



**Social Transfers in Kind and Economic Well-being:
Relevance, Implications and Possible Solutions**

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*The views expressed in this paper are those of the author and do not necessarily reflect the views of the Federal Statistical Office of Germany.

**Kevin Furlong of the Bureau of Economic Analysis provided detailed background on the US social protection system in addition to useful comments and suggestions for this paper. His email address is: kevin.furlong@bea.gov

Abstract

The inclusion of Social Transfers in Kind (STIK) in income distribution analysis has been a major issue within the international research community regarding household's economic well-being. STIK is mainly conceived as part of an extended definition of income. The analytical interest is how the distribution of income, and thus income inequality, changes by taking into account STIK. As information on transfers in kind by government are available on the macro data level in National Accounts or in social protection statistics, the main focus of current mainstream approaches is often to find appropriate imputation procedures to distribute STIK at the level of individual households. The issue is whether poverty ratios or gini coefficients calculated on the basis of an extended income concept are meaningful.

The paper starts by addressing the purpose of the exercise: When measuring economic well-being of an individual household, the issue is who is better off and who is not. The paper argues that the inclusion of STIK in a distributional perspective seems not always useful. Consumption of publicly financed health care or education is actually not leaving people economically better off. These consumption expenditures mainly correspond to higher needs and do not necessarily enhance economic conditions of the respective households. The approach of more refined needs-adjusted equivalence scales seems a promising way to handle this problem. In a perspective of economic well-being the paper is investigating in a conceptual sense in what respect the extended income approach including STIK is possibly enriching distributional analysis or leading to more confusion.

An important rationale behind taking into account STIK in income assessment is international comparability of welfare regimes. In a perspective of national accounts aggregates, national per capita values of adjusted disposable income are contrasted to eliminate distortions that result from different levels of taxes, social contributions and social benefits. This extended income concept includes all types of public expenditures classified as transfers in kind.

A different perspective is income distribution at the national level. The paper argues that for this purpose it might seem preferable not to include a uniform set of public expenditure types for all countries. It could instead make sense to select nationally different expenditure types by checking if this transfer constitutes an economic advantage for a household in comparison to others. For further investigation of the appropriate expenditure types to be included, the paper carries out an institutional analysis of social protection regimes in Germany and the United States¹.

¹ Major contributions concerning the description of the United States social protection system and proposals for the treatment of STIK in distributional analysis for the US case were made by Kevin Furlong from the U.S. Bureau of Economic Analysis.

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Introduction

A key message of the Stiglitz-Sen-Fitoussi-report is to shift emphasis from measuring economic production to measuring people’s well-being². To achieve this, developing distributional metrics of income and consumption is currently object of research by the international community including Eurostat and the OECD Expert Group on measuring disparities in a national accounts framework (EGDNA)³. One of the essential and most sophisticated aspects discussed in the EGDNA has been the issue of the appropriate income concept for distributional analysis. A core problem persisting is the question if Social Transfers in Kind (STiK) should be included in the income concept. Until now, extended income concepts like those defined according to national accounts concepts have not been implemented in current distributional analysis but only in experimental studies. Furthermore, interpretation seems not equally straightforward as in case of cash income.

With respect to measurement of disparities in economic well-being and living conditions, STiK is an important part of a complete picture concerning household’s economic resources. While being part of government final consumption expenditures⁴, it is at the same time viewed as income in the System of National Accounts (SNA). According to the SNA, this part of government expenditures is classified household sector consumption and at the same time income⁵. Furthermore, the idea to include STiK in the income concept has also emerged in micro statistical environment. For example, the Canberra Expert Group on Household Income Statistics concludes, that *“in principle STiK should be included in a complete definition of income”*⁶.

In the recent past, the demand for income distribution measures based on extended income concepts that include government transfers in kind was emphasized⁷. Still there is a variety of open methodological questions concerning the implementation in micro data based

² Cf. Stiglitz, J, et. al. (2009), p.12

³ For the conclusions of the EGDNA expert group cf. Fesseau / Matonetti (2013). The author of the present IARIW paper is member of the subsequent “informal EGDNA” group, conducted by the OECD, carrying on research on implementation of distributional information in national accounts.

⁴ Transfers by Non-profit organizations serving households (NPISH) are another relevant part to take into account. Unfortunately there is often sparse or no statistical information available on NPISH STiK.

⁵ SNA (2008), paragraph 8.143, p.178

⁶ Canberra Group 2001, p.23

⁷ Cf. Stiglitz, J, et. al. (2009), p.30

distributional analysis. The two reports of the Canberra Group illustrate what the methodological progress in this field has been in the last years:

„However the statistical community is some way from being able to agree on a definitive method of valuation and allocation [of STIK] to individual households. More research and experimentation are needed“ (Canberra Group 2001)⁸.

This conclusion is not very different ten years later:

„In summary, a full consensus on definitions and methods is still lacking. More research is needed in this field. [...] STIK is excluded from the operational definition of income due to practical measurement issues“ (Canberra Group 2011)⁹.

A multitude of academic papers¹⁰ has already provided experimental calculations on income distribution with extended concepts including STIK. Still, it is not clarified if there is a benefit by income measures including STIK¹¹. The purpose of this paper is therefore to shift the focus from technical implementations towards the questions remaining open in the inclusion of STIK in distributional analysis.

At least two questions have not been clarified:

- What is the purpose of including STIK in income distribution: measurement of resources consumed by households or comparison of household's economic well-being?
- How can results based on extended income concepts be interpreted and communicated in the public, when disposable cash income is what people perceive as their income?

Current approaches to include STIK in income distribution analysis try to allocate every single type of transfer to households the way they actually consumed it or by a group-specific average (so called insurance value approach). This leads to the problem that households with members in bad health conditions or with children in school, hereby receiving additional income, are moving upwards in the income distribution. When asking for what should be prevented in the application of extended income concepts, the Canberra Group concludes in the 2001 report: „Those who are sick, should not be considered as better off as a result of benefiting from subsidized health care programs“ (p. 64). „It is difficult to see when it would be desirable to reclassify a poor household to a rich category simply because they had the misfortune to require extensive medical services“ (p.23). Current approaches try to correct misleading results by

⁸ Canberra Group 2001, p.23

⁹ Canberra Group 2011, p.43

¹⁰ Examples are: Verbist et. al (2012), Aaberge (2010), Paulus (2010), Marical et. al (2006), Steckmest (1996), Smeeding (1993)

¹¹ Cf. Fesseau / Matonetti (2013), p.10

needs-adjusting equivalence scales. Hence, if perfectly implemented these corrections should lead to the same result as excluding the respective STIK type from the concept.

The paper proposes an alternative approach of including STIK in distributional analysis by first asking if a certain type of STIK generates an economic advantage in comparison to other households and thereby by is income alike or in contrast only corresponds to specific needs. This question refers to income distributional analysis in general, even if the focus of this paper and the starting point for reflections about STIK is the definition by the SNA¹². After some general remarks on the meaning of adjusted disposable income in national accounts, a proposal for a classification system for STIK as income is presented as a possible solution to deal with STIK in distributional analysis. The provisional classification system is then applied against the institutional background of social protection systems in Germany and the United States¹³ to illustrate questions and complexity resulting in practical implementation. Finally, micro estimation approaches are discussed for the two countries and the data situation for distributional implementation of STIK is highlighted.

It is absolutely necessary to emphasize that this paper does not claim to present complete and fully adequate solutions. The main purpose is to reveal important aspects neglected in the past and present discussion on the possible treatment of STIK in income distribution analysis. Therefore, the focus is purely on conceptual issues.

The valuations on the treatment of STIK components in distributional analysis in the United States case (proposals for income classification and appropriate imputation techniques) are based on recommendations by Kevin Furlong from the U.S. Bureau of Economic Analysis.

1. Social Transfers in Kind (STiK) according to the System of National Accounts (SNA)

STIK according to the System of National Accounts (SNA) are defined as goods and services provided to households for individual consumption, either for free or at prices that are not economically significant¹⁴. These transfers consist of final consumption expenditures undertaken by government and Non Profit Institutions (NPISH) on behalf of households. In contrast to genuine public goods, consumption of STIK by one household precludes consumption by another household, a good or service once individually consumed, brings no (or only little) benefit to other households according to the SNA¹⁵.

¹² EUROSTAT for example currently coordinates research activities on the treatment of STIK in distributional analysis in the context of EU statistics on income and living conditions (cf. EUROSTAT (2013): The distributional impact of public services in European countries)

¹³ Major contributions concerning the description of the United States social protection system were made by Kevin Furlong from the U.S. Bureau of Economic Analysis.

