



Intergenerational Transfers in the National Transfer Accounts Framework

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Abstract

This paper describes the need for distributions of transfers on the individual level in the national accounts. We show that public and private transfers have a distinctly different behaviour, and that in

light of the current policy changes in the Netherlands, shifts from public to private transfers occur. We introduce the National Transfer Accounts framework as the analytical tool for this kind of analysis. Also we illustrate the influence of non-market production of households on the size and direction of the flows within the households.

Keywords

Intergenerational transfers, National Transfer Accounts, Reallocations

Introduction

Lately the focus on the household sector within the SNA increased, and also a shift from macro-economic key figures, such as the disposable income, to distributions within this household sector is observed. For a large part this is the result of the recommendations of Stiglitz *et al* (2009). In the Netherlands, the recommendations from this report lead to the development of the household breakdown, as presented by Bruil (2015).

The subsectoring of the household sector in the National Accounts in the breakdown of Bruil is based upon characteristics of the household or the household head as a reference person. The ESA definition of the household sector states that it *“...consists of individuals or groups of individuals as consumers and as entrepreneurs producing market goods and non-financial and financial services (market producers) provided that the production of goods and services is not by separate entities treated as quasi-corporations. It also includes individuals or groups of individuals as producers of goods and non-financial services for exclusively own final use”* (ESA, §2.118). Within this sector, the household is defined as *“a group of persons who share the same living accommodation, who pool some, or all, of their income and wealth and who consume certain types of goods and services collectively, mainly housing and food. In general, each member of a household should have some claim upon the collective resources of the household. At least some decisions affecting consumption or other economic activities must be taken for the household as a whole* (SNA 2008, §4.149). The subsectoring of the sector can be based upon the production, income, or consumption perspective, but they always consider households and not individuals. Often the reason for this is that consumption is typically decided on the household level and is difficult to allocate to individuals.

These breakdowns serve their purposes, but are not sufficient for all analytical demands. Especially demographic developments, the ageing of the society, ask for a different perspective of this household sector. We feel that these demographic changes, and the policy changes as a response, demand a breakdown of the household sector to individuals rather than households, increasing the depth of the SNA as an analytical tool. In this paper we will use the National Transfer Accounts (NTA) as the framework to analyse the household sector on this individual level. The NTA aims to analyse the generational economy, by adding age as a dimension to the SNA. A generation is better measured on the individual level than on the household level, because they often consist of more than one generation. In this paper we use the term generation for individual age groups of persons.

In the next section the National Transfer Accounts will be discussed, by explaining the purpose, methodology, and data sources. We will explicitly link this to the existing framework of the SNA, and identify new concepts that the NTA introduces. Section 3 focuses on the reallocations through public

and private transfers, and links the current policy issues to the framework. For the private transfers we include a measure of non-market production, and of intrahousehold transfers, which are not within the current scope of the SNA. Section 4 summarizes and concludes.

Methodology of National Transfer Accounts

Satellite accounting

To fully understand the implications of an aging society, there is a need for a clear understanding of age patterns of production/income, consumption and wealth in the society and the flows that reallocate resources from one generation to another. This demographic influence on economic flows is best reflected in the economic life cycle hypothesis, which offers insights into inter temporal consumption patterns (Modigliani & Brumberg, 1954). According to this hypothesis, people plan their consumption needs according to the resources available over their entire lifetime. The hypothesis uses two periods, one in which individuals work and one in which they are retired. During their working years they save money for the stage in life when they are retired, so they can smooth consumption over both stages. Inter temporal consumption smoothing can be achieved by individual savings, but also by effective use of transfers between generations, as depicted by the overlapping generations model of Samuelson (1958). Many economies have developed substantial transfer schemes, serving as a safety net when income falls. This is explicitly true for the Netherlands where the wealth in pension funds is exceptionally large compared to other countries (Bruil, Schmitz, Gebraad, & Bhageloe-Datadin, 2015).

On the macro level the System of National Accounts (SNA) is the agreed upon framework that integrates economic flows. It gives an extensive and complete overview of stocks and flows in the economy, that is comparable over time and between countries. Definitions and concepts of economic activity are in accordance with strict accounting conventions based on economic principles laid out in the SNA handbook (United Nations, European Commission, OECD, IMF, Worldbank, 2009), and the European system of accounts (Eurostat, 2013). The national accounts are constructed using many data sources, however these often lack distributional information. Therefore the SNA framework has clear limits in explaining the role of age in the economic process. To meet these challenges, the National Transfer Accounts (NTA), a system of accounts consistent with the National Accounting framework, has been developed. The National Transfer Accounts project aims to measure and analyze the macroeconomic aspects of an aging society. This results in the introduction of demographics and the economic life cycle in the national accounts. Mason and Lee have often addressed the importance of intergenerational flows, describing them in several (joint) works (Lee R. D., 1994) (Mason, 2007) (Lee, Lee, & Mason, 2006) (Lee & Mason, 2010). The work of the many NTA researchers is consolidated in their publication (Lee & Mason, 2011), which formed the basis of the first NTA manual (United Nations, 2013).

The NTA is ideally set up as a satellite of the SNA. Satellite accounts can be created to meet additional demands for information; in this way the core SNA system is not overburdened with detail. Satellite accounts can introduce new concepts for alternative types of analysis, that may deviate from the ones used in the core SNA. Two types of satellites can be distinguished (SNA 2008, §29.5-29.6). The first adds information to the framework, while keeping concepts intact. These are mainly compiled to emphasize a specific point of interest in the framework, which would be too

much for the central framework. The second type of satellite uses alternative concepts to those of the SNA, for example an expanded production definition to take into account non-productive activities, as is done in the household satellite account (United Nations, 2000) (European Communities, 2003). The NTA satellite shows elements of both types, as it adds demographics to the existing core, but also introduces new concepts. As a result of conceptual, data and analytical considerations, the used framework in this paper does not fully adhere to the NTA framework in the UN Manual (United Nations, 2013). This is explicitly mentioned when appropriate.

The additions to the core SNA are first the demographics, i.e. age patterns of economic transactions, by age and gender. Second, the choice of institutional unit differs; where the SNA chooses the household, this is the individual in the NTA. As the household often covers more than one generation (in terms of age groups) this unit is not sufficient to capture intergenerational flows. The individual approach however raises many technical issues when it comes to data availability, because many data sources still cover the household perspective. Third, new concepts are introduced, either new transactions or new balancing items. The former are for example intrahousehold transfers, which are not considered in the SNA because the institutional unit is the household; flows within that household cancel each other out and are not registered. The latter are the life cycle deficit, net transfer reallocations and net asset based reallocations. These can be considered the balancing items of the NTA framework.

Sequence of accounts

In this paper the focus is on the household sector of the SNA, including the NPISH. Only for these sectors the age dimension can logically be added. Within the core of the SNA, the Sector Accounts gives a description of the economic transactions of institutional units. An institutional unit is an economic entity that is capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities (SNA §4.2). Within the total economy, five institutional sectors are distinguished: non-financial corporations, financial corporations, the government, households, and non-profit institutions serving households, the latter two are often combined into one single sector, which we will do in this paper as well. These sectors group together similar kinds of institutional units. The sectors are distinguished, because the economic behaviour of the institutional units included therein, is fundamentally different.

The SNA sequence of accounts consists of flow accounts, accumulation accounts and balance sheets. Each account is closed by a balancing item, often an economic indicator of importance. This balancing item is the link with the next account, for which it is the opening item. The flow accounts start with the production accounts, where production and intermediate consumption lead to the value added of the total economy (GDP). The GDP of a country is the best-known economic variable, but in the past years it is recognized more and more that this single economic indicator is not sufficient to depict the state of welfare in a country, for example by the Beyond GDP initiative of the Commission of the European Communities (2009). Also Stiglitz, Sen and Fitoussi pose a number of recommendations in their influential publication (2009), among which to focus on the household sector when welfare is concerned, and to focus on distributions within this household sector.

The NTA is built around the economic life cycle. Individuals produce and consume, but this is not balanced in every phase of their lives. When they are young they consume, but they do not have the funds to pay for this because they are simply not allowed or even able to work. It is when individuals

start working that they cover their own consumption, often more than fully. The excess income is transferred or saved. In retirement these accumulated savings are used to cover for their consumption needs in that phase. The gap between consumption and savings is the life cycle deficit, an important balancing item of the NTA. The young and the elderly age groups are dependent on transfers, partly from their parents who cover their private consumption needs, but also from the government who covers public consumption, for example education or healthcare costs. This life cycle is represented by equation 1, which shows that by definition the life cycle deficit is covered by transfers from other generations or by asset income, including saving or dissaving.

$$\underbrace{C(x) - Y^L(x)}_{\text{Life cycle deficit}} = \underbrace{\tau^+(x) - \tau^-(x)}_{\text{Transfer reallocations}} + \underbrace{Y^{A^+}(x) - Y^{A^-}(x) - S(x)}_{\text{Asset based reallocations}} \quad (1)$$

The NTA sequence of accounts corresponds with equation 1, as there are three flow accounts. First the economic life cycle account juxtaposes consumption, $C(x)$, and labour income, $Y^L(x)$. The difference is the life cycle deficit (LCD). The transfer reallocations, $\tau^+(x)$ for received transfers and $\tau^-(x)$ for paid transfers, and the asset based reallocations, where $Y^{A^+}(x)$ stands for received asset income, $Y^{A^-}(x)$ for paid asset income, and $S(x)$ for savings, or more accurately in SNA terms the changes in net worth due to savings and capital transfers. In all equations the (x) stands for the age groups {0-99 years and older}. These accounts are compiled by restructuring the sequence of accounts of the System of National Accounts. In this section we construct the NTA sequence of accounts from the SNA sequence of accounts. We will further specify equation 1, and explicitly mention the link with the SNA transactions mentioned by SNA code in the figures from the previous section.

Economic lifecycle account

The economic lifecycle account juxtaposes consumption, $C(x)$, and labour income, $Y^L(x)$. Labour income is not a transaction in the SNA, but is constructed from existing transactions.

$$Y^L(x) = \underbrace{Y^C(x)}_{\text{D.1}^+} + \underbrace{\alpha Y^M(x)}_{\text{αB.3}} + Y^N(x) \quad (2)$$

It is defined as the compensation of employees, $Y^C(x)$, plus the part of mixed income that can be attributed to labour income, $\alpha Y^M(x)$, and the production of non-market activities, $Y^N(x)$. Mixed income in the SNA is the income of the self-employed. For this groups it is difficult to determine what is the return on labour inputs and the return on capital inputs. The alpha is therefore difficult to measure and arbitrarily set at 2/3 for each year in our studies. With this value of alpha we follow the NTA proposal. Also the non-market production, $Y^N(x)$, is considered here as a part of labor income. The latter is not part of the core SNA, but there are good reasons to include these in the NTA and SNA. Stiglitz *et al.* also consider it necessary to broaden the production boundary to account for changes in the society. As an example they give that “services people received from other family members in the past are now purchased on the market. This shift translates into a rise in income as measured in the national accounts and may give a false impression of a change in living standards, while it merely reflects a shift from non-market to market provision of services.” (2009, p.14). The authors argue that also leisure time changes over time, and that our notion of wealth should best include this as well, but in this paper this is not considered.

