dated 07.06.2018)

Chart G 6 illustrates this on the basis of the pilot module on wealth in SILC 2015. According to these data, 11.5% of income poor people were affected by material deprivation in 2015. However, almost a quarter (24.3%) of income poor persons without financial reserves for three months were materially deprived, but only 2.3% of income poor persons with financial reserves. In addition, 70% of income poor persons without reserves were not able to face an unexpected expense of CHF 2,500, compared with 14.3% of those with financial reserves. The possession of financial reserves is therefore a deciding factor in the material situation of income poor households.

Subjective indicators on living standards in SILC highlight the way in which people assess the financial situation of their own household. They also provide information on the household's social standing and lifestyle. Income poor persons without financial reserves are much more frequently dissatisfied with the financial situation of their household than those with reserves (55.9% vs 23.0%), are more likely to experience difficulties in making ends meet (44.0% vs 7.9%) and are more likely to get into debt to cover their ongoing expenses (9.8% vs 1.4%). By contrast, income poor persons with financial reserves are more likely to draw on their assets to cover ongoing expenses (35.0%) than income poor people without financial reserves to cover three months (only 7.6%).

The material living standard of the income poor population and the way in which they assess their own financial situation is closely linked to whether or not they have financial reserves to fall back on. Financial reserves are therefore an important factor in the living standard of people on low incomes.

The ability to draw on financial reserves also explains why the older population tend to rate their financial situation positively despite high income poverty rates.

- ➔ The availability or lack of financial reserves divides the income poor population into two groups with standards of living that are clearly different.
- ➔ Integrating assets will significantly increase the coherence of poverty indicators with other indicators on the standard of living.

6 Conclusions

This paper discusses various possible ways of incorporating assets into poverty measurement. It demonstrates that both in the choice of approach and in the way in which it is implemented, decisions have to be made that can affect the results. This is illustrated using sensitivity analyses on the basis of the pilot module on wealth in SILC 2015.

The sensitivity analyses clearly show that in any event incorporating assets allows the financial means of households to be better assessed and therefore enriches poverty measurement in Switzerland with valuable information as income and assets are not necessarily concentrated in the same households in Switzerland. The information on assets also significantly improves the coherence of poverty rates with other indicators on the standard

of living. The contradiction between the high income poverty rates among the older population and the positive subjective assessment of their situation (FSO 2014b, Caner & Wolff 2004) can be largely explained by the fact that this age group is particularly likely to have financial resources in the form of assets.

The analyses also show, however, that various decisions concerning the integration of wealth lead to quite considerable variations in results. For example, the proportion of income poor people without financial reserves varies depending on the poverty line and reference period for which the reserves need to suffice. The at-risk groups are similar in all variants, however. Particularly at risk are the unemployed, foreign nationals and those under 65 who live alone or in single-parent households with minor children. For persons aged over 65, however, the poverty rates that incorporate wealth are no longer above those of other age groups, so they are no longer considered an at-risk group.

The theoretical explanations and the empirical findings suggest that the analyses on financial reserves in Switzerland should be disclosed in parallel for both poverty lines – in a similar way to income poverty. The poverty rate (absolute poverty concept) is relevant for domestic social policy measures as it focuses on needs, while the at-risk-of-poverty rate (relative concept) corresponds to the applicable international definitions and is thus appropriate for international comparisons. The reference period used to define the asset threshold affects the level of disposable reserves. As this factor cannot be defined objectively, a range should be presented to ensure transparency. This also provides an indication of the level of the financial reserves and the time span for which they would suffice.

While there is now broad consensus in academic circles that assets should be integrated in poverty measurement, communicating and interpreting these new statistics presents a certain challenge. Engaging in dialogue with stakeholders before the results are officially launched and choosing a transparent designation for the new indicator should maximise its acceptance and ensure it is used correctly.

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Glossary

Ability to make ends meet

Question in SILC: "When you add up all your household income, how easily are you able to make ends meet at the end of the month, i.e. how well can you cover your necessary monthly expenditure?"