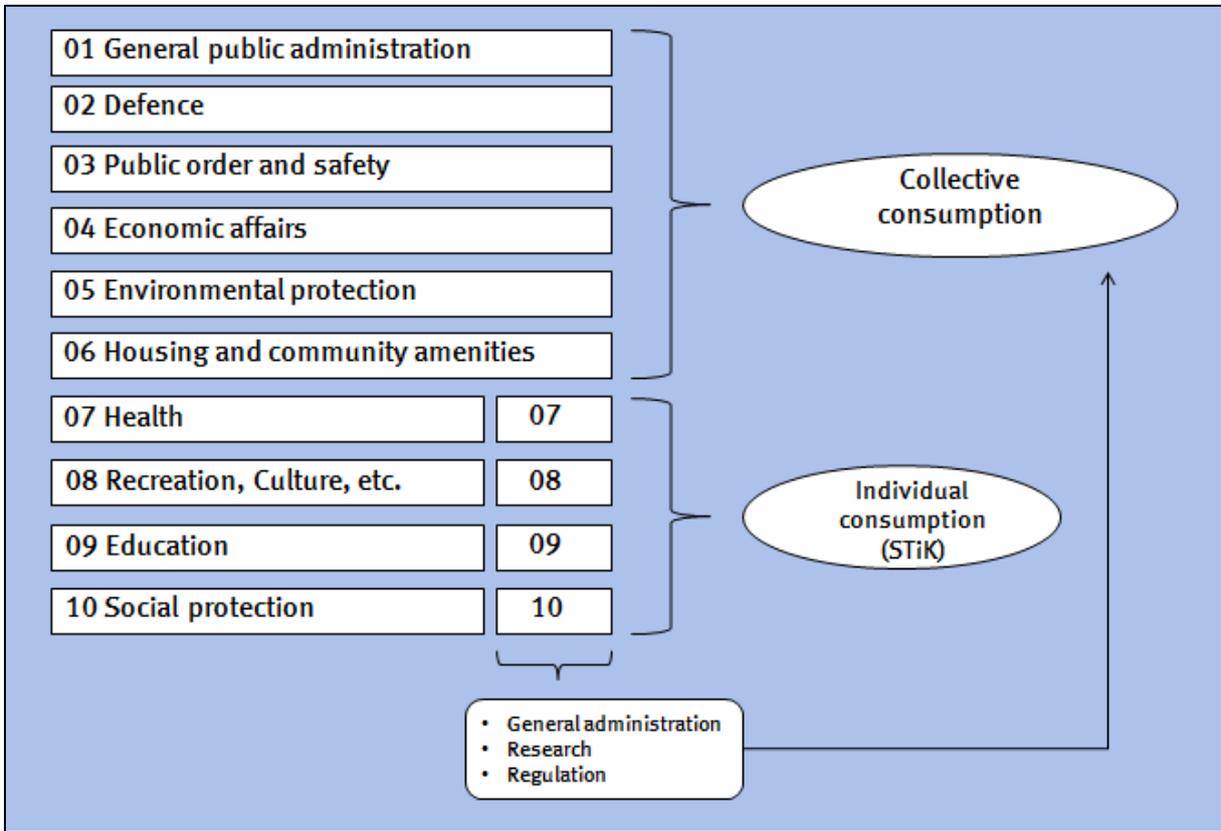
¹⁴ SNA (2008), paragraph 8.141, p.178

¹⁵ SNA (2008), paragraph 9.94, p. 190

In case of STIK as government transfers, the SNA refers to certain positions of the classification of functions of government (COFOG), defining the scope of individual consumption that constitutes STIK in contrast to collective consumption.

The definition of STIK provided by NPISH is the same as in case of government transfers, the major difference is that provision of goods and services will most probably be restricted to members of the providing institution¹⁶. While government expenditures are in general accurately recorded in statistics on public finance, data availability for NPISH is rather sparse, thus making it difficult to construct STIK estimates in the latter case.

Graph 1: Classification of Functions of Government (COFOG) and classification as collective consumption or STIK in the SNA



The SNA definition of STIK refers to current expenditures of government. If goods or services for individual consumption are provided by means of fixed capital formation (e.g. purchase and maintenance of buildings or machines) or by subsidies on products (e.g. public transports), they might be equivalent to the nature of STIK, but are not recorded as such in national accounts.

One might question the adequacy of classifying certain types of STIK as individual consumption, if criteria is no (or only little) benefit to other households. In case e.g. of public expenditures for

¹⁶ SNA (2008), paragraph 9.106, p. 192

primary education, public arts or youth mentoring programs it might perhaps be even more appropriate to conceive them as collective consumption. For example, the United States national accounts practice classifies public expenditures for primary and secondary education (until the age of 18 years) or museums as collective consumption and not as STiK, hereby departing from the SNA¹⁷.

In the following chapters, the issue is addressed if an attribution of the respective STiK expenditure types to single households is meaningful.

2. Adjusted disposable income in international comparison between countries – An income concept for international comparisons of living standards

The inclusion of STiK in an extended income concept is discussed with the argument of a more accurate measurement of well-being¹⁸. But how should economic well-being be conceptualized? The report of the 2009 Stiglitz-Sen-Fitoussi Commission focuses a multidimensional definition with a variety of aspects shaping peoples' well-being. The Stiglitz-Sen-Fitoussi definition also encompasses components like personal activities, social relationships or environment externalities to be possibly included in an income measure¹⁹. The present paper is only referring to economic well-being. The object of interest of these reflections finally is differences in the income level when we talk about divergences between households.

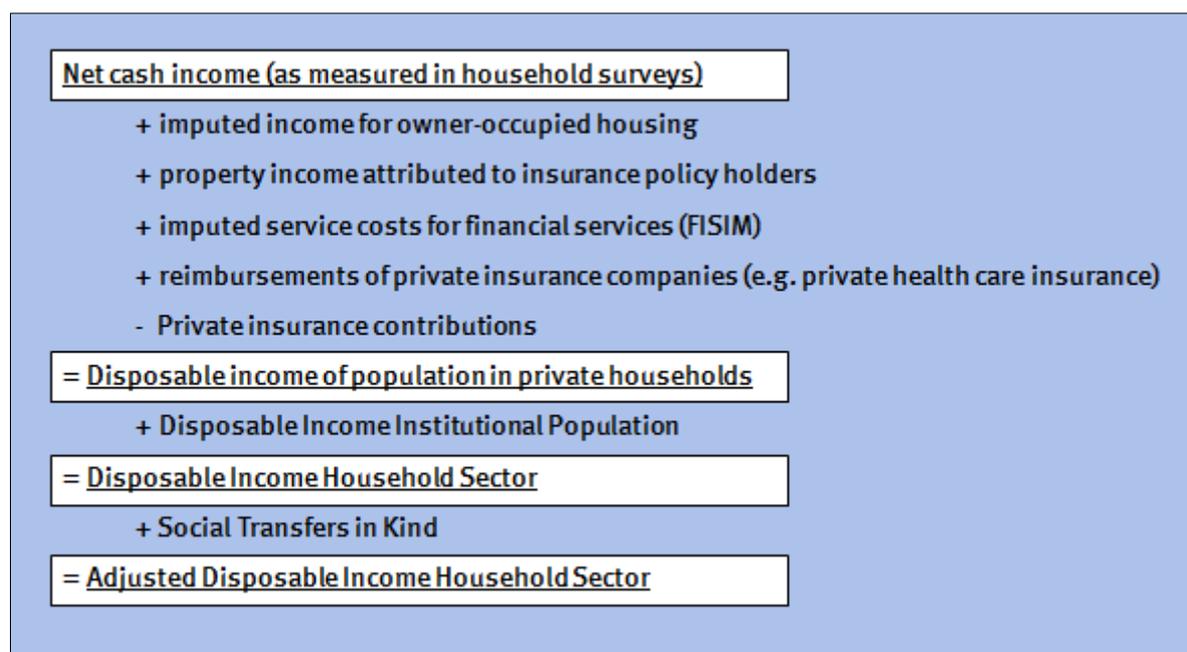
Household Sector's Disposable Income according to the SNA consists of net cash income as measured by household surveys (market incomes minus taxes and social contributions plus social transfers and other transfers) but includes some additional components. Imputed income for owner occupied housing is an income component often also computed in the production of micro statistics. In contrast, imputed property incomes from insurance contracts, financial service costs (FISIM) and so called Other Current Transfers like premiums and reimbursements in relation to private insurance contracts are national accounts specific components. Furthermore, income for institutional population is included in national accounts disposable income. Additionally, in some countries (e.g. Germany) households sector comprises incomes for Non Profit Institutions Serving Households (NPISH). Finally, adjustments for informal economic activities are applied in national accounts.

¹⁷ For international purposes like OECD statistics, adjustments to meet the requirements of the SNA are made once a year by the Bureau of Economic Analysis.

¹⁸ Stiglitz-Sen-Fitoussi (2009), p. 12

¹⁹ Stiglitz-Sen-Fitoussi (2009) mention material living standards (income, consumption and wealth), health, education, personal activities, political voice and governance, social relationships, environment, economic and physical insecurity as relevant dimensions for a definition of well-being (p.14).