Labour income amounts to 466.7 billion euros. The compensation of employees is taken from the allocation of primary income account (318.4 billion euros), mixed income is the balancing item of the generation of income account (52.3 billion euros for households plus 0.2 billion euros for NPISH) and multiplied with the 2/3 factor. The non-market household production is not part of the core SNA, therefor a macro control is estimated from the micro data (113.3 billion euros).

$$C(x) = \underbrace{C^F(x)}_{P.31} + \underbrace{C^{GI}(x)}_{D.63^+} - \tau^{VAT} + C^N(x) \quad (3)$$

Consumption adds up to 455.2 billion euros. This is the result of private and individualized government consumption of households and NPISH (402.9 billion euros, taken from the use of adjusted disposable income account. From this the product taxes are deducted, these amount to 61.0 billion euros, as is depicted in the allocation of primary income account of the government. The consumption of non-market household production equals the production on the macro level, i.e. 113.3 billion euros.

$$C^N = Y^N \quad (4)$$

Transfer reallocations account

The transfer reallocations account consists of inflows and outflows. Most transfers come from the secondary distribution of income account. The inflows consist of received social benefits, social transfers in kind, other current transfers and intrahousehold transfers. Also the non-market production and consumption are considered to be transferred to others. The social transfers in kind are taken from the redistribution of income in kind account. These equal the individualized government consumption in the economic life cycle account for each age group. The intrahousehold transfers have no SNA counterpart and are therefor estimated from the micro data. Transfer inflows amount to 421.0 billion euros (Social benefits equal 117.2 billion euros, social transfers in kind 114.2 billion euros, other current transfers 15.2 billion euros for households + 9.0 billion euros for NPISH, and 52.1 billion euros for intrahousehold transfers).

$$\tau^+(x) = \underbrace{\tau^{SB}(x)}_{D.62^+} + \underbrace{\tau^{SK}(x)}_{D.63^+} + \underbrace{\tau^{O^+}(x)}_{D.7^+} + \tau^{I^+}(x) + \tau^{N^+}(x) \quad (5)$$

$$\tau^{SK}(x) = C^{GI}(x) \quad (6)$$

The transfer outflows are the taxes on income and wealth (51.0 billion euros), the product taxes which are corrected for in the economic lifecycle account (61.0 billion euros), the social contributions (163.2 billion euros), other current transfers (20.0 + 3.9 billion euros), and the intrahousehold transfers. The outflows of the latter equal the inflows on the macro level, which equals 52.1 billion euros.

$$\tau^-(x) = \underbrace{\tau^T(x)}_{D.5^-} + \underbrace{\tau^{SC}(x)}_{D.61^-} + \underbrace{\tau^{O^-}(x)}_{D.7^-} + \tau^{I^-}(x) + \tau^{N^-}(x) + \tau^{VAT} \quad (7)$$

$$\tau^{I^-} = \tau^{I^+} \quad (8)$$

Total transfer outflows amount to 464.6 billion euros. This brings net transfer reallocations to minus 43.6 billion euros. As opposed to the NTA manual, private pension contributions and benefits are included in these transfer reallocation accounts. In the asset based reallocation accounts the savings component is included, which is the adjustment item for the change in pension entitlements.

Subaccounts

The NTA totals are used as the benchmark, or macro controls. For the transfer reallocation accounts a further breakdown by sector is made. The identified sectors are: (i) the private sector, (ii) the public sector, and (iii) the rest of the world. The macro controls for these sub-accounts are constructed using the from-who-to-whom matrices, which are used to integrate the sector accounts of the SNA. In the Netherlands, these matrices are used to construct the sector accounts, therefore they do not have to be derived from the macro controls as suggested in the NTA manual (United Nations, 2013, pp. 86, 187).

Figure 1: From who-to-whom matrix for dividend flows, the Netherlands, 2012

	S11	S12	S13	S14	S15	S2	Total means
Financial inst.	4,190	630	0	0	0	31,575	36,395
Non-financial inst.	4,615	2,983	0	0	0	100,785	108,383
Government	3,459	1,004	0	0	0	0	4,463
Households	6,348	280	0	0	0	2,443	9,071
NPISh	7	27	0	0	0	0	34
Rest of the World	12,793	102,001	0	0	0	0	114,794
Total uses	31,412	106,925	0	0	0	134,803	273,140

The total uses and total means correspond with the values in the allocation of primary income account. The NTA macro controls are constructed using this matrix; in total six macro controls are derived, for each sector identified (3), and for inflow and outflow (2). In the example of dividends, outflows are zero for all three sectors, because household do not pay these. The inflows from the government are zero as well, so there are only flows from the private sector ($6,348 + 7 + 280 + 27 = 6,662$) and from abroad (2,443).

The asset based reallocations account is not further specified, because when only the households sector is considered, the public subaccount is close to zero. Also, in the remainder of this paper the flows to and from the ROW are considered private flows. A more accurate allocation is not possible as a rule. It is very well possible however that flows go to or come from a foreign public sector (taxes, social security), but these are generally small and neglected here.

Asset based reallocations account

$$Y^{A+}(x) = \underbrace{Y^{OS}(x)}_{B.2} + \underbrace{(1-\alpha)Y^M(x)}_{(1-\alpha)B.3} + \underbrace{Y^{P+}(x)}_{D.4^+} + \underbrace{S^{C+}(x)}_{D.8^+} + \underbrace{\tau^{K+}(x)}_{D.9^+} + \quad (9)$$

$$Y^{A-}(x) = \underbrace{Y^{P-}(x)}_{D.4^-} + \underbrace{\tau^{K-}(x)}_{D.9^-} + \underbrace{I^-(x)}_{P.51C^-} \quad (10)$$

Capital transfers are defined according to the SNA, which means they only occur between households. The NTA manual considers capital transfers to occur within the household as well, when the designation of the household head changes (United Nations, 2013, p. 51). We take a different approach here to comply with the SNA. Capital transfers between households do occur, they differ from current transfers in the sense that they require the acquisition or disposal of an asset. These capital transfers are recorded in the accumulation accounts of the SNA and link the current accounts with the balance sheets. Bequests are a part of these capital transfers, but these also include

investment grants for self-employed and taxes paid over received capital transfers. Total received asset income equals 93.9 billion euros, and total paid assets income is 40.7 billion euros. Savings are determined as the residual of the life cycle deficit minus the net transfers and the net asset based reallocations. These amount to 21.1 billion euros, which corresponds with the SNA balancing item changes in net worth due to savings and capital transfers. The new concepts of intrahousehold flows and household non-market production do not influence the total savings of households.

Figure 2: NTA sequence of accounts, values in million euros, 2012

Economic Lifecycle Account		S14	S15	S1A
Code	Transactions and balancing items	Households	NPISHs	Households including NPISH
YL	Labour income	466 540	156	466 696
YC	Compensation of employees	318 386		318 386
α YM	Labour share of Mixed Income	34 845	156	35 001
YN	Non-market household production	113 309		113 309
C	Consumption	449 586	5 567	455 153
CF	Private consumption	283 062	5 567	288 629
CGI	Individualized government consumption	114 233		114 233
τ VAT	Value added taxes	-61 018		-61 018
CN	Consumption of non market production	113 309		113 309
LCD	Life cycle deficit	-16 954	5 411	-11 543
Transfer Reallocations Account		S14	S15	S1A
Code	Transactions and balancing items			
τ +	Transfer inflows	412 074	8 971	421 045
τ SB	Social benefits	117 226		117 226
τ SK	Social transfers in kind	114 233		114 233
τ O+	Other transfers	15 171	8 971	24 142
τ I+	Intrahousehold transfers	52 135		52 135
τ N+	Consumption of non market hh production	113 309		113 309
τ -	Transfer outflows	460 716	3 922	464 638
τ T	Taxes	50 981		50 981
τ SC	Social contributions	163 235		163 235
τ O-	Other transfers	20 038	3 922	23 960
τ I-	Intrahousehold transfers	52 135		52 135
τ N-	Transfer of non-market hh production	113 309		113 309
τ VAT	Value added taxes	61 018		61 018
τ	Net ransfers	-48 642	5 049	-43 593
Asset Based Reallocations Account		S14	S15	S1A
Code	Transactions and balancing items			
YA+	Asset reallocations inflows	92 778	1 096	93 874
YOS	Operating surplus	778		778
$(1-\alpha)$ YM	Capital share of Mixed Income	17 423	78	17 501
YP+	Property income	47 207	213	47 420
SC+	Adjustment for pension entitlements	20 118		20 118
τ K+	Capital transfers	7 252	805	8 057
YA-	Asset reallocations outflows	40 494	236	40 730
YP-	Property income	8 571	2	8 573
τ K-	Capital transfers	7 060		7 060
I-	Depreciation	24 863	234	25 097
YA	Net Asset Income	52 284	860	53 144
Savings		S14	S15	S1A
Code	Balancing items			
LCD	Life cycle deficit	-16 954	5 411	-11 543
τ	Net ransfers	-48 642	5 049	-43 593
YA	Net Asset Income	52 284	860	53 144
S	Savings	20 596	498	21 094

Data sources

The National Transfer Accounts are constructed using many data sources. The links with the SNA, made in the previous section, provide the macro totals. On the most detailed level possible, the age profiles are added to these NTA variables. The aggregate sum of the age profiles must equal the macro control. Apart from the national accounts, the data sources used in this paper are (i) the Income Panel Survey (IPS), (ii) the Budget Survey (BS), (iii) the Pension Claims Statistics (PCS), (iv) education data on average costs by education type, and on enrollment by age group, (v) health care statistics of the National Institute for Public Health and the Environment (RIVM) on average health care expenditures by age and gender, and (vi) the Time Use Survey. Apart from the health care statistics the data sources are all available at Statistics Netherlands.

The Income Panel Survey (IPS) is the most important data source used to construct the age profiles. This is an annual survey, which covers approximately 200,000 individuals and 92,000 households. It is a sample survey taken from administrative records from multiple registers (including tax data). The IPS consists of a large selection of variables covering labor income transactions, profits from self-employment, property income, as well as paid and received transfers (CBS, 2011). This information is available both on the individual and the household level, but it should be noted that some variables are imputed instead of measured and are allocated to one person in the household. Also, for tax data, it could be that because of fiscal rules (property) income components are relocated between household members when they file their tax report. The data are adjusted for this, because this disturbs our results. Most importantly the individual estimates would be gender biased, as the imputations are made for the household head. Who is the household head is decided by the household composition and the level of income. It turns out that the household head is often male. We made corrections on the survey data by allocating joint income evenly over the adult couple in the household. This was done for property income, income from owner occupied dwellings, and taxes. The totals for the variables did not change, only the allocation over the (adult) household members. For members other than the adult couple no adjustments were made.