1 – With great difficulty, 2 – With difficulty, 3 – With some difficulty, 4 – Fairly easily, 5 – Easily, 6 – Very easily?"

The values 1 and 2 are classified as "difficulty making ends meet".

Confidence interval/accuracy of estimates

All estimates calculated on the basis of a sample entail some degree of uncertainty as only a portion of the population (sample) is used to estimate a characteristic of the total population. This margin of error can be quantified by calculating a 95% confidence interval that is narrower the more precise the results are. The confidence interval denotes a very high likelihood (95%) that the true value of a population parameter lies within the confidence interval.

Disposable household income

Disposable household income is calculated by deducting compulsory expenditure from gross income. Compulsory expenditure comprises social insurance contributions, taxes, health insurance premiums and regular transfer payments to other households, such as child maintenance.

Equivalised disposable income

Equivalised disposable income is calculated on the basis of disposable household income, taking into account the size and composition of the household. The oldest adult is attributed a weight of 1.0, each additional person aged 14 or over is attributed a weight of 0.5, and each child under 14 a weight of 0.3 (modified OECD scale). This takes account of the economies of scale that result from living in a household with several people.

Estimated income and expenditure

Question in SILC: "Think about all the income and expenditure of your entire household over the course of a year. Would you say that your household..."

1 – puts money aside, 2 – spends what comes in, 3 – draws on wealth or reserves or 4 – gets into debt?"

Gross household income

Gross household income is made up of the entire income of all the members of a private household (earnings from employment and self-employment, pensions and social transfers, investment income, etc.). The income data collected in SILC 2015 refer to 2014.

Imputed rent

In order to take into consideration the financial advantage of owning one's own home or of benefiting from rent that is lower than the market rate, an "imputed rent" is added to the income of the households concerned. This corresponds to the rental value of the property after deduction of actual housing costs. As the absolute poverty concept factors housing costs into the poverty line, it uses income excluding imputed rent.

Material deprivation

The material deprivation rate is defined as the inability to afford items in at least three of nine categories that are coordinated at European level.

Financial difficulties:

- inability to face an unexpected expense of CHF 2,500 in the space of a month
- inability to afford one week of annual holiday away from home
- arrears on payments
- inability to afford a meal with meat, fish or vegetarian equivalent every second day
- inability to keep home adequately warm

Deprivation of consumer durables:

- no access to a washing machine
- does not own a colour television
- does not own a telephone
- does not own a car

Median

The median is calculated by dividing observed values ranked by size into two halves of equal size. Half of the values are above the median and the other half below it.

Persons without financial reserves

Persons without financial reserves are those (irrespective of their income situation) whose household does not have sufficient assets to cover its basic needs for a certain period of time in the event of a loss of income. In concrete terms, these are persons whose gross liquid household assets (balances on bank and post office accounts and total value of shares, bonds and investment funds) are insufficient to prevent them from falling below their poverty line for a period of 1, 3, 6 or 12 months. For this purpose, the monthly poverty line is multiplied by the corresponding number of months.

Poverty (income poverty)

On the basis of the applicable concepts, we talk about poverty if a person lives in a household whose disposable income is below the poverty line. Asset holdings are not included in this calculation.

Satisfaction with financial situation of household

Question in SILC: "How satisfied are you in general with the current financial situation of your household if 0 means 'not at all satisfied' and 10 means 'completely satisfied'?"

Values from 0–5 are classified as "low satisfaction".

Appendix

A1 Data available on assets

As mentioned in the introduction, micro-level information on assets has been scarce in Switzerland up to now. While the Federal Tax Administration (FTA) publishes regular analyses on the wealth of households (e.g. FTA 2018), these data are only available in aggregated form and do not allow any conclusions to be drawn on individuals and their sociodemographic characteristics.

Various cantonal poverty reports are able to draw on detailed tax data and therefore contain information on assets, which in some cases can be included in calculation of the poverty rate (cf. e.g. LUSTAT 2017, Bern Cantonal Council 2015). Wanner & Gabadinho (2008) harmonised and analysed such tax data from five cantons. Currently there are no harmonised tax data available with the requisite level of detail at national level. Data will be available from eleven cantons for initial trials from 2020.