Graph 2: Definition and Scope of national accounts income concepts



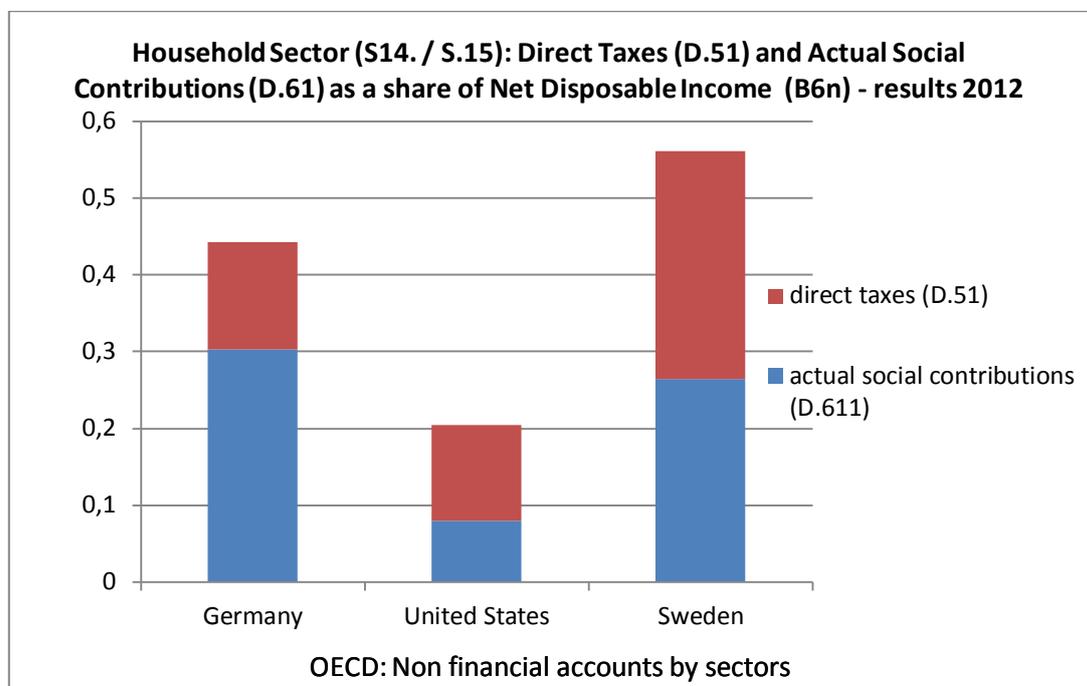
For the analysis of differences in the average level of economic well-being between countries, the concept of disposable income as defined by the SNA is still not sufficiently encompassing since it is not taking into account institutional differences of welfare regimes. The extent to which governments are providing goods and services to their citizens corresponds to national levels of taxes and social contributions. While disposable income is including redistribution of monetary transfers, goods and services provided as in-kind transfers by governments for individual consumption of their citizens are not included in this income concept.

This might lead to distortions in comparisons of disposable income in terms of per capita averages²⁰. Countries with rather low levels of taxation and social contributions, all other things being equal, have higher average levels of disposable income, as a higher share of market incomes is remaining at household's disposal. In contrast, countries with higher taxes and social contributions have lower averages of disposable income. Still, this does not correspond to the actual national standard of living, since social transfers in kind are the counterpart to higher deductions of household's market incomes. These goods and services financed by taxes and social contributions and provided for individual consumption of households have to be included in the comparison to get a meaningful picture of international differences of economic well-being in a per capita perspective. Countries with a lower level of disposable income due to higher taxation and social contributions will most likely redistribute more transfers (in cash or in kind) and the standard of living in these countries is possibly distorted downwards by using the concept of disposable income.

²⁰ Cf. Stiglitz-Sen-Fitoussi (2009), p. 12

Adjusted disposable income is an extended income concept in national accounts that includes social transfers in kind, thereby mitigating divergences yielding from differences in the institutional settings of welfare regimes.

Graph 3: Differences in the national levels of (direct) taxes and (actual) social contributions

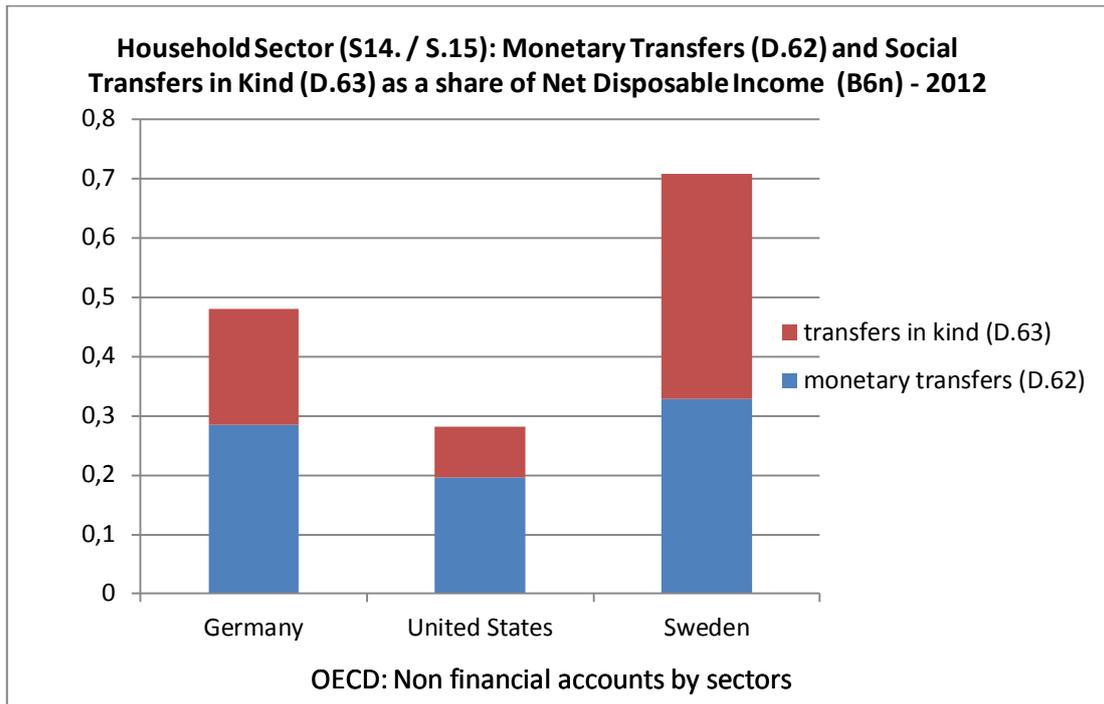


Graph 3 shows considerable differences in the national levels of (direct) taxes and (actual) social contributions²¹ as a share of household sector (S.14 / S.15) net disposable income (B6n) for 2012, which is for example 20% in the US, 44% in Germany and 56% in Sweden²². The counterpart information to these deductions is allowances by general government (S.13) that households receive, i.e. the sum of monetary transfers (D.62) and social transfers in kind (D.63). The importance of monetary transfers (D.62), assessed in relation to disposable income, is quite different in Germany (29%), the US (20%) and Sweden (33%). Additionally the figures shows a rather high relevance of in-kind transfers as a share of household sector (S.14 / S.15) net disposable income (B6n) in Germany (20%) and Sweden (39%) while the US level is rather low (9%). Taking into account only monetary transfers and not transfers in kind in an international comparison of living standards by means of per capita household incomes would therefore not display a meaningful picture.