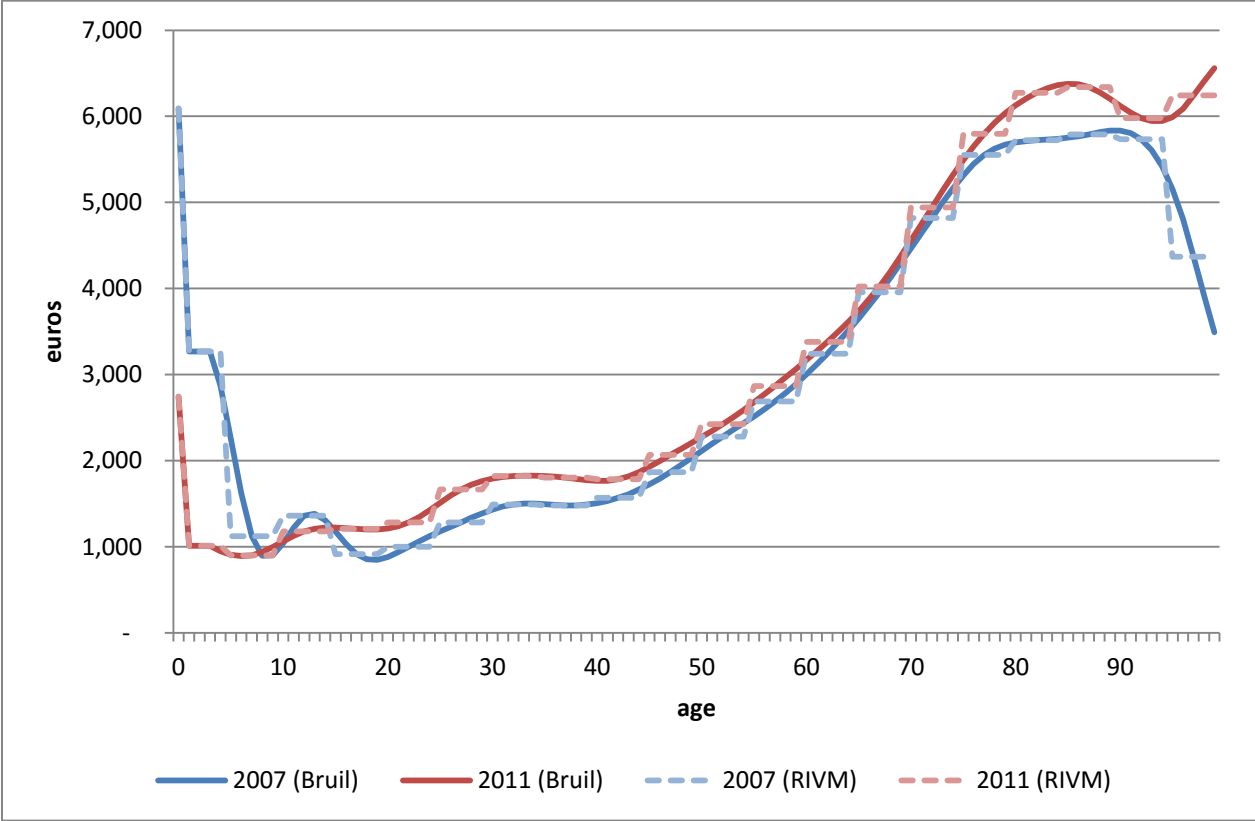
For the age profiles of individual consumption the Household Budget Survey (HBS) is used. This source gives an average value for consumption on the total and on a more detailed level for a number of household characteristics. This source covers only the households living in private dwellings, and not the households living in prisons, retirement homes, or who stay in hospitals for a long time. The consumption expenditures are only observed on the household level, and allocated over the household members using equivalence scales. Until 2012 this was an annual cross-sectional survey of around 3,600 individuals and 1,500 households. From 2015 onwards the survey will be held once every five years, and the number of participating households will increase to around 15,000. In the transition phase surveys are held in 2012 and 2013, but with respectively 6,000, and 5,000 households (CBS, 2015). For 2011 no survey is available, but estimates are obtained by linear interpolation between 2010 and 2012.

The Pension Claims Statistics covers the Dutch population between 15 years and 65 years old. It is a sample survey that is balanced with the total pension claims known by the Dutch Central Bank (DNB). The missing share of pension claims is imputed using a stratification of, among other variables, gender and age. The result is an integral register of all individuals with a pension claims, within the mentioned ages (CBS, 2010). The wealth accounts are outside the scope of this paper, but the data of

the pension claims statistics (PCS) is also used to estimate the income flows associated with the pension entitlements.

The social transfers in kind consist for the largest part of health care costs and education expenditures. These are paid for by the government but individuals profit from them therefore these are considered transfers in kind. For these kind of transfers almost no data is available. For health care we use data from the National Institute for Public Health and the Environment (RIVM) for the Health care Insurance Act (ZVW) and the Exceptional Medical Expenses Act (AWBZ). For both acts, the RIVM offers average expenditure by age and gender for 21 age groups (RIVM, 2011). These age groups are recalculated using a cubic spline function into 100 age groups. Data is available for 2003, 2005, 2007, and 2011. For the years in between we use a linear interpolation of 2007 and 2011, for 2012 we used the age profile of 2011. Other social transfers in kind include housing subsidies or general welfare, these are covered by the income panel survey.

Figure 3: Health care expenditures by age group and for 21 age classes, the Netherlands, 2007 and 2011



Education data consists of total expenditures and number of children by education type (primary, secondary or tertiary education). To each child an average amount is allocated given the chance that it is enrolled. Population data further consists of the published number of individuals by age and gender in 100 age groups.

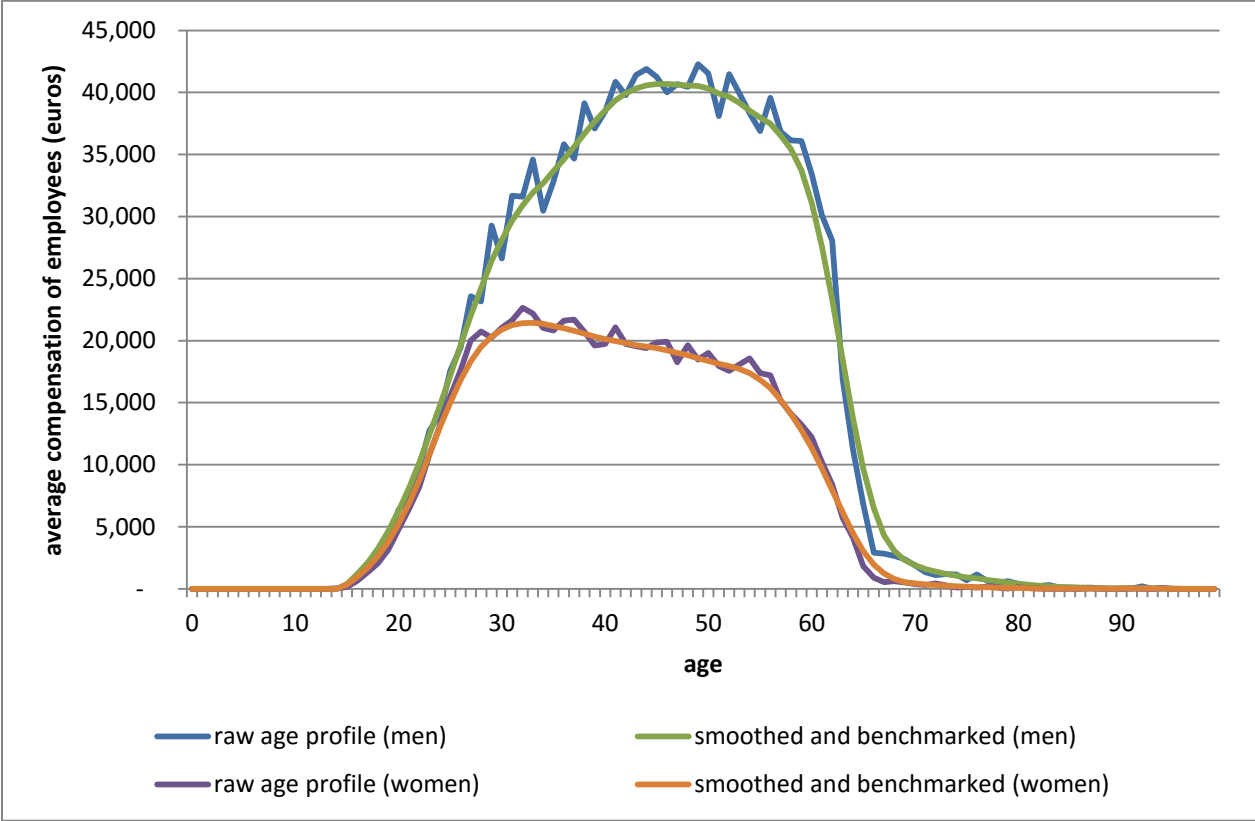
Finally the time use survey is used to construct estimates for the non-market household production and consumption. The last available time use survey is from 2003, which is very outdated. In this survey a random sample of around 5,000 people aged 12 years and older were asked how they had spent the previous day and in what activities they engaged. This was done every two years in the context of a larger survey (permanent survey on quality of life), but the time use component was

removed in 2003. The variables taken from this survey are limited to seven types of activities: (i) care for and playing with own children, (ii) care for other family members, (iii) grocery shopping, (iv) housework, (v) preparing food and drinks (vi) care for pets, (vii) maintenance work around the house. The time use survey gives minutes spent per day on several non-market activities by gender, but only for broad age groups. These age groups are recalculated into age specific patterns. The minutes per day are recalculated into hours per year and multiplied by the minimum wage for 2012, giving and estimate for each age group of a monetary value of their household non-market productive activities.

Age profiles

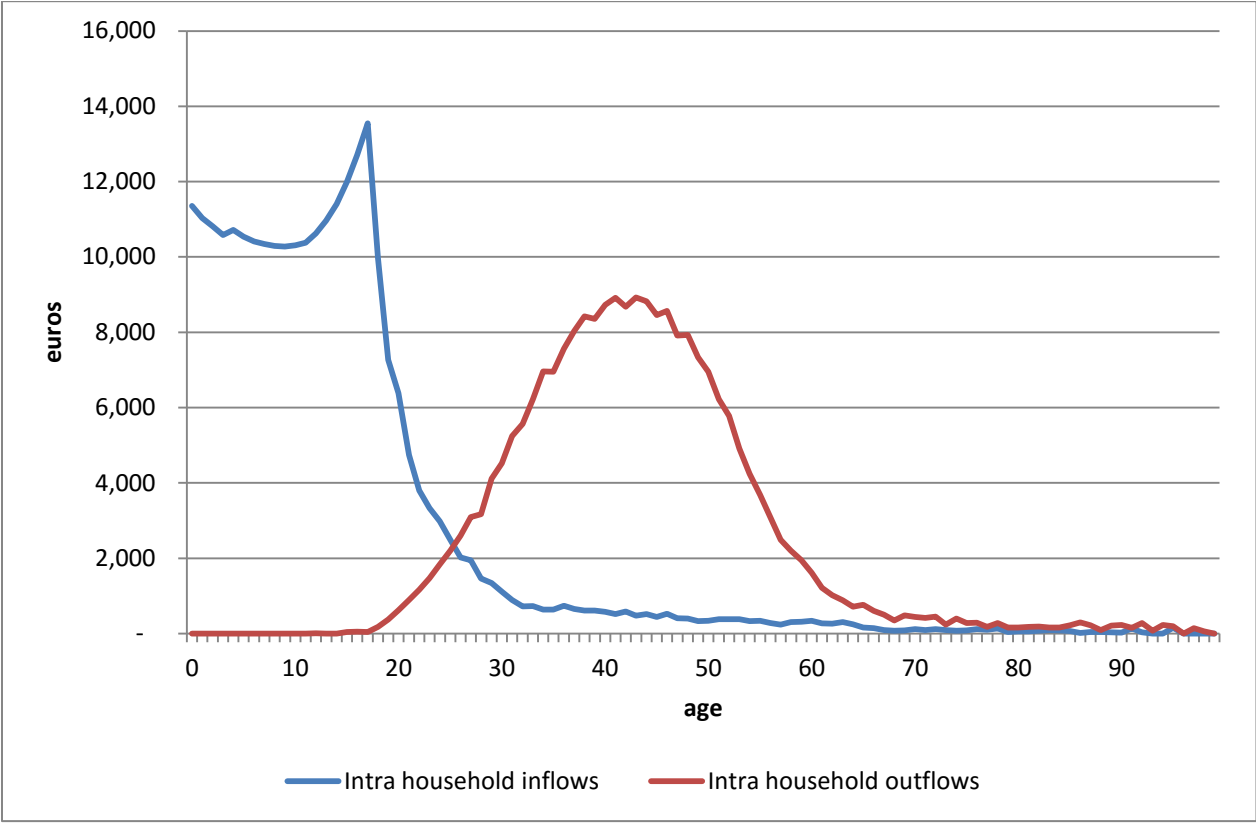
The general approach to construct NTA age profiles is similar to the approach taken by Bruil (2015), and the OECD Expert Group (Fesseau & Mattonetti, 2013a) (Fesseau & Mattonetti, 2013b) when the household sector breakdown is constructed. Because the unit of observation is the individual, additional steps are needed. In the micro data sources the variables are identified that can best explain the NTA transactions. These (combinations of) variables result in raw age profiles, which are then smoothed to eliminate errors (Friedman, 1984). The smoothed age profiles are benchmarked to the NTA control variables constructed above. This approach implies that any difference in levels between the micro data and the NTA macro controls is distributed proportionally over the age groups. This straightforward approach works for the NTA transactions that can be linked to a micro variable, but when distributional information is lacking, a more elaborate approach is needed. This holds for the new introduced concepts of intra household transfers, and non-market production, but also the SNA capital transfers, for which no micro data are available.