At the moment various surveys are available that contain micro data on assets. The Survey of Health, Ageing and Retirement in Europe (SHARE) only covers the population aged 50 and over, however. Meanwhile, wealth information from the Swiss Household Panel (SHP) cannot be broken down into sufficiently detailed wealth components (Ravazzini et al. 2019). The only micro data for the total population in private households that currently have the requisite level of detail for poverty analyses in Switzerland are from a pilot module in the survey for the Statistics on Income and Living Conditions (SILC), which was conducted in 2015 for the second time.

A2 The SILC module on wealth 2015

SILC is a survey that is coordinated throughout Europe and is conducted annually in over 30 countries. The survey looks at income distribution, poverty, social exclusion and living conditions. Thematic in-depth modules allow data to be collected on additional areas not included in the annual questionnaire. In the 2015 module, data were collected on several types of assets and one type of debt:

- Balances on bank or post office accounts (excluding 3rd pillar)
- Total value of all shares, bonds and investment funds
- Total value of all valuables, such as jewellery, vehicles, artworks or collections (excluding real estate)
- Value of all real estate, land and land rights
- Total amount of all mortgages
- Third pillar assets with insurance companies, bank or post office

In 2015, just over 17,000 people in some 7,500 households were surveyed in Switzerland. Apart from the question relating to the third pillar, the questions were asked at household level and refer to the time of the interview or the end of the previous calendar year.

With regard to measuring poverty, the SILC module on wealth offers the major advantage of allowing detailed data on assets to be collected in the same database that is used to calculate income poverty. However, in order not to overburden the surveyed households, the number of questions on wealth must be kept to a minimum. The SILC wealth data does not therefore offer the same level of detail as the data on assets in the Household Finance and Consumption Survey (HFCS) conducted by the European Central Bank. The main limitations are the fact that it is impossible to distinguish owner-occupied residential property¹⁰ and the fact that data on debts are not collected (except for mortgage debt).

The data quality of the first SILC module on wealth in Switzerland in 2011 was evaluated in depth by the consultancy and research bureau Ecoplan (FSO 2014a). It compared the data with macro data on wealth published by the Swiss National Bank (SNB) and established that assets were underestimated in SILC. This is often the case with micro data on assets (ECB 2016) and is probably due in part to the fact that extreme values are barely recorded at the upper end of the asset scale. This is because as very wealthy households are rare, they are seldom included in random samples (non-observation). Failure to include these values leads to both the total value and the scale of inequalities in household wealth being underestimated. In addition, it can be assumed that estimated real estate values tend to be conservative and in wealthy households in particular, some wealth components are forgotten (under-reporting) or respondents refuse to provide the information (non-response; Ferschli et al. 2018, Vermeulen 2014).

On account of such reservations regarding data quality, asset data have only been analysed with a great deal of caution by the FSO up to now and wealth distribution analyses have not been published. The analyses in the study “Poverty among older people” (FSO 2014b) is currently the only officially published information on household wealth that is based on SILC data.¹¹

Coherence with the macro values seems to be much better in the 2015 module (Ravazzini et al. 2019). The data plausibility tests were improved using newly introduced rules and the model for imputing missing values was refined.¹² The quality of imputation is currently being evaluated. Until a satisfactory level of data quality can be guaranteed, the SILC modules on wealth will be classified as pilot surveys. The analyses in this document are therefore intended for illustrative purposes only.

¹⁰ This distinction will be possible from the SILC module 2018 onwards.

¹¹ The study aimed to achieve an integrated view of the income, consumption and wealth situation of the older population on the basis of the SILC module 2011. However, assets were not directly included in the calculation of the poverty rate.

The analyses were updated in 2018 with data from the SILC pilot module 2015 (FSO 2018b).

¹² Depending on the wealth variable, this concerns between 10% and 19% of values.