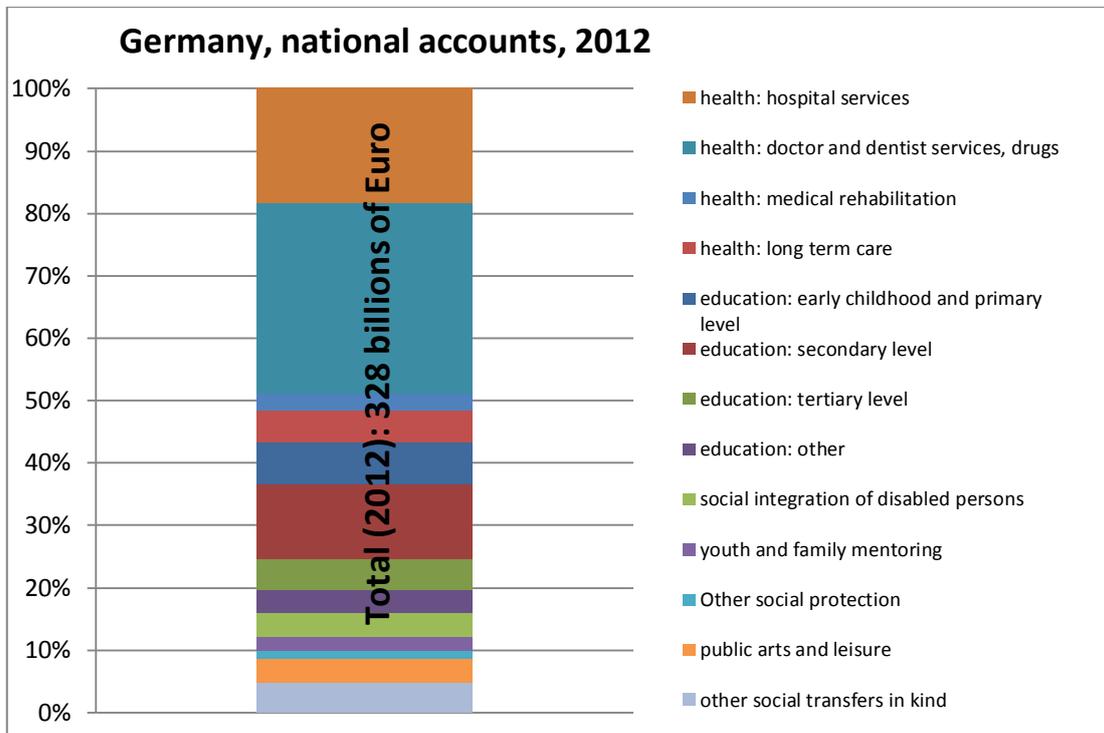
²¹ Imputed Social Contributions for public servants excluded

²² Sweden is taken as additional example to the two countries in the focus of this paper as it represents one type of country with a highly developed social protection system and corresponding public expenditures. Esping-Andersen (1990) classifies Sweden as part of “social democratic” welfare regimes while the US is considered part of the “liberal regimes” and Germany part of the “corporatist regimes”, cf. Esping-Andersen (1990), p.26

Graph 4: Differences in the national levels of government transfers



Graph 5: Social Transfers in Kind per type of expenditure



A major part of government spending for transfers in kind consists in expenditures for health care, a long term care and education. In Germany, these STiK types make up more than 80% of total transfers in kind. The remaining transfers are dedicated to social integration of disabled persons, youth and family mentoring, public arts and leisure and other purposes.

3. National distribution of adjusted disposable income between households

3.1 Proposal for a definition of criteria for the inclusion / exclusion of STiK expenditure types in income distribution analysis

In an international comparison of national accounts aggregates, national per capita values of adjusted disposable income are compared. In contrast, when we analyze disparities between households, we are comparing single households with each other at the national level. “Who is doing better and who is doing worse” is the question asked in this perspective. The first approach compares average levels of economic well-being between countries, the second approach compares divergences between household’s economic well-being within one country²³. Depending on the analytical aim, the appropriate income concept shall be used. While adjusted disposable income per capita seems to be the most useful concept for international comparisons between countries, it need not necessarily be the adequate instrument for analysis of national income distribution and comparison of economic well-being between households.

When shifting from the aggregate to the distributional perspective, there are at least two alternatives how to deal with STiK:

- One option A is to identify transfers in kind that are generating economic advantages in comparison of households and to classify them as income. This corresponds to the approach of economic well-being (asking for “who is better off”) and is taking into account the income character of certain types of STiK including it a distributional estimate and the needs-based character of certain types of STiK excluding it from distributional analysis.
- Another option B is to follow distribution of all economic resources, no matter if they correspond to a better position in terms of economic well-being or just to higher needs (asking for “where the money goes”). As a consequence, all types of expenditures are broken down on households. This corresponds to the approach of following every single STiK-Dollar or STiK-Euro spent by government trickling down in the economy, analyzing which share of these public expenditures totals certain household types are actually consuming in comparison others.

²³ For an entirely complete picture of economic well-being, private wealth has to be taken into account additionally. This holds for international comparisons between country averages and for comparisons between single households within one country.

In regards to the issue of economic advantage, the question persists if it is appropriate to classify given types of public expenditures as individual consumption (and as a consequence as STiK), if there is a certain benefit resulting for other households²⁴ respectively for the economy as a whole. These reflections lead to a classification of STiK on an axis between pure individual and pure social utility as displayed in Graph 6. Attesting rather social utility could lead to reclassify STiK as collective consumption and exclude it from the extended income concept in distributional analysis.

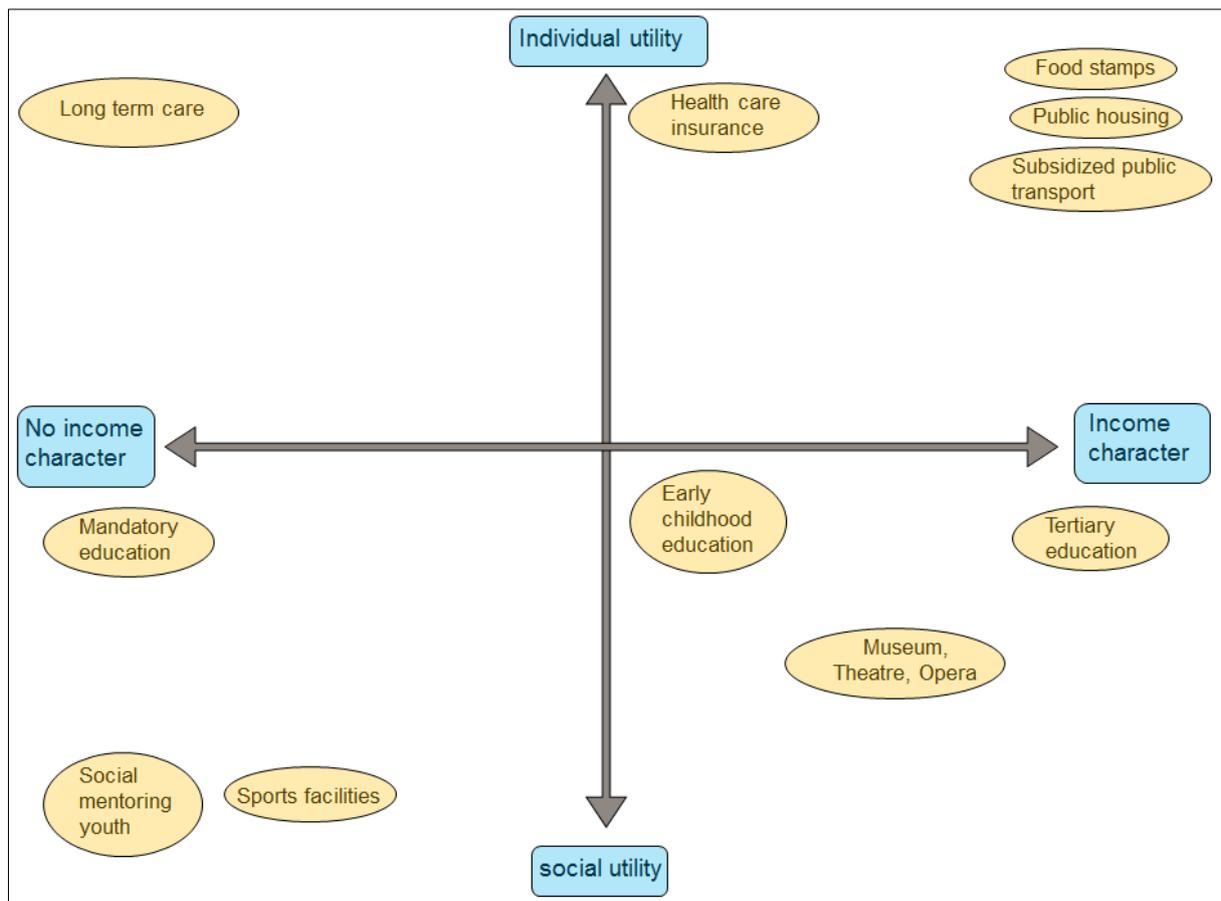
The paper argues that of the two mentioned alternatives, option A is the relevant option to measure disparities in economic well-being between households and that option B should be preserved for other purposes.

Following approach A and taking decisions which types of STiK to classify as income in distributional analysis requires the definition of classification criteria to judge national particularities of social protection institutions and to get to a conclusion on including or excluding certain types of STiK.

The following is an attempt to define classification criteria. The main idea behind is that for a classification as income in distributional analysis, STiK must have the character of genuine individual consumption without any benefit for society or the economy as a total (hence generating pure individual utility) and that there have to be economic advantages yielding from the receipt of STiK for a given household in comparison to others (that do not save income for other purposes by receipt of STiK). The opposite situation is that certain types of STiK can by their nature hardly be treated as income, given that their receipt is either closely related to specific basic needs which makes life without these transfers not possible (e.g. long term care for elderly) or given that the intention behind is prevention from social costs (e.g. crime). STiK in distributional analysis should therefore be judged on a two-dimensional scale between the income or no income position and between the social or individual utility position. Pure individual utility corresponds to the circumstance, that a given type of expenditure individually consumed brings no benefit to the rest of the community.