Figure 4: Balancing age profiles of compensation of employees for men and women, the Netherlands, 2012



The intra household transfers are calculated as the flows from parents to their children to cover for their life cycle deficit. If the intra household flows were not considered, children would accumulate a large debt, because they can't yet pay for their consumption needs. The intra household flows result in zero savings or dissavings for children. We use a more focused scope than the NTA manual, where the head of the household covers the deficit of other household members. We do not use their notion of the household head, but assume that assets are owned jointly by the adult partners in a household, who provide for their children and save or dissave themselves.¹ We construct the age profiles by assuming that the life cycle deficit of a child is completely covered by the parents, even if the surplus of the parent is not sufficient for this. The deficits of other household members are not covered by intra household transfers in our approach, each adult saves or dissaves. For the Netherlands this approach is justifiable because women often work and therefore can provide intra-household transfers as well. This approach is an approximation though, because measurement of these flows simply does not exist, and as a results comes with its respective uncertainties.

Figure 5: Intra household inflows and outflows, the Netherlands, 2012



The profile for household non-market production and consumption were estimated using a time use survey. The scope is limited to seven types of activities: (i) care for and playing with own children, (ii) care for other family members, (iii) grocery shopping, (iv) housework, (v) preparing food and drinks (vi) care for pets, (vii) maintenance work around the house. These are all productive activities that are consumed within the household as well. We also consider caretaking for others outside the

¹ The NTA manual assumes that assets, and income from assets, are owned by the head of the household. Intra household transfers flow only from the head of the household to the other household members. In our paper we do not follow this assumption, because it would create a gender bias, as most often the head of the household is male.

household, where it is our assumption that this is caretaking that flows to an older generation. Apart from this caretaking, we do not include the household work that is consumed outside the household (for example volunteer work).

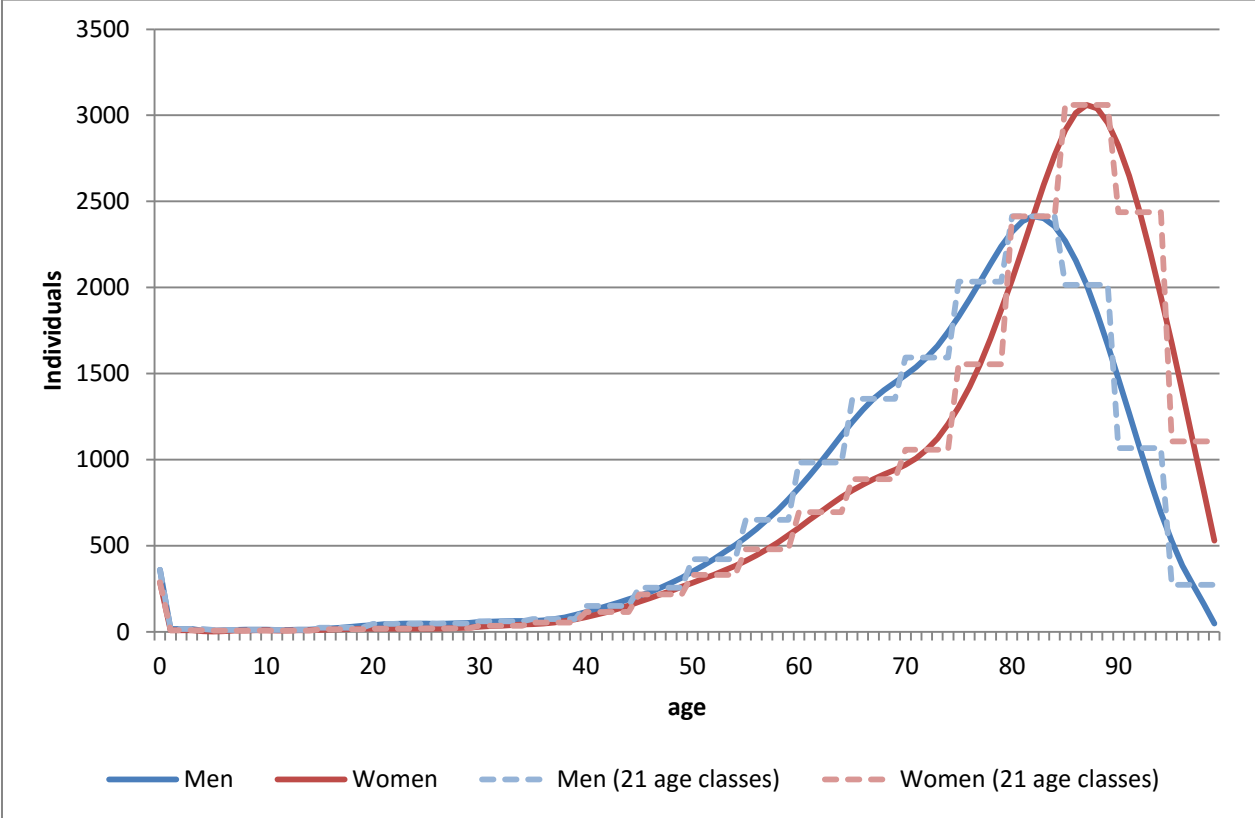
The European Commission proposed a methodology for a household satellite account to measure these non-market activities (European Communities, 2003). This paper focuses on the expansion of the SNA production boundary to include all non-market household production, and considers the influence on the different SNA accounts. For the NTA satellite production and consumption are both allocated in the economic life cycle account, and so far methodological choices have not yet been tested extensively. Several choices can be made, for example with respect to the valuation of the work. Time spent on household non-market production is commonly valued by one of three possible methods; (i) opportunity costs, (ii) replacement cost, i.e. the average wage of similar work on the labor market, and (iii) minimum wage. In this paper we chose the latter. We make no correction for multitasking.

The time use survey gives minutes spent per day on the selected non-market activities by gender, but only for broad age groups. These age groups are recalculated into age specific patterns. The minutes per day are recalculated into hours per year and multiplied by the minimum wage for 2012. This gives an estimate of the monetary value of the household non-market productive activities. These are only estimates of production, we also need to know who consumes this. We impute these production values for each stratum of age and gender in a register of all individuals in the Netherlands. This register was built using data of the municipalities and includes characteristics of the individual, like age and gender, but also the household to which one belongs. By aggregating over all household members, total household non-market production is estimated. For most included activities by definition the entire non-market production is also consumed within the same household. The consumption of non-market activities is allocated to individuals using simple rules. Childcare is only consumed by children (and divided evenly over all children in the household), care for other family members is evenly divided over all adults. Grocery shopping and the other household chores identified are consumed evenly by all household members. For caretaking of other people outside the household it is our assumption that this flows to an older generation, where the generation is set to 30 years. This can not further be specified to gender, because we do not have a direct link between producers and consumers.

Most research on capital flows within the NTA focuses on bequests, however bequests are only part of the capital transfers in the SNA. Capital transfers in the SNA equal investment grants, taxes paid on capital transfers and 'other capital transfers'. The latter includes bequests, and for simplicity the entire transaction is regarded as such. Bequests may flow from one household to another, but may also flow abroad or to other institutional sectors (including the government). No direct information is available on the age distribution of these flows. We estimate these upon the number of people who died per age group and the average amount of individual wealth in that age group. The number of people who died is known for 21 age groups, this is recalculated into 100 age group 9. Combined with age profile for average wealth (excluding pension entitlements as these can not be bequeathed) the outflow of bequests is estimated. This is done for men and women separately. The wealth accounts are not further discussed in this paper.

We assume that the outflow of one age group is the inflow of the age group one generation back, again with a generation set to 30 years. So a 78 year-old women leaves a bequest to a 48 year-old person. The outflow can be specified to gender, but the inflow can't, and as a result men and women have the same age profile. Taxes paid to the government are paid proportionally by people receiving a bequest.

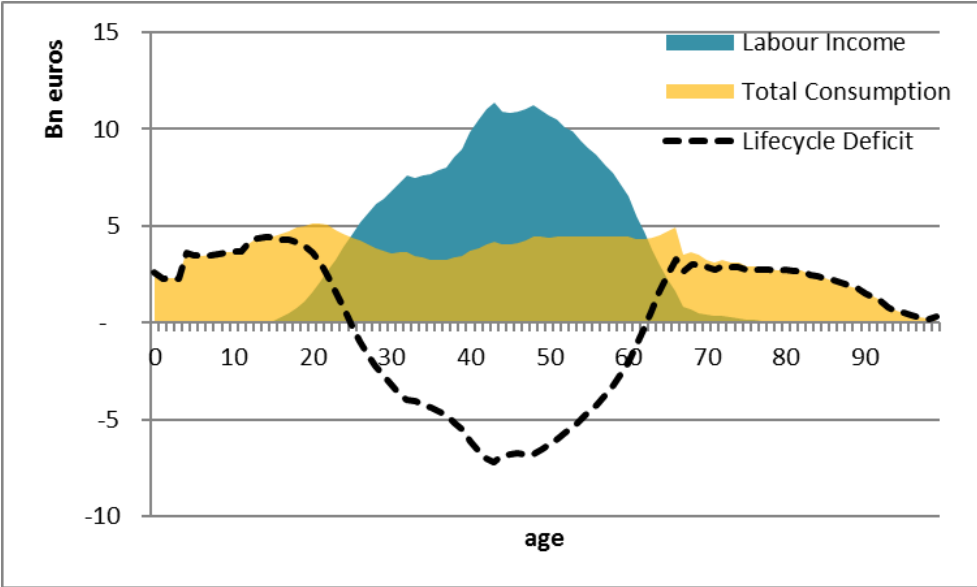
Figure 6: Number of deceased individuals by age group and in 21 age classes, 2012



Intergenerational Transfers

In the generational economy every generation (age group) has its own economic behavior, whether it is in producing, consuming, or saving. These differences lead to the shifting of economic resources from one generation to another. In order to do this, there are mechanisms in place, and implicit or explicit social contracts exist (Lee & Mason, 2011, p. 7). The economic behaviour comes forward in the lifecycle account. The life cycle deficit is positive for the young and the elderly, as expected, simply because they lack labour income. The aggregate deficit for the Netherlands in 2012 is negative, meaning that the labour income for the entire population is larger than consumption. The economic lifecycle account clearly shows the three phases in life, two in which labour income is insufficient to cover the consumption needs. The people younger than 25 do not have sufficient labour income to cover their total consumption. During the working years of the population labour income exceeds consumption and for individuals aged 62 and older it is again the other way around. A negative life cycle deficit (LCD) means in fact that there is a surplus of labour income over consumption expenditures.