²⁴ Cf. SNA (2008), paragraph 9.94, p. 190

Graph 6: Sample of classifying STIK in a national perspective of differences between households



Graph 6 is a proposal to classify STIK between the extremes of pure social or individual utility and pure income or needs-based character as an experimental proposal without claim of completeness or full adequacy. As it shows there is on one hand types of STIK, where the economic advantage of receipt (e.g. food stamps or subsidized housing) respectively the needs-based character (e.g. long-term care, mandatory education) of expenditure types is more evident. There is also types of STIK where a strong argument for social utility can be made (social mentoring, sports facilities). There is on the other hand STIK types where a clear judgement seems more difficult. In case of museums, theatre or opera there might be an intention of public information and promotion of arts but still exist a social bias in use that prevents from attesting these expenditures a pure social utility.

The following table 1 tries to derive some analytical criteria from these considerations. The authors' hypothesis that if STIK is conceived in a perspective of economic well-being (option A), there is a need to develop such criteria. This criteria definition is meant as a first step with the intention to enrich the current discussion on STIK in distributional analysis, which is mainly limited to technical issues of breaking down the SNA definition based STIK on single households.

Table 1: Criteria to classify STIK in distributional analysis

Criteria 1	Is the nature of STIK rather close to collective consumption in the sense, that it contributes to public security, public information or basic personal skills for participation in public life, thereby being similar to a public good?	If yes, no income
Criteria 2	Is there a compulsory obligation to participate while funding is collective?	If yes, no income
Criteria 3	Is the receipt of STIK corresponding to a severe disability preventing totally from doing paid work?	If yes, no income
Criteria 4	Does the receipt of STIK generate economic savings compared to a market price that other households pay? If yes, difference to market price is income	If yes, difference to market price is income
Criteria 5	Do STIK cover a risk of exclusion from economic participation that possibly everyone can be exposed to in life?	If yes, income
Criteria 6	Is education not mandatory and completely or partially cost-free for households?	If yes, subsidized part is income

The second part of this chapter will analyze institutional properties on the United States and Germany in detail and try to find a preliminary conclusion on the question if, against the specific national backgrounds, respective types of STIK shall be classified as income or no income in distributional analysis according to the proposed classification methodology.

3.2 Outline of institutional properties in welfare systems (US, Germany), treatment of STIK expenditure types in distributional analysis according to defined criteria

3.2.1 Health and long term Care

3.2.1.1 Germany

The German *health care* and *long term care* system is financed by a compulsory obligation to individual health insurance coverage, either by social insurance or private insurance contracts. In case of social insurance, employees with a monthly income up to a legally defined threshold (in 2013: 4.350 Euro per month) pay mandatory social contributions in form of a fixed percentage on their monthly salaries²⁵. Dependent family members of an insured member are cost-free insured. Retirees pay contributions as a fixed percentage on their old age incomes, students in tertiary education pay a flatrate contribution. Recipients of basic subsistence benefits (ALG2), if not cost-free insured as family members, get parts of their insurance contributions covered by social

²⁵ The same percentage on the respective salary is additionally contributed by the employer

protection authorities, either for social or private insurance contracts. As all persons being member of social insurance and paying contributions at different levels have equal claims with respect to allowances, this system practically has a redistributive effect. Those persons above the salary threshold, furthermore public officials and self-employed are not legally obligated to social insurance and can choose between social insurance or private insurance contracts. Allowances in case of private health insurance contracts depend on the insurance product. Long term care as subject to insurance has been integrated as compulsory element into health care insurance due to demographic developments in the last decades. The level of allowances in case of long term care is legally regulated and the same in both cases social and private long term care insurance. This being illustrated, the German system can be described as a divided system with social and private health and long term care insurance as two coexisting systems. In 2011, 88% of the population was member in social health insurance, 12% had a private health insurance contract²⁶.

Allowances in case of social health care insurance are mostly in-kind-transfers, monetary transfers only make up a small part (e.g. wage maintenance on sick leave). Medical treatments, hospital treatments and drugs are directly paid by social insurance. In contrast private insurance works via direct billing of households and later reimbursement due to the insurance contract. In general, service-providers can realize higher compensations in case of privately insured persons. This is considered to lead towards an asymmetric quality in service between the two insurance regimes, privately insured persons in public opinion often labelled as first class patients.

In distributional analysis, there is at least two options for Germany for *treatment of health care* STIK: One option is to exclude it from a distributive measure (according to criteria 2: legal obligation to participate). The other option could be to refer to criteria 5 and conceive health care as a life-long risk, which is ex-ante equally distributed over all persons. Accordingly, average costs separated by the two insurance regimes (social and private insurance) could be assigned to every person, given that membership in social or private insurance is usually life-long. This would take into account differences in service level between the insurance regimes and is therefore probably a more adequate solution. A modified option to be discussed is to account only for the difference in average costs between the two regimes, hereby focussing only the economic advantage.

In *case of long term care*, expenditures might be conceived to fulfil basic economic needs of persons that are prevented totally from doing paid work due to a severe disability (criteria 3) and to exclude it from the income concept. As such it would make sense to exclude them from

²⁶ BMG (2013). Daten des Gesundheitswesens, <http://www.bundesgesundheitsministerium.de> (Federal Ministry of Health)

distributional analysis. The level of allowances is equal in social and private insurance regime due to uniform legal regulation.

3.2.1.2 United States

In the US, most households pay for their own private *health insurance* either directly out of pocket or through their employer as a fringe benefit. Typically, employers offer a variety of plans, ranging in the types of medical procedures covered and in the cost of the deductible – all of which affect the price of the premium. For the poor and elderly, the government provides health insurance for free or at a subsidized cost through the Medicaid and Medicare programs. In 2012, 44.5 percent of Americans had employer-based health insurance, 25.6 percent had a government-based plan, 16.9 percent were uninsured, and 11.1 % had something else (presumably a private insurance policy)²⁷.

Prior to the implementation of the Affordable Care Act (ACA), signed into law by President Obama on March 23, 2010, Americans were not required to have health insurance. However, with the new law now in effect, those who fail to sign up for health insurance by March 31, 2014 face a fine equal to \$95 per year or 1% of their salary – whichever is greater. Each year, the fine is set to increase which, by 2016, is set at \$695 per person or 2.5% of their salary – again, whichever is greater²⁸.

Medicaid is a state-run program specifically targeted at the poor, including children, the disabled, and elderly in need of a nursing home. To qualify for these programs, households must meet certain eligibility requirements that depend on factors such as their age, pregnancy status, degree of disability and their income in relation to the official poverty line. Medicaid is financed primarily by general tax revenue.

Medicare is a federal program specifically targeted at the elderly - those aged 65 and older. However, younger households may also qualify if they have certain disabilities, including permanent kidney failure and Lou Gehrig's disease. The Medicare program is financed by two main sources: payroll taxes paid by employers and employees and premium payments. Because the payroll taxes are based on an employee's salary, the program is redistributive in nature with higher income households paying a larger share than lower income households.

Medicare consists of four parts: Hospital Insurance (Part A), Medical Insurance (Part B), Medicare Advantage (Part C), and Prescription Drug Coverage (Part D). Part A is the only program within Medicare that does not require additional premium payments during retirement, assuming the

²⁷ These statistics are based on Gallup: <http://www.gallup.com/poll/160676/fewer-americans-getting-health-insurance-employer.aspx>

²⁸ More information can be found here: <http://www.cms.gov/Regulations-and-Guidance/HIPAA-Administrative-Simplification/Affordable-Care-Act/index.html>

household has paid into the program via payroll taxes over the course of their career. The remaining three parts (B, C, and D) all require an additional monthly premium supplement to participate.

From a US point of view on distributional analysis²⁹, the value of health care STiK on the household level should be recorded as what the household would have paid had they purchased their own plan on the private market. As such, the person's risk should also be factored into the premium calculation. Based on criteria 4, health care expenditures are considered income.

Long-term Care in the US consists mostly of cash transfers from the government. These include Supplemental Security Income (SSI) and Social Security Disability income³⁰. These individuals would most likely also qualify for Medicaid (government provided health insurance targeted at the poor and elderly). As the majority of these benefits are cash transfers, there is no relevance as STiK. The classification criteria do not apply.

3.2.2 Education

3.2.2.1 Germany

Early Childhood education

In the past few years there have been considerable political efforts to strengthen *Early Childhood education* offers, especially for children below the age of 3 years where infrastructure still is lagging. In 2013, legal claims for access of working parents to publicly provided Early Childhood education has been extended to the age below 3 years at the federal level, leading to remarkable extensions in municipality's Early Childhood education capacities.

Early Childhood and pre-school education costs are covered partially by municipalities, sometimes by NPISHs (mainly churches) and by parents. STiK for Early Childhood education can currently only be included in case of government transfers due to missing detailed information for NPISH. The regulation of parent fees for municipal facilities is principally executed at the municipal level, thereby leading to substantial differences in parent's financial burdens between local areas. Fees in detail additionally are quite varying depending on household income and number of children.

Classification as income or no income is difficult to specify. Arguments can be made in different directions: Having children can be judged to constitute a risk of exclusion from economic participation (argument 5, no income), as a subsidy respectively savings compared to market

²⁹ These considerations are based on recommendations of Kevin Furlong from the US Bureau of Economic Analysis. The same holds for valuations of US STiK treatment in the following paragraphs.

³⁰ SSI is designed to help the aged, blind, and disabled. Social Security Disability Income is similar to SSI, however, qualifying individuals must have first worked and paid into the system for a number of years to qualify.

prices, diverging between households and enabling better exploitation of labor resources (criteria 4, income) or finally as a social utility (criteria 1, no income). This illustrates the complexity of the issue, a final conclusion is therefore postponed and the imputation and data availability question is therefore not discussed in detail in this paper.

Mandatory education: primary and parts of secondary education

In German Education system, participation in *primary and* most parts of *secondary education* is mandatory. Regulation in detail depends on State laws, but in general comprises 9 years of school attendance. Public schools in these education stages are sustained by State households. Schools run privately by churches or by institutions focussed on alternative educational priorities (e.g. the Waldorf or the Montessori principles) have been getting more numerous over the years. Their founding is covered to 85% by public means as well.

A feasible way to approach the education issue is asking if participation is mandatory (criteria 2). With respect to the German circumstances, participation in the education system is mandatory for 9 years while founding is collective. This argument would lead to excluding primary and main parts of secondary education from the income concept for Germany.

Tertiary education

There is an established infrastructure of *tertiary education* opportunities in public universities in Germany. Participation in tertiary education in the public education sector is mainly cost-free in Germany. On the other hand there exist private universities, charging students full costs for their education. In 2010, approximately 5% of all students in Germany were registered in private universities.

Education in case of public universities is provided as transfer in kind. The actual costs per student are considerably differing according to the education subject. A special case to be mentioned is human medicine as a discipline, with average costs being a multiple of other academic disciplines³¹.

Attending cost-free education is granted in case of public universities in Germany. While participants in private institutions pay back education credits after graduating, former students in public universities can use their earnings completely for consumption and saving. Therefore these STIK should be counted as income (criteria 6). The mode of imputation in micro data might be considered in various ways which is discussed in detail in chapter 4.

³¹ In 2011 on average 30.900 € were spent per student in human medicine in Germany, while in case of economics, law and social sciences it was 3.500 € (Federal Statistical Office)

3.2.2.2 United States

Early Childhood Education

Child care assistance is a state-run program aimed at assisting low-income households. Like most social welfare programs, households must meet certain eligibility requirements. For households not considered poor and who wish to send their children to child care, they must pay for this service out of pocket. From a distributional perspective, households that receive this service for free should be assigned an income value equal to what the same child care service would have cost had they purchased the plan themselves on the private market.³² (criteria 4).

Mandatory Education

The US national accounts do not consider compulsory primary respectively secondary education to be a social transfer in kind. Rather, it is considered a general government service similar to expenditures on public roads, defense, and lighting. Children are required to start attending school typically around the age 5-6 and lasting until they are 17-18 years of age. This is commonly referred to as the K-12 system (Kindergarten and 1st through 12th grade)³³. Therefore it seems appropriate to exclude primary and secondary education from the income concept due to its nature of collective consumption (criteria 1) respectively the compulsory obligation to participate (criteria 2).

Tertiary Education

The government offers several forms of financial aid for higher education. These include fellowships, student loans offered at favourable interest rates, and Pell grants. The last two of which are aimed at lower income households. From a distributional perspective, the full value of these benefits should be recorded as income. This is because, had the household not qualified, they would have had to pay for the full cost of the education themselves out of pocket³⁴ (criteria 4).

3.2.3 Miscellaneous transfers with rather income character

3.2.3.1 Germany

Public housing allowances in Germany are mainly included in monetary transfers of basic subsistence (Arbeitslosengeld II, Hilfe zum Lebensunterhalt, Grundsicherung im Alter, Wohngeld). Households without sufficient income to afford housing, can apply for assistance to cover their current rent. Social transfers in kind only make up a marginal part of all housing

³² More information about the various state child care programs can be found here: <https://childcare.gov/>

³³ More information about the US education system can be found here: <http://www.ed.gov/>

³⁴ More information about the federal student aid can be found here: <http://studentaid.ed.gov/types/loans/subsidized-unsubsidized>

allowances. In principle, STIK for subsidized housing generate economic savings compared to a market price that other households pay (criteria 4) and should be classified as income. Currently, the relevance of STIK for public housing is too small in Germany for encompassing methodological reflections on their distribution.

Music performances, theatre, libraries, museums, swimming baths or sport facilities are parts of a municipal infrastructure conceived to enhance local quality of life. In Germany there was more than 6 billions of Euro publicly spent in 2012 for music, theatre, libraries and museums. Another 6 billions was spent for sports and leisure³⁵. With respect to distributional measures there might be two alternative views: on one hand there might be attested a mission in public education or public health (criteria 1). If citizens, students and visitors are enabled to experience national cultural heritages, if expenditures for public leisure and sports infrastructure (swimming baths, football grounds, etc.) enrich local quality of life, there is an argument to treat these expenditures as collective consumption and to exclude it from distributional analysis. On the other hand there is certainly a social bias in use of certain highly publicly subsidized services like opera, music halls and public libraries. In these cases where individual utility might clearly exceed social utility, a classification as income is probably more reasonable. A final conclusion is currently postponed due to the complexity of this question.

3.2.3.2 United States

Two *food assistance programs* are offered by the US federal government: the Supplemental Nutritional Assistance Program (SNAP – formally called food stamps) and the Woman, Infant, Child program (WIC). SNAP provides food assistance to low-income households that meet certain eligibility requirements. Eligible households receive a monthly allotment that is a function of the number of people in the households. For example, a single-person household can receive a maximum of \$189 per month whereas a household with four people can receive a maximum of \$632. Likewise, the WIC program is specifically targeted at low-income pregnant woman, postpartum and breastfeeding women, infants and children identified to be at nutritional risk. Again, certain eligibility requirements apply. In 2013, over 23 million households (approximately 20 percent of all US households) received SNAP benefits and 8.6 million households (approximately 7.2 percent of all US households) received WIC benefits³⁶. From a distributional perspective, the value of the benefit received should be recorded as income as it corresponds to savings compared with a market price (criteria 4).

³⁵ Federal Statistical Office (2014), statistics on public finance

³⁶ Data on SNAP can be found here: <http://www.fns.usda.gov/pd/snapmain.htm>
WIC data can be found here: <http://www.fns.usda.gov/pd/wicmain.htm>

The *housing* choice voucher program (formally called Section 8) provides assistance to qualifying low-income, disabled, and elderly people with affordable housing³⁷. Subsidies are paid directly to the landlord rather than to the individuals themselves. Participants are then required to pay the difference between the market rent (i.e. the rent a non-qualifying household would pay) and the subsidy received by the landlord. In the US national accounts, this shows up as a transfer from the government to the landlord/business owner. As such, it does not show up in the redistribution of income account as a government monetary social transfer or a transfer in kind to the household directly benefiting from the subsidy (even though some people would argue it should). From a distributional perspective, the full value of the subsidy should be recorded as income for the qualifying household since it generates savings compared to the market price (criteria 4).

Low-income households may also be eligible to receive *energy assistance*. For this program, the government helps to pay a portion of the household's utility bill. This, unlike housing subsidies, shows up in the redistribution of income account as a government monetary social transfer because the subsidy goes directly to the household, rather than the utility company. However it would make more sense to record these expenditures as in-kind transfers. This is because the money has a specific use (to pay for electricity, natural gas, and heating oil) thus limiting what the money can be spent on. From a distributional perspective, the full value of the energy assistance should be recorded as income.

3.2.4 Miscellaneous Transfers with rather no income character

3.2.4.1 Germany

Basic subsistence for severely disabled persons in institutions (Eingliederungshilfe für behinderte Menschen) is a considerable expenditure volume encompassing around 13 billions of Euro in 2012³⁸. Following the argument expressed in criteria 3, these transfers in kind correspond to basic needs covered for persons without any other options to economic participation and should be excluded from distributional analysis³⁹. For those persons, life would simply not be possible without this assistance.