Figure 7: Economic lifecycle account, aggregate values (2012)



The LCD is negative for the Netherlands as a whole, which means we have a higher labour income than the amount we consume. A comparison of the LCD between 2008 and 2012 shows that the pattern is similar, but that there are some interesting differences. This is best visible when it is broken down by gender. Two differences come forward, first the LCD of the female working population was more negative in 2012, as a result of the increasing labour participation rates for women. Second, the LCD for the elderly became more positive. This was because healthcare costs rose for those age groups. The age profiles in the chart below are normalized to the labour income of men aged 30-49 to make both years more comparable. The foreseen reduction in the exceptional medical expenses act should result in an opposite movement of that between 2008 and 2012. Costs for the elderly are expected to become lower, which will result in a lower LCD of those age groups (CPB, 2014). But this is only if these healthcare costs are not replaced by non-market production, similar to the example of Stiglitz *et al.* that a shift from market to non-market activities gives a wrong impression of the change in living standards (2009).

Figure 8: Life cycle deficit by gender for 2008 and 2012 (normalised to labour income of men aged 30-49 years old)

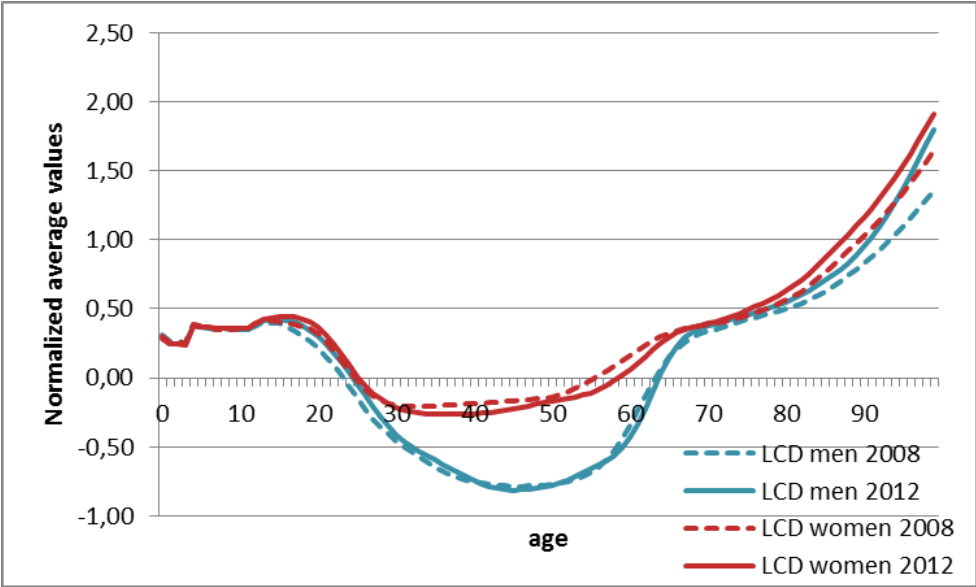
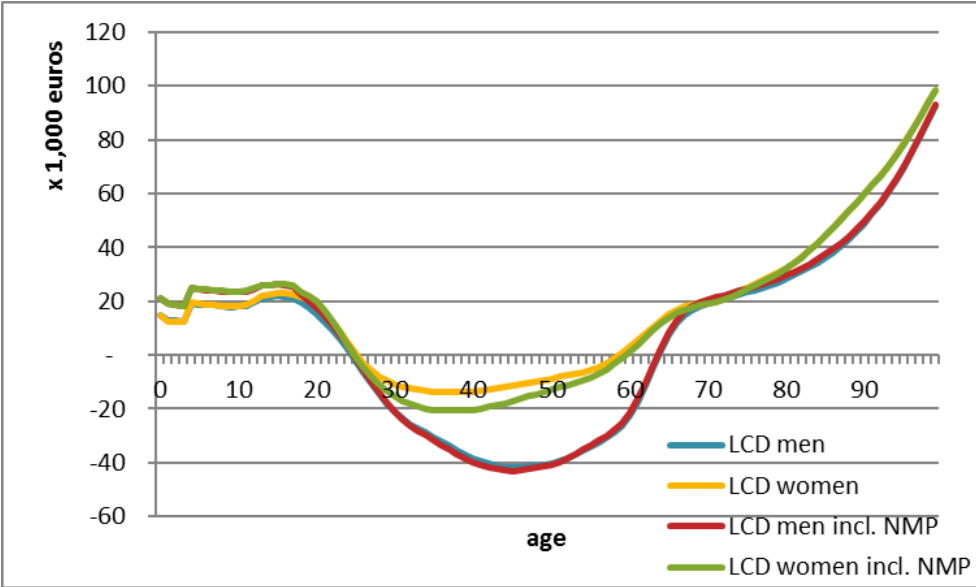


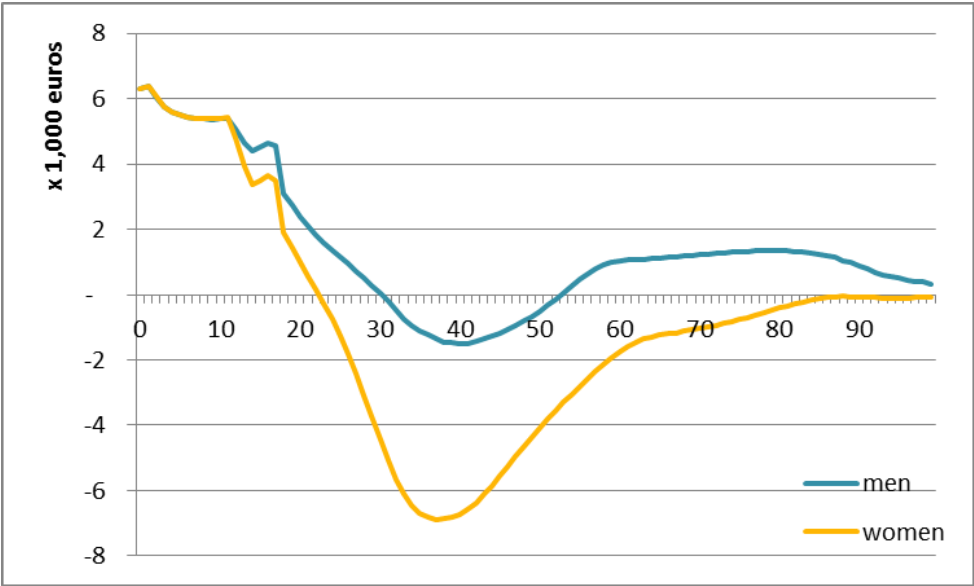
Figure 9: Lifecycle deficit for 2012 by gender, average values per age group



We argue that the current production boundary of the SNA underestimates the true size of the transfers. We see this here already in the LCD and again in the transfer reallocations account. If we include the household non-market production, and consumption of this production, in labour income and total consumption, LCD is affected mainly for the young and women in the working ages. The young are dependent on caretaking mainly and benefit from cooking and cleaning more than they contribute. The very youngest produce nothing, only consume, but from 12 years onwards they start to contribute as well. The impact on the age profile for men is, apart for the young, not impacted much. They produce about a much as they consume. Women however clearly produce more, which results in a more negative deficit for women aged over 23 years old. A shift from market production to non-market production, as expected in the case of the exceptional medical expenses act, is expected to have opposite effects in this account. The public consumption would be lower, but this is (partly) offset by the increase of non-market consumption. Important in this respect is the valuation

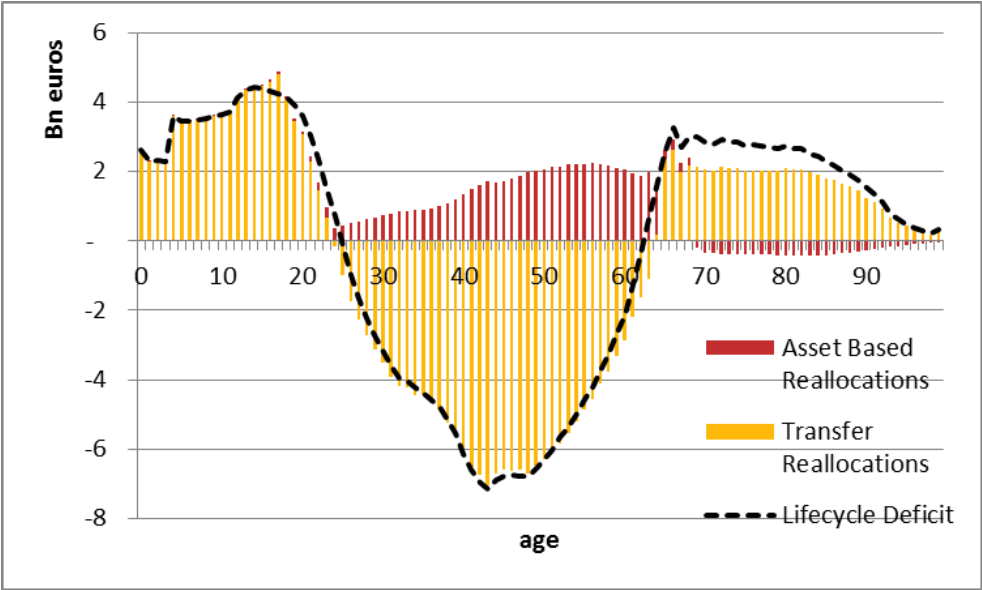
method, the professionals are replaced by family members which are valued against minimum wage currently. The changes that the government makes do not mean that these costs disappear, they merely shift. In case of the Exceptional Medical Expenses act it is a shift from the public to the private sphere, as a result of which the Dutch society is changing from a welfare state to a “participatory society” as said by King Willem-Alexander of the Netherlands in his Speech from the Throne (2013). In the current SNA this shift can not be accounted for because the production boundary does not comprise the non-market household production.

Figure 10: Change in LCD as a result of including non-market household production (2012)



By definition (equation 1), the LCD of each generation has to be covered either by transfers (public or private) or by asset based reallocations (including savings). Figure 11 shows that for the Netherlands in 2012, transfers are by far the most important in this respect. The difference between the two dependent phases is that the retired people also use their asset income and dissavings to cover their deficit. Asset income is of minor influence in the reallocation process in the early life stages, because the young are not allowed to work and hence it is not possible to accumulate wealth. The only asset income here is the capital transfers which end up in savings. After age 15 asset income starts to play a role; labour income is earned and intrahousehold transfers are less needed. In somewhat older age groups individuals start buying houses for which they need to take up mortgage loans, but they derive asset income from their dwelling as well. The asset depreciates however, which is also taken into account here. The age groups until 68 years old have positive asset based reallocations.

Figure 11: aggregate LCD and reallocation mechanism by age group (2012), excluding non-market production.

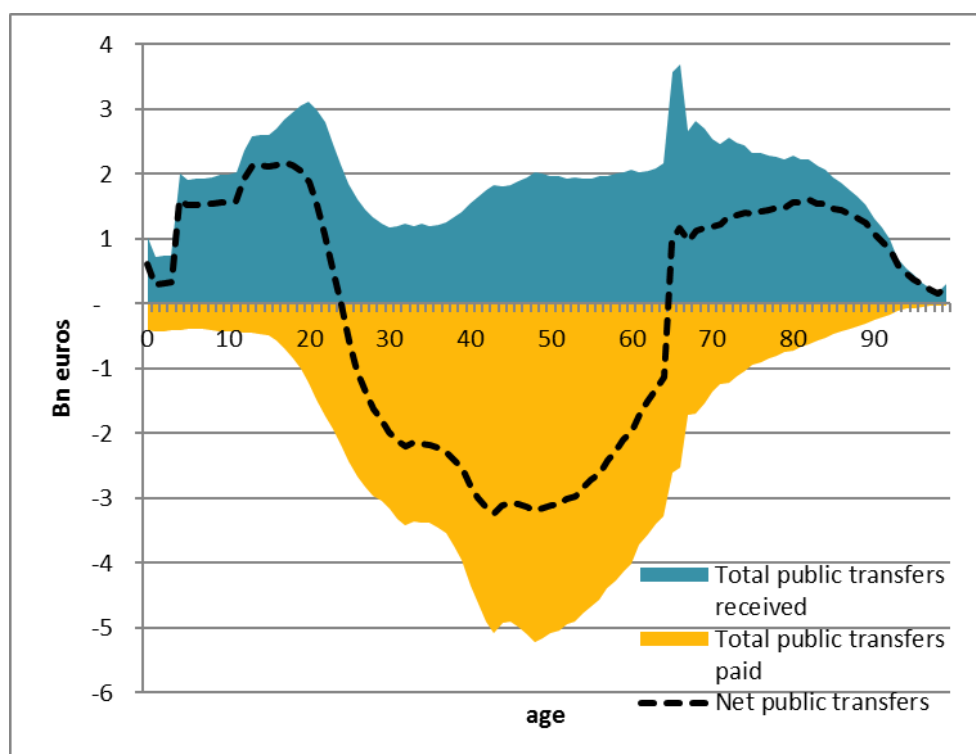


Where transfer reallocations and asset based income is not sufficient (or more than sufficient) to cover the LCD, this residual is either taken from savings, or added to savings. Figure 11 shows that total transfers received for the young (with a deficit) is larger than it is than for the elderly. In an ageing society, the transfers flowing to the elderly will increase, but the relative importance of the transfers to the young decreases.

Public transfer sustainability

The transfer reallocations are large in the Netherlands, partly because there is a large public welfare system in place. Public and private transfers have different characteristics, but the lifecycle pattern observed in the LCD is visible here as well. The young receive relatively high amounts of social transfers in kind due to their education needs. The elderly in their turn have higher healthcare costs. After age 65, residents are entitled to an old age benefit, and the contribution to social insurance schemes stops. The paid contribution consist of taxes on income, wealth and products. The latter is allocated to the individual consuming the good or service, therefor the age pattern of these taxes equal the age patterns of private consumption. As a result, even the youngest children pay taxes, but these are covered by intrahousehold transfers. On balance, from age 24 until 64, individuals pay more in transfers than they received. Detialed graphs of the paid and receveid transfer are shown in appendix B.

Figure 12: Net public transfers (2012) aggregate values



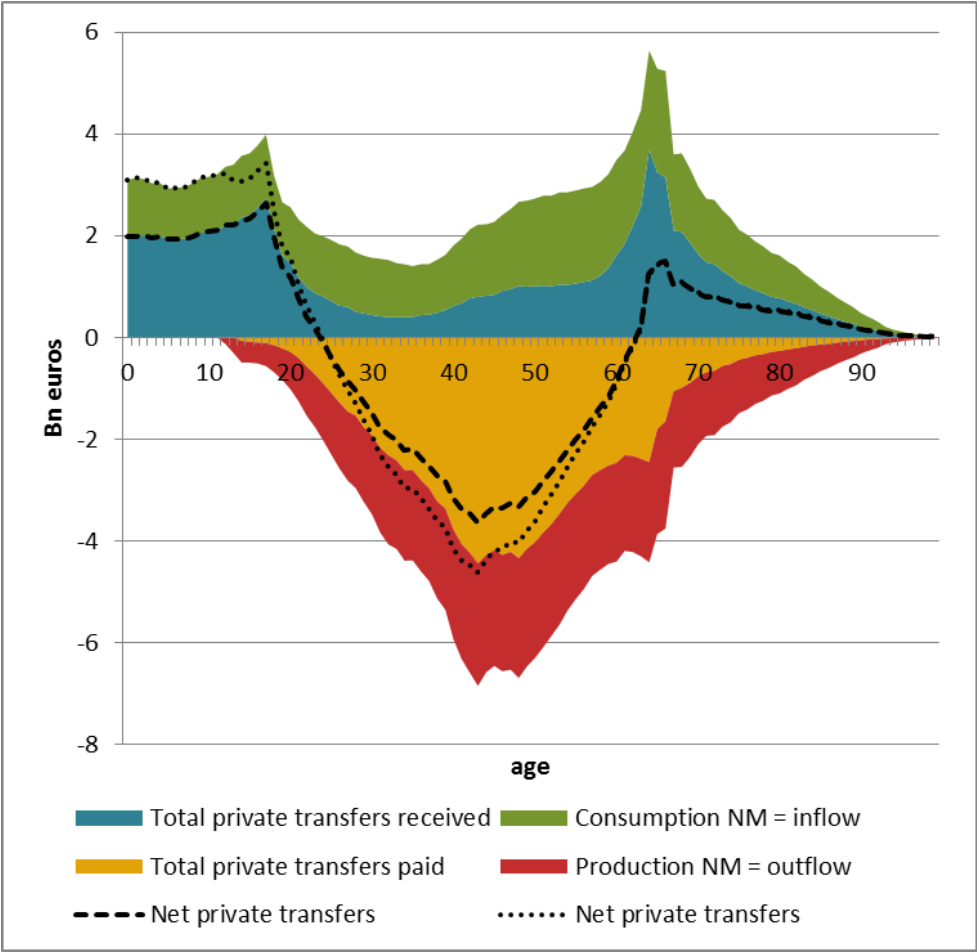
These public transfer reallocations are under pressure because of demographic changes. The Netherlands faces a graying population, like most developed societies, due to a risen life expectancy and lower birth rates. When demographics of a country change, this will impact the economy through the age patterns of economic flows depicted here. An increasing share of elderly threatens the sustainability of Dutch social security, as more and more people benefit and less and less people contribute to it. To face these threats, the retirement age is already to be increased gradually from 65 years old in 2012 to 67 years in 2023, after which it is to rise along with the life expectancy (Wet verhoging AOW- en pensioenrichtleeftijd, 2012). More changes in the pension system are being debated, among which the level and indexation of pension benefits, the intergenerational fairness of the scheme, and increasing the freedom of choice of the participants (SZW, 2015). Also in long-term health care changes are made partly driven by the fact that most of these costs are made by the elderly. From 2015 onwards the Exceptional Medical Expenses Act (AWBZ) is replaced by the Chronic Care Act (WLZ) which puts the incentives to function more efficient on a more decentralized level (CPB & SCP, 2015). The most recent sustainability study of the Netherlands Bureau of Economic policy Analysis, concludes that the sustainability of the government budget has improved in recent years, mainly due to these changes (CPB, 2014). The methodology of generational accounting has similar characteristics with the NTA, as they both depend on demographic details. A big difference is that the NTA shows cross-sections of the population, and the age profiles derived here are not necessarily the trajectory an individual follows, due to cohort effects.

Private transfers importance

The NTA framework adds the intrahousehold transfers. These flow, by the definition used here, from parents to their children. On the macro level it is estimated that this equals 52.1 billion euros. This is to be considered a lower bound estimated, because transfers between adults are possible as well, but not taken into account in our methodology. The production of non-market household activities

amounts to 113.3 billion euros. This is also a conservative estimate, because the scope of activities is limited and the minimum wage is used to monetize the minutes spent. Our claim that total intergenerational transfers are underestimated by the system of national accounts is confirmed by the size of these transfers. Together intrahousehold transfers and non-market household production amount to 35.9% of total (public + private) transfer outflows, and 40.1% of total transfer inflows. On the macro level these flows might cancel each other out, but given the changes in distribution they are essential to know. These flows are expected to become even more important, given the current policy to improve the sustainability of public flows. As a result, for analytical purposes the inclusion of these flows is necessary as well.

Figure 13: Private transfer reallocations and non-market activities (2012)



Part of the private transfers is the other current transfers, which is in fact a core SNA transaction. Ideally this would cover income flows between household as well, for example parents covering (part of the) expenses of their children who are not living with them, but who form their own household. For example students who live on their own are likely to receive some kind of benefit from their parents, but due to the nature of these flows they are difficult to measure. These flows are expected to underestimate the total flows between households.

The largest part of private transfer inflows are the non-SNA transfers; the intrahousehold transfers and the consumption of non-market production. The private transfers that are part of the SNA mainly are the pension benefits of private (work-related) pension schemes. These transfers are received from pension funds and insurers that hold the entitlements on behalf of the households.

Not taking into account the addition of the new NTA concepts, the private transfer outflows mainly consist of pension contributions. These are also allocated to retired households because of the additional pension contributions households pay as a result of the property income they derive on their entitlements. This property income is not actually received but assumed to be paid back as a contribution. The distribution of these additional pension contributions is based upon the distribution of the entitlements.

Figure 14: Net private transfers by gender (2012)

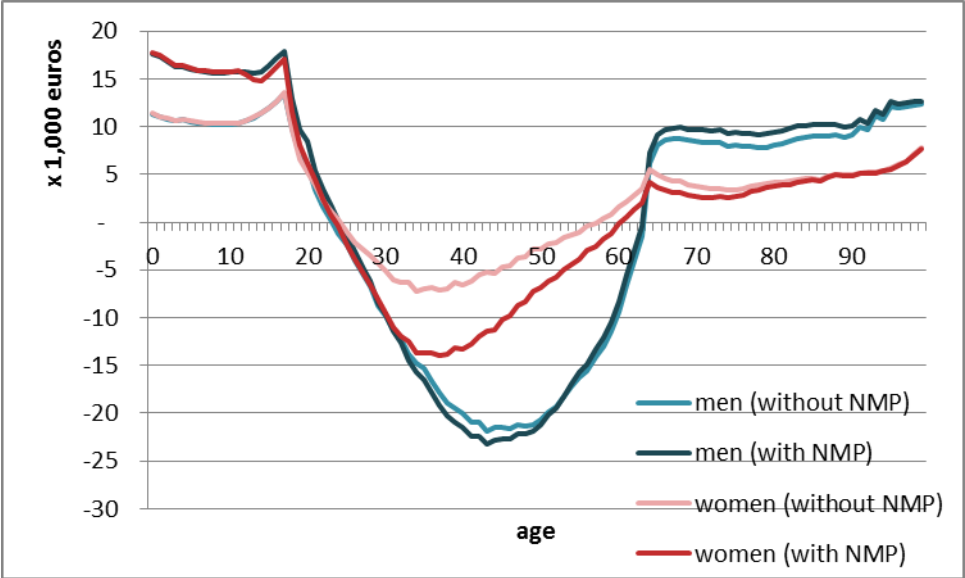


Figure 14 shows the average net private transfers by gender. For both genders the patterns are similar for the young, when they mainly receive intrahousehold transfers. Because consumption patterns for boys and girls are assumed to be equal the intrahousehold transfers are only affected by differences in household composition. When individuals start working the differences become visible. Men pay more transfers than women as a result of higher labour income. After retirement men receive higher transfers, because they accumulated more pension entitlements. On average the elderly receive high transfers, but as we have seen in previous charts, the aggregates are low because there are simply not many individuals in the age groups. The ageing society will in fact change this.

If we include the non-market production, we see that the net transfers become more negative for the working age groups, and that that of men does not change much. After retirement the average net transfers of men increase more than that of women. This shows that these non-market household production is not only necessary when intergenerational transfers are considered, but also in correct gender accounting.

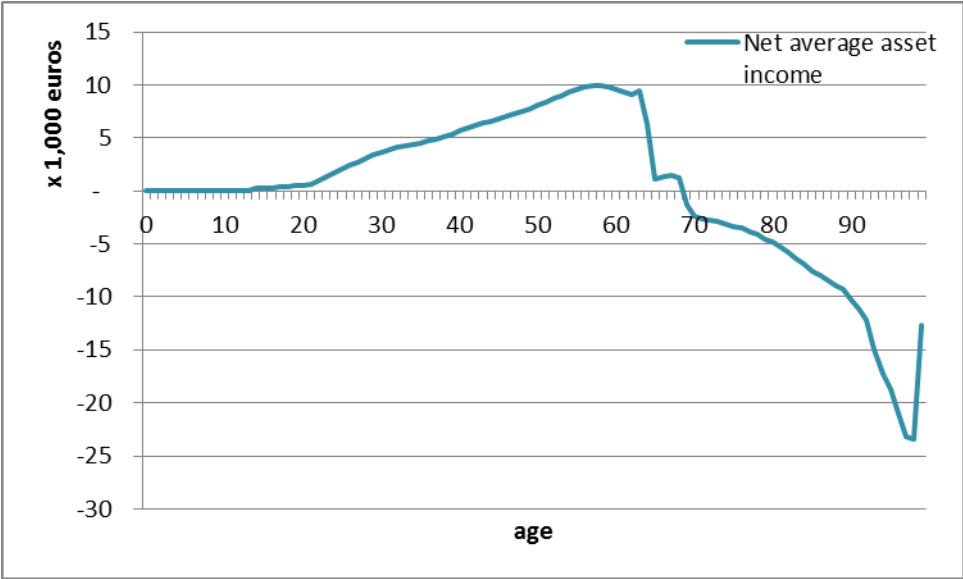
Net asset income

Nowadays, the Dutch society is moving to a participatory society where the private (non-market) transfers will increase if it is up to the government. However, lower public transfers can also lead to higher private savings, if income at older ages is no longer covered by transfers anymore. The NTA asset based reallocation accounts is largely influenced by specific SNA transactions. For example, property income is very high as a result of the property income on pension entitlements, and the adjustment item needed to arrive at the SNA concept of changes in net worth due to savings and

capital transfers. The latter are included in the SNA to qualify work-related pension benefits as income, and the contributions as savings. This is by far the largest part of household savings in the Netherlands. If households have to rely on private savings more, this will negatively influence the adjustment item, but positively influence property income received from assets.

Total net asset income is on average positive for the individuals younger than 69 years old. The reason for this is that the adjustment item is positive for the working ages, but negative for the retired, because contributions are no longer paid, only benefits received. Net property income rises with age, as does the depreciation, which is linked to the non-financial assets, and influences net asset income negatively.

Figure 15: Average net asset income (2012)



Summary and conclusions

In this paper we used the framework of the National Transfer Accounts to analyse the intergenerational transfers in the Netherlands. We argue the system of national accounts underestimates the true size of transfers. First, this is due to the focus on the household as the institutional unit of observation, which makes that flows within that household cancel each other out and are not recorded. Second, the production boundary of the SNA as it is now does not include non-market activities. We showed that both these limitations of the SNA have substantial influence on the total size of transfers, and on the distribution.

The latter is important in the current times where demographic changes trigger policy changes. Due to the ageing of the society, economies are influenced by the age profiles of underlying economic transactions. The welfare state is under pressure, because more people will benefit and less will contribute, a process that has been started already in the Netherlands and many developed countries. Governments respond by increasing the retirement age or reorganizing healthcare schemes. The SNA in its current state can't grasp all these effects, because it misses this age dimension. The NTA methodology presented here does allow for this kind of analysis.

Intrahousehold transfers amount to 52.1 billion euros in 2012, a lower bound estimate because the methodology used only foresees in these transfers flowing from parents to their children and not between adults. Smaller families would lead to lower estimates in the future, but people living longer at their parents will yield the opposite effect. The non-market household activities are estimated at 113.3 billion euros. This is probably a lower bound estimate also, because the wage used to estimate monetary values for these activities is the minimum wage. A further incorporation of the time use surveys in this analysis is suggested and encouraged, as it is a necessary analysis for shifts between the private and public domain, and for a clear understanding of gender differences.

A full understanding of intergenerational flows also includes the direction of the flows. Where the ageing society brings concern of sustainability for public transfer systems, it is shown in this paper that the young receive in total more transfers than the elderly as a group. Where demographic changes will put pressure on the transfers to the elderly, it relieves the pressure on the transfers for the young.

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Appendix A: SNA framework

Production account

Production account									Production account									
Uses									Resources									
		S11	S12	S13	S14	S15	S1	S2			S11	S12	S13	S14	S15	S1	S2	
		Non-financie	Financie	General	Households	NPISHs	Total	Rest of the			Non-financie	Financie	General	Households	NPISHs	Total	Rest of the	
Code	Transactions and balancing items	corporation	corporation	government			economy	world	Code	Transactions and balancing items	corporation	corporation	government			economy	world	
P7	Imports of goods and services								P7	Imports of goods and services								522 238
P71	Imports of goods								P71	Imports of goods								409 568
P72	Imports of services								P72	Imports of services								112 670
P6	Exports of goods and services							580 462	P6	Exports of goods and services								
P61	Exports of goods							478 260	P61	Exports of goods								
P62	Exports of services							102 102	P62	Exports of services								
P1	Output								P1	Output	887 509	76 109	124 068	150 977	6 086	1244 749		
P11	Market output								P11	Market output	878 468	75 431	6 890	117 970	225	1078 984		
P12	Output for own final use								P12	Output for own final use	9 041	678	5 291	33 007	23	48 040		
P13	Non-market output								P13	Non-market output	-	-	111 887	-	5 838	117 725		
P2	Intermediate consumption	508 739	27 110	42 215	84 778	2 990	665 832	-	P2	Intermediate consumption								
D21	Taxes on products								D21	Taxes on products								63 674
D31	Subsidies on products (-)								D31	Subsidies on products								3 361
B1g	Value added, gross / Gross domestic product	378 770	48 999	81 853	66 199	3 096	640 644	-										
P51c	Consumption of fixed capital	57 176	4 029	21 366	24 863	234	107 668	-										
B1n	Value added, net / Net domestic product	321 594	44 970	60 487	41 336	2 862	532 976	-										

Generation of income account

Generation of income account									Generation of income account								
Uses									Resources								
Code	Transactions and balancing items	S11 Non-financial corporate	S12 Financial corporate	S13 General government	S14 Household	S15 NPISHs	S1 Total economy	S2 Rest of the world	Code	Transactions and balancing items	S11 Non-financial corporate	S12 Financial corporate	S13 General government	S14 Household	S15 NPISHs	S1 Total economy	S2 Rest of the world
									B1g	Value added, gross / Gross domestic product	378 770	48 999	81 853	66 199	3 096	640 644	-
									B1n	Value added, net / Net domestic product	321 594	44 970	60 487	41 336	2 862	532 976	-
D1	Compensation of employees	227 365	19 435	60 107	13 498	2 832	323 237	1 077	D1	Compensation of employees							
D11	Wages and salaries	180 552	14 968	44 774	10 939	2 255	253 488	873	D11	Wages and salaries							
D12	Employers' social contributions	46 813	4 467	15 333	2 559	577	69 749	204	D12	Employers' social contributions							
D2	Taxes on production and imports	4 160	829	649	1 549	30	70 891	-	D2	Taxes on production and imports	-	-	-	-	-	-	-
D21	Taxes on products	-	-	-	-	-	-	-	D21	Taxes on products	-	-	-	-	-	-	-
D211									D211		844	-	-	570	-	1 414	-
D29	Other taxes on production	4 160	829	649	1 549	30	7 217	-	D29	Other taxes on production	-	-	-	-	-	-	-
D3	Subsidies (-)	4 860	59	269	1 324	-	9 873	-	D3	Subsidies	-	-	-	-	-	-	-
D31	Subsidies on products	-	-	-	-	-	-	-	D31	Subsidies on products	-	-	-	-	-	-	-
D39	Other subsidies on production	4 860	59	269	1 324	-	6 512	-	D39	Other subsidies on production	-	-	-	-	-	-	-
B2g	Operating surplus, gross	152 949	28 794	21 366	778	-	256 389	-									
B3g	Mixed income, gross				52 268	234											
P51c1	Consumption of fixed capital on gross operating surplus				15 785												
P51c2	Consumption of fixed capital on gross mixed income				9 078	234											
B2n	Operating surplus, net	95 773	24 765	-	-15 007	-	148 721	-									
B3n	Mixed income, net				43 190	-											

Allocation of primary income account

Allocation of primary income account									Allocation of primary income account								
Uses									Resources								
Code	Transactions and balancing items	S11 Non-financial corporate	S12 Financial corporate	S13 General government	S14 Household	S15 NPISHs	S1 Total economy	S2 Rest of the world	Code	Transactions and balancing items	S11 Non-financial corporate	S12 Financial corporate	S13 General government	S14 Household	S15 NPISHs	S1 Total economy	S2 Rest of the world
									B2g	Operating surplus, gross	152 949	28 794	21 366	778	-	256 389	-
									B3g	Mixed income, gross				52 268	234		
									B2n	Operating surplus, net	95 773	24 765	-	-15 007	-	148 721	-
									B3n	Mixed income, net				43 190	-		
D1	Compensation of employees								D1	Compensation of employees	-	-	-	318 386	-	318 386	5 928
D11	Wages and salaries								D11	Wages and salaries	-	-	-	249 060	-	249 060	5 301
D12	Employers' social contributions								D12	Employers' social contributions	-	-	-	69 326	-	69 326	627
D2	Taxes on production and imports								D2	Taxes on production and imports	-	-	68 465	-	-	68 465	
D21	Taxes on products								D21	Taxes on products	-	-	61 248	-	-	61 248	
D29	Other taxes on production								D29	Other taxes on production	-	-	7 217	-	-	7 217	
D3	Subsidies								D3	Subsidies	-	-	-	8 913	-	8 913	
D31	Subsidies on products								D31	Subsidies on products	-	-	3 348	-	-	3 348	
D39	Other subsidies on production								D39	Other subsidies on production	-	-	5 565	-	-	5 565	
D4	Property income	73 394	225 727	11 016	8 571	2	318 710	208 094	D4	Property income	56 364	209 913	19 222	47 207	213	332 919	
D41	Interest	14 256	89 327	10 983	8 332	2	122 900	70 312	D41	Interest	13 200	95 211	3 738	4 506	179	116 834	76 378
D42	Distributed income of corporations	34 081	106 925	-	-	-	141 006	135 352	D42	Distributed income of corporations	36 607	108 614	4 506	10 385	34	160 146	116 212
D421	Dividends	31 412	106 925	-	-	-	138 337	134 803	D421	Dividends	36 395	108 383	4 463	9 071	34	158 346	114 794
D422	Withdrawals from income of quasi-corporations	2 669	-	-	-	-	2 669	549	D422	Withdrawals from income of quasi-corporations	212	231	43	1 314	-	1 800	1 418
D43	Reinvested earnings on foreign direct investment	14 332	-13 942	-	-	-	390	567	D43	Reinvested earnings on foreign direct investment	6 390	-5 823	-	-	-	567	390
D44	Investment income disbursements	-	43 417	-	-	-	43 417	1 863	D44	Investment income disbursements	149	11 911	14	32 301	-	44 375	905
D441	Investment income attributable to insurance policy holders	-	6 101	-	-	-	6 101	18	D441	Investment income attributable to insurance policy holders	127	52	-	5 718	-	5 897	222
D442	Investment income payable on pension entitlements	-	23 965	-	-	-	23 965	-	D442	Investment income payable on pension entitlements	-	-	-	23 545	-	23 545	420
D443	Investment income attributable to collective investment funds share holders	-	13 351	-	-	-	13 351	1 845	D443	Investment income attributable to collective investment funds share holders	22	11 859	14	3 038	-	14 933	263
D45	Rent	10 725	-	33	239	-	10 997	-	D45	Rent	18	-	10 964	15	-	10 997	-
B5g	Balance of primary incomes, gross / National income, gross	135 919	12 980	89 124	410 068	445	648 536	-									
B5n	Balance of primary income, net	78 743	8 951	67 758	385 205	211	540 868	-									

Secondary distribution of income account

Secondary distribution of income account									Secondary distribution of income account								
Uses									Resources								
		S11	S12	S13	S14	S15	S1	S2			S11	S12	S13	S14	S15	S1	S2
Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world	Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world
									B5g	Balance of primary incomes, gross / National income, gross							
									B5n	Balance of primary income, net / National income, net							
	Current transfers									Current transfers							
D5	Current taxes on income, wealth, etc.	9 560	3 150	-	50 981	-	63 691	3 875	D5	Current taxes on income, wealth, etc.	-	-	65 633	-	-	65 633	1 933
D51	Taxes on income	9 560	3 150	-	44 307	-	57 017	3 785	D51	Taxes on income	-	-	58 869	-	-	58 869	1 933
D59	Other current taxes	-	-	-	6 674	-	6 674	90	D59	Other current taxes	-	-	6 764	-	-	6 764	-
D61	Net social contributions	-	-	-	163 235	-	163 235	1 882	D61	Net social contributions	6 987	59 213	98 214	392	27	164 833	284
D611	Employers' actual social contributions	-	-	-	58 867	-	58 867	199	D611	Employers' actual social contributions	-	26 438	32 628	-	-	59 066	-
D612	Employers' imputed social contributions	-	-	-	10 764	-	10 764	-	D612	Employers' imputed social contributions	6 987	-11	3 369	392	27	10 764	-
D613	Households' actual social contributions	-	-	-	75 845	-	75 845	1 384	D613	Households' actual social contributions	-	-	14 728	62 217	-	76 945	284
D614	Households' social contributions	-	-	-	23 438	-	23 438	417	D614	Households' social contributions	-	-	23 855	-	-	23 855	-
	Social insurance scheme service charges									Social insurance scheme service charges		-5 797	-	-	-	-5 797	-
D62	Social benefits other than social transfers in kind	6 987	38 783	73 412	392	27	119 601	248	D62	Social benefits other than social transfers in kind	-	-	-	117 226	-	117 226	2 623
D621	Social security benefits in cash	-	-	49 753	-	-	49 753	248	D621	Social security benefits in cash	-	-	-	48 097	-	48 097	1 904
D622	Other social insurance benefits	6 987	38 783	3 369	392	27	49 558	-	D622	Other social insurance benefits	-	-	-	48 839	-	48 839	719
D623	Social assistance benefits in cash	-	-	20 290	-	-	20 290	-	D623	Social assistance benefits in cash	-	-	-	-	-	20 290	-
D7	Other current transfers	7 490	17 737	115 484	20 038	3 922	164 671	4 561	D7	Other current transfers	6 241	17 770	105 767	15 171	8 971	153 920	15 312
D71	Net non-life insurance premiums	3 346	2 160	189	9 116	40	14 851	990	D71	Net non-life insurance premiums	-	15 288	39	-	-	15 327	514
D72	Non-life insurance claims	-	15 057	115	-	-	15 172	477	D72	Non-life insurance claims	3 411	2 218	189	8 897	40	14 755	894
D73	Current transfers within general government	-	-	102 853	-	-	102 853	-	D73	Current transfers within general government	-	-	102 853	-	-	102 853	-
D74	Current international cooperation	-	-	2 903	-	-	2 903	152	D74	Current international cooperation	-	-	-	152	-	152	2 903
D75	Miscellaneous current transfers	4 144	520	5 251	10 922	3 882	24 719	2 942	D75	Miscellaneous current transfers	2 830	264	2 534	6 274	8 931	20 833	6 828
B6g	Disposable income, gross	125 110	30 293	169 842	308 211	5 494	638 950	-									
B6n	Disposable income, net	67 934	26 264	148 476	283 348	5 260	531 282	-									

Redistribution of income in kind account

Redistribution of income in kind account									Redistribution of income in kind account								
Uses									Resources								
		S11	S12	S13	S14	S15	S1	S2			S11	S12	S13	S14	S15	S1	S2
Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world	Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world
									B6g	Disposable income, gross	125 110	30 293	169 842	308 211	5 494	638 950	-
									B6n	Disposable income, net	67 934	26 264	148 476	283 348	5 260	531 282	-
D63	Social transfers in kind	-	-	114 233	-	5 567	119 800	-	D63	Social transfers in kind	-	-	-	119 800	-	119 800	-
D631	Social transfers in kind - non-market production	-	-	45 981	-	5 567	51 548	-	D631	Social transfers in kind - non-market production	-	-	-	51 548	-	51 548	-
D632	Social transfers in kind - purchased market production	-	-	68 252	-	-	68 252	-	D632	Social transfers in kind - purchased market production	-	-	-	68 252	-	68 252	-
B7g	Adjusted disposable income, gross	125 110	30 293	55 609	428 011	-73	638 950	-									
B7n	Adjusted disposable income, net	67 934	26 264	34 243	403 148	-307	531 282	-									

Use of adjusted disposable income account

Use of adjusted disposable income account									Use of adjusted disposable income account								
Uses									Resources								
		S11	S12	S13	S14	S15	S1	S2			S11	S12	S13	S14	S15	S1	S2
Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world	Code	Transactions and balancing items	Non-financial corporate	Financial corporate	General government	Household	NPISHs	Total economy	Rest of the world
									B7g	Adjusted disposable income, gross	125 110	30 293	55 609	428 011	-73	638 950	-
									B7n	Adjusted disposable income, net	67 934	26 264	34 243	403 148	-307	531 282	-
P4	Actual final consumption	-	-	55 412	402 862	-	458 274	-	P4	Actual final consumption	-	-	-	-	-	-	-
P41	Actual individual consumption	-	-	-	402 862	-	402 862	-	P41	Actual individual consumption	-	-	-	-	-	-	-
P42	Actual collective consumption	-	-	55 412	-	-	55 412	-	P42	Actual collective consumption	-	-	-	-	-	-	-
D8	Adjustment for the change in pension entitlements	-	20 430	-	-	-	20 430	-	D8	Adjustment for the change in pension entitlements	-	-	-	20 118	-	20 118	312
B8g	Saving, gross	125 110	9 863	197	45 267	-73	180 364	-									
B8n	Saving, net	67 934	5 834	-21 169	20 404	-307	72 696	-									

Capital account

Capital account									Capital account								
Changes in assets									Changes in liabilities								
Code	Transactions and balancing items	S11 Non-financial corporations	S12 Financial corporations	S13 General government	S14 Households	S15 NPISHs	S1 Total economy	S2 Rest of the world	Code	Transactions and balancing items	S11 Non-financial corporations	S12 Financial corporations	S13 General government	S14 Households	S15 NPISHs	S1 Total economy	S2 Rest of the world
									B1n	Saving, net							
									B12	Current external balance							
P5g	Gross capital formation	66 530	3 038	24 020	30 330	228	124 146	-	P5g	Gross capital formation							
P5n	Net capital formation	7 392	- 991	2 634	5 414	- 18	14 431	-	P5n	Net capital formation							
P51g	Gross fixed capital formation	64 568	3 038	24 000	30 277	216	122 099	-	P51g	Gross fixed capital formation							
P51c	Consumption of fixed capital	57 176	4 029	21 366	24 863	234	107 668	-	P51c	Consumption of fixed capital							
P52 ANI2	Changes in inventories	1699	-	-	- 59	-	1 640	-	P52 ANI2	Changes in inventories							
P53 ANI3	Acquisitions less disposals of valuables	263	-	20	112	12	407	-	P53 ANI3	Acquisitions less disposals of valuables							
NP	Acquisitions less disposals of non-produced assets	9 560	-3 040	-1 044	245	4	5 725	-5 725	NP	Acquisitions less disposals of non-produced assets							
D9p	Capital transfers, payable	45	26	10 169	7 060	-	17 300	1 117	D9r	Capital transfers, receivable	1 257	89	7 618	7 252	805	17 021	1 396
D91p	Capital taxes, payable	-	-	-	1 372	-	1 372	59	D91r	Capital taxes, receivable	1 109	-	5 948	76	222	7 355	43
D92p	Investment grants, payable	-	-	7 169	-	-	7 169	229	D92r	Investment grants, receivable	-	-	-	-	-	1 382	49
D99p	Other capital transfers, payable	45	26	3 000	5 688	-	8 759	829	D99r	Other capital transfers, receivable	148	89	288	7 176	583	8 284	1 304
										Changes in net worth due to saving and capital transfers							
B9	Net lending (+) / net borrowing (-)	50 232	9 928	-25 330	14 884	500	50 214	-50 214	B101		69 146	5 897	-23 720	20 596	498	72 417	-55 939

Appendix B: Public transfers

Figure 16: Public transfer inflows (2012)

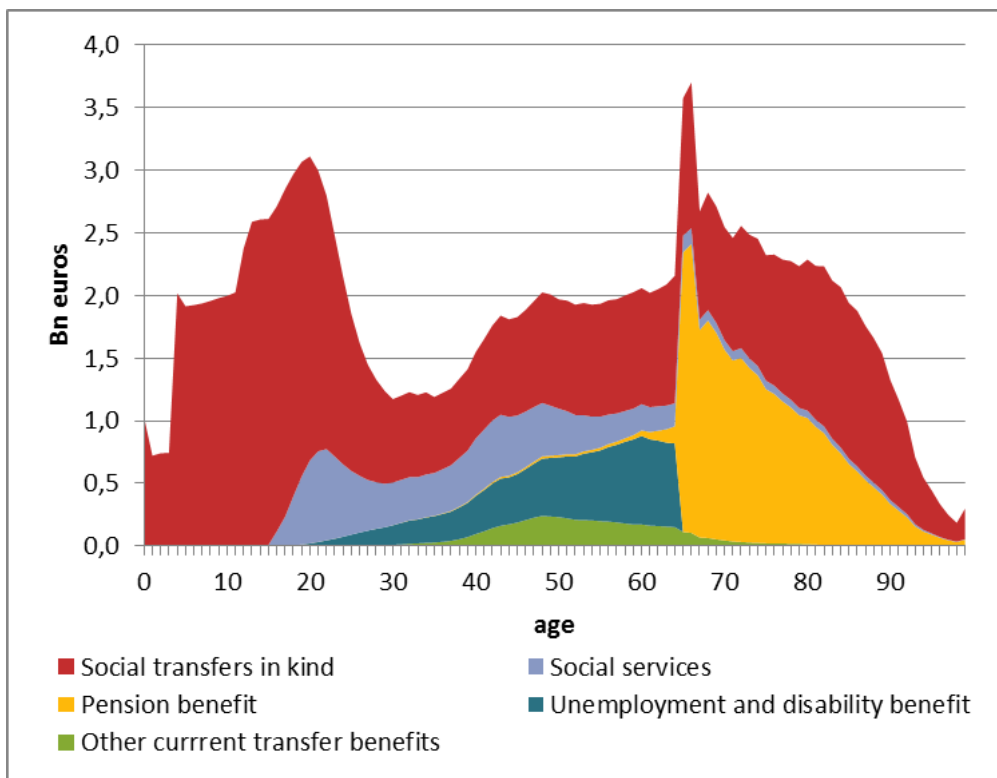