Publicly financed *social mentoring for youth* (Jugendhilfe) is executed either by municipal institutions or by non profit institutions serving households. In 2012, around 8 billions of Euro were spent by public households for this purpose⁴⁰. In German national accounts these current expenditures by government are classified as STIK. An alternative conceptual view might be not

³⁷ More information can be on the housing voucher program found here:
http://portal.hud.gov/hudportal/HUD?src=/topics/housing_choice_voucher_program_section_8

³⁸ Social protection statistics (Federal Statistical Office 2014)

³⁹ Since income surveys like EU-SILC do not cover institutional population, there would be technical problems if this type of STIK was considered being relevant to include in distributional analysis.

⁴⁰ Social protection statistics (Federal Statistical Office 2014)

to conceive these expenditures as individual consumption, but as collective consumption (criteria 1). The rationale behind is that similar to public services as defence and public security assured by police, equally preventive social work is contributing to avoid crime and to maintain social order. As a consequence, these expenditures should be excluded from the income concept.

3.2.4.2 United States

Social mentoring of youth would have to be considered as no income, according to criteria 1. In U.S. national accounts, this shows up under general government services (collective consumption), rather than a social transfer in kind (similar to the treatment of sports facilities, libraries, parks and primary education).

3.3 Conclusion on types of expenditures: which ones are income?

The following table gives an overview on the (preliminary) choice made concerning the classification of STIK as income or no income in a national distributional perspective.

Table 2: STIK categories, classification as income

	Germany	United States
STIK category	Income?	Income?
Health Care	yes	yes
Long term care	no	Not relevant as STIK**
Early Childhood Education	yes	yes
Mandatory education*	no	Not relevant as STIK***
Tertiary education	yes	Yes
Food assistance	No relevance	Yes
Housing	Not relevant as STIK**	Yes
Social mentoring youth	No	Not relevant as STIK***
Public sports facilities, libraries, museums, etc.	In principle yes	Not relevant as STIK***

*Primary and (parts of) secondary education

**Recorded as monetary transfers in national accounts

***Recorded as collective consumption in national accounts

4. Imputation of STiK in micro data

4.1 Concepts

In distributional analysis, STiK have to be broken down from the aggregate national accounts level to the individual households. Since households themselves do not know the actual value of goods and services consumed, auxiliary information has to be used to create procedures to distribute STiK between households. These procedures are called “imputation techniques” in the current discussion, not to be confounded with applied methodology in case of item-non-response in household surveys. In current discussions and literature on STiK in distributional analysis, there are basically two approaches proposed and applied in experimental calculations: the *actual use approach* and the *insurance value approach*. Both might be conceived as one approach functionally equivalent since they are following the same logics: While the actual use approach tries to break down STiK using information on actual consumption (e.g. frequencies of use combined with average costs), the insurance value approach operates with costs related to a group specific average (e.g. health care consumption per age group corresponding to the consumption propensity). Both approaches are more or less related to the idea of approaching the actual consumption the most accurate as possible.

A second proposal rarely discussed is the so called *flat rate approach* or *social insurance approach*⁴¹. The flat rate or social insurance approach corresponds to a per capita value that every household gets assigned independently from its actual consumption or its consumption propensity. The rationale behind that approach is that all households potentially participate of a certain welfare institution once they get into a position of need. A possible application domain is German social health insurance, where membership usually is life long and every insured member has claims for allowances in case of need that are part of a legal catalogue.

Another approach proposed in this paper is the *amortization approach*. Its logic follows that of an investment good causing future paybacks. It could be a possible imputation approach for higher education, conceiving public tertiary education expenditures as individual human capital formation. Amortizing these costs over “lifetime of the product” prevents from getting strong increases of income in education years that might lead to misleading conclusions. Still, it must not be confounded with the present (discounted) value of assumed future gains. The idea of the amortization approach refers only to the depreciation of education costs. However there is more research needed.

⁴¹ Cf. Braakmann/Schwahn (2012) and EUROSTAT (2013)

4.2 Critics

The question which approach is the most appropriate goes beyond technical feasibility: After breaking down STIK on households via modelling techniques, the question has to be asked if results are meaningful or just technical artefacts distorting the picture of economic well-being that is sought to be measured. This question is therefore also related to the defined aim of the whole exercise, which can be executed according to two different options and the additional aspect of individual versus social utility (cf. part 3.1 of the paper):

- Option A: to identify economic advantages generated by receipt of STIK in comparison of households and to exclude STIK which do not lead to economic advantages
- Option B: to follow actual consumption of all economic resources, no matter if they correspond to a better position in terms of economic well-being or just to higher needs

If the aim is to realize option B, the actual use approach at the level of individual households or an approximation by group specific consumption propensities (insurance value approach) seems therefore by definition the appropriate imputation approach. The interpretation of the results instead cannot be the household's position on the scale of economic well-being but rather the actual consumption of resources attributed to a given household.

In a perspective of economic well-being (option A), it should be prevented to draw a misleading picture increasing for example household incomes with children in public schools or elder persons with a higher risk of sickness by attributing education or health consumption expenditures (cf. remarks of the Canberra Group quoted in the introduction). The question that matters here is the economic advantage in comparison to other households.

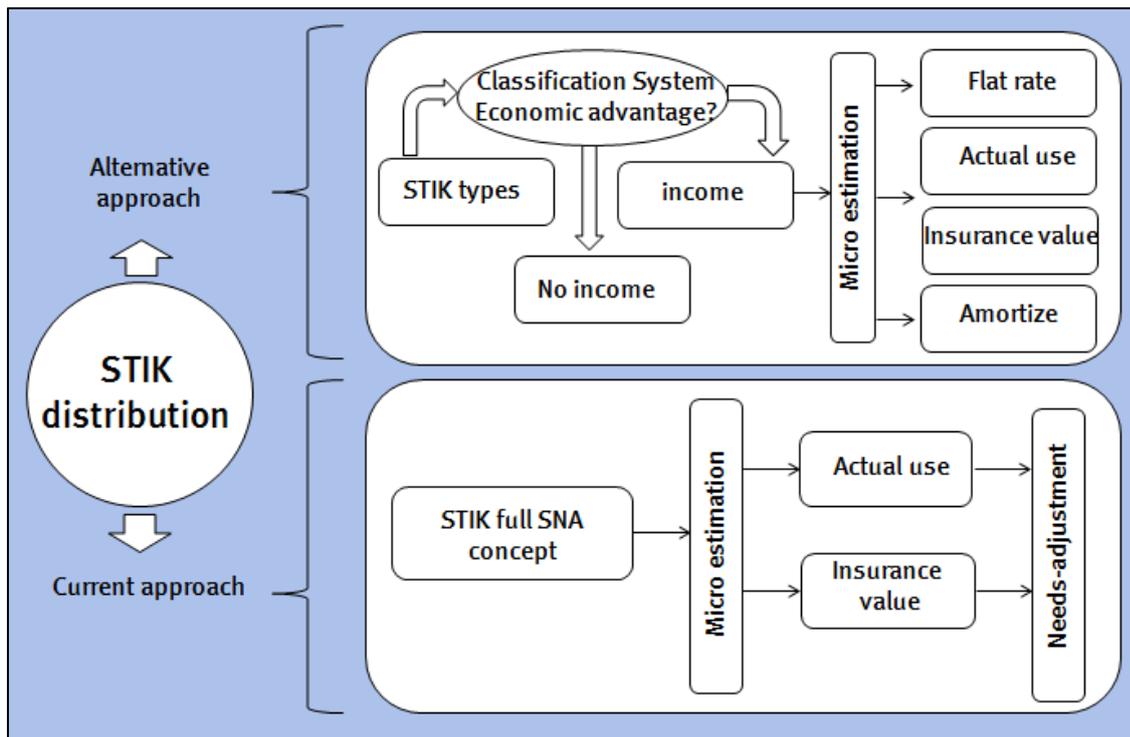
If there is no economic advantage by receipt of a STIK component, further discussion of imputation issues should be obsolete for this expenditure type in a well-being perspective, the STIK component should be excluded from the income concept. For all STIK types considered income, the following approaches seems appropriate:

- In case of STIK that contribute to more favourable economic condition for a given household in comparison to others, the actual consumption and the measurement of the corresponding economic advantage should be the aim.
- A social insurance (flat rate) approach makes sense e.g. if there are systematic differences in the level of allowances due to different co-existing social protection institutions in one national context as it is the case with health insurance in Germany.
- In case of higher education with costs at present and possibly enhanced economic well-being somewhere in the future, an approach amortizing costs over the period of

economic activity where economic effects of education are realized could possibly make sense.

The following graph summarizes the different ways of approaching the issue of STIK in distributional analysis and contrasts current approaches with our proposal for an alternative approach.

Graph 7: approaches for the inclusion of STIK in distributional analysis



4.3 Possible solutions in case of US and Germany

4.3.1 Germany

According to the preceding considerations on a classification as income or no income in chapter 3.2, in distributional analysis STIK for long term care, primary and parts of secondary education, basic subsistence of disabled persons in institutions and public expenditures for social mentoring of youth shall be excluded from the income concept for the case of Germany.

For the remaining types of STIK, we suggest to proceed in the following way for the German circumstances:

In case of health care, the risk of illness should be conceived as a life-long risk. Given that membership in one of the two insurance regimes (social or private health insurance) is usually

life-long, the social insurance value approach should be applied and it should be referred to either average costs per individual for the respective insurance regime or to the difference in average costs between the regimes. The average costs for social health insurance is derived from STIK (D.63), for private health insurance (costs for health care and long term care) from other transfers received (D.7). The latter is already comprised in disposable income (B.6).

To assure methodological consistency, reimbursements for long term care of privately health insured (which corresponds to the STIK-benefits for members in social health insurance) would have to be excluded from disposable income (B.6) if STIK for long term care (social insurance) is excluded from adjusted disposable income.

In case of Early Childhood Education, if conceived as income⁴², the actual amount of the subsidy would have to be estimated. This requires information about a market value for a given volume of childcare on one hand, and parents' fees on the other hand.

For Tertiary Education, amortization over the period of economic activity could be a reasonable approach (cf. 4.2). Amortizing the education costs corresponds to viewing expenditures as a kind of human capital formation that is depreciated over the time period where potential economic gains are realized by this investment. Such an approach prevents at the same time from drawing a misleading picture of student households' current economic conditions by assigning current expenditures to the years in education. The same procedure could be considered for those parts of secondary education that are possibly classified as income. There are certainly a lot of detailed questions that require further discussions like for example:

- Are higher costs due to longer lasting studies related to higher economic well-being or is it preferable to refer to an average value of education years?
- Are differences in costs between academic disciplines meaningful for treatment in an extended income measure or is it preferable to refer to average costs over all disciplines?
- How long is "lifetime of the product", i.e. across how many years should education costs be amortized?
- University studies need not to be finished but can be dropped, therefore an economic effect probably can only be assumed when a degree has been achieved. Does it perhaps make more sense to include only education costs when an academic career has been completed?

Subsidized housing as transfer in kind is currently not very relevant in Germany. Public allowances are provided as monetary transfers or by investment grants (fixed capital formation).

⁴² Cf. discussion in chapter 3, there is further research necessary.

Principally it makes sense to distribute housing STIK by actual use, assessing the difference between actual rent paid and market price for a comparable housing unit. The relevance in Germany is too small to justify encompassing reflections.

The treatment of STIK for public arts and recreation facilities depends on the classification of services either corresponding to an individual or a social utility. While the choice of ascertaining rather social utility leads to a classification as collective consumption and an exclusion from distributional analysis, individual utility leads to assessment of economic advantages.

4.3.2 United States⁴³

Compulsory public education in the US from the age of 5 to 18 years (primary and secondary education) is conceived as collective consumption by national accounts and excluded from a national definition of STIK. It is not viewed as household income and is therefore excluded from the extended income definition.

The treatment of tertiary education for the US is following the same logics as for Germany. An amortization scheme for the period of human capital gains resulting from preceding investment is deemed to be most reasonable, even if there is currently no practical solution developed.

In the US, health insurance should be imputed using the insurance value approach. The value should be recorded as what the household would have paid had they purchased their own plan on the private market. As such, the person's risk should also be factored into the premium calculation. Because the probability of incurring health problems is highly dependent on a person's age, the premium should also be dependent on the person's age. Thus, an insurance value approach is preferable to a flat rate approach⁴⁴.

In case of transfers in kind for food, housing, energy costs and childcare allowances, there are means-tested access criteria to subsidized services leading to economic savings for eligible households compared to the actual market price. These transfers are therefore chosen to be appropriately distributed by actual use for the US.

Table 3 reflects the authors' opinion that there is in some STiK categories currently no conclusion possible but more research necessary. This is especially the case with Early Childhood Education in Germany, Tertiary Education and public arts and leisure services in Germany. A next step there has to be specified what kind of information is needed to implement possible estimation approaches in micro data. This issue will be discussed in chapter 5.

⁴³ These considerations are based on recommendations of Kevin Furlong from the US Bureau of Economic Analysis

⁴⁴ This conclusion for US health care deviates from the German case

Table 3: STIK categories, proposal for imputation approach

	Germany	United States
STIK category	imputation	imputation
Health Care	flat rate	Insurance value
Long term care	No income	Not relevant as STIK**
Early Childhood Education	More research (in principle actual use)	Actual use
Mandatory education*	No income	Not relevant as STIK ***
Tertiary education	Amortization / More research	Amortization / More research
Food assistance	No relevance	Actual use
Housing	Not relevant as STIK **	Actual use
Social mentoring youth	No income	Not relevant as STIK***
Public sports facilities, libraries, museums, etc.	More research (in principle actual use)	Not relevant as STIK ***

*Primary and (parts of) secondary education

**Recorded as monetary transfers in national accounts

***Recorded as collective consumption in national accounts

5. Micro data needed and available for STiK distribution in Germany and US

Including the value of certain transfers in kind into distributional analysis of household incomes requires on one hand availability of detailed income variables for conventional analysis of cash income distribution and on the other hand auxiliary variables to additionally estimate STIK distribution in one integrated survey. Model-based estimations of e.g. average disposable income per household subgroups according to national accounts concepts might use a combination of results from various data sources⁴⁵. For calculation of e.g. median income or the gini coefficient instead, there is the need for all cash income components and STIK components considered income to be summarized and analysed in an integrated data source at the level of single households.

⁴⁵ The French Statistical Office INSEE used for single income components average income values per household types from different sources multiplied with household totals from a population survey to reconstruct disposable income aggregates per household type in a national accounts methodological framework.

In table 4 there is an overview of data availability with respect to the inclusion of relevant STIK types in income distribution analysis for the US and Germany. The data requirements are derived from the proposed imputation specifications in chapter 4.

Table 4: available data to execute relevant estimates for STIK as the micro data level

STIK category	Germany	United States
Health Care	Target variable: membership insurance regime (social insurance / private insurance) available	Target variable: information on age and receipt of allowances from a given insurance regime (medicare, medicare, child health insurance) available
Early Childhood Education	Target variable: comparable market price, actual subsidy Information on age of child and daily hours in child care available No parent fees available	Target variable: comparable market price, actual subsidy Information on age of child and daily hours in child care <u>not</u> available
Tertiary education	Target variable: university degree achieved in public university Available according to specific type of studies completed	Target variable: detailed information on financial aid available
Food assistance	Not relevant	Target variable: Information on actual use available
Housing	Not relevant as STIK**	Target variable: Information on actual use Not available
Public sports facilities, libraries, museums, etc.	Target variables: frequency of use Fundamental open questions / No information on actual use in income surveys	Not relevant as STIK***

**Recorded as monetary transfers in national accounts

***Recorded as collective consumption in national accounts

6. Conclusion

While there has already been considerable effort to provide experimental calculations on income distribution including STIK, a systematic discussion on the purpose and the usefulness is still lacking. The paper tried to show with general reflections on STiK and an institutional analysis for Germany and the United States that there have to be asked further questions when the focus shifts from an aggregate national accounts perspective to the analysis of differences between households. Implementing the full SNA concept of adjusted disposable income for income distribution analysis seems questionable. The conclusion of the paper is:

- The shift from the aggregate per capita perspective of international comparisons between countries to national distribution between households implies the question of the economic advantage, that one household gains by receipt of a given transfers in kind in comparison to other households
- The identification of STIK with income character requires a classification system to be applied to national institutional properties. The preliminary proposal in the paper for a classification system is meant as a first step. Further discussion and development by the statistical community is essential.
- The possible income concept resulting from such a classification system will most probably deviate from the SNA. Uniform classification criteria will possibly lead to nationally different STIK components included or excluded from the income concept, depending on national institutional properties
- Further aspects like individual and social utility of given types of STiK on one hand and mandatory use on the other hand are additional and important aspects to take into account, when STiK shall be included into the income concept
- The currently proposed estimation techniques for STIK in micro data (actual use, group-specific insurance value) have probably to be completed for certain STIK types by additional solutions like the flat-rate / social insurance approach or the amortization / period-of-use-approach.
- Current approaches have been restricted too narrowly on technical issues and conceptual questions of economic well-being behind have been neglected: Only needs-adjustments by alternative equivalence scales try to correct distortions from a well-being perspective. Still, if perfectly implemented, this would most probably lead to the same results as excluding the respective STIK. Practically it seems instead questionable that equivalence scales are properly working.

To include all STIK types in distributional analysis follows the question of consumption of resources (“where does the money go”), not economic well-being (“how well-off are

households”). If the focus of the analysis is economic well-being and not household consumption of resources, it seems instead more appropriate to make a choice of STIK components with income character, related with an economic advantage in comparison to other households.

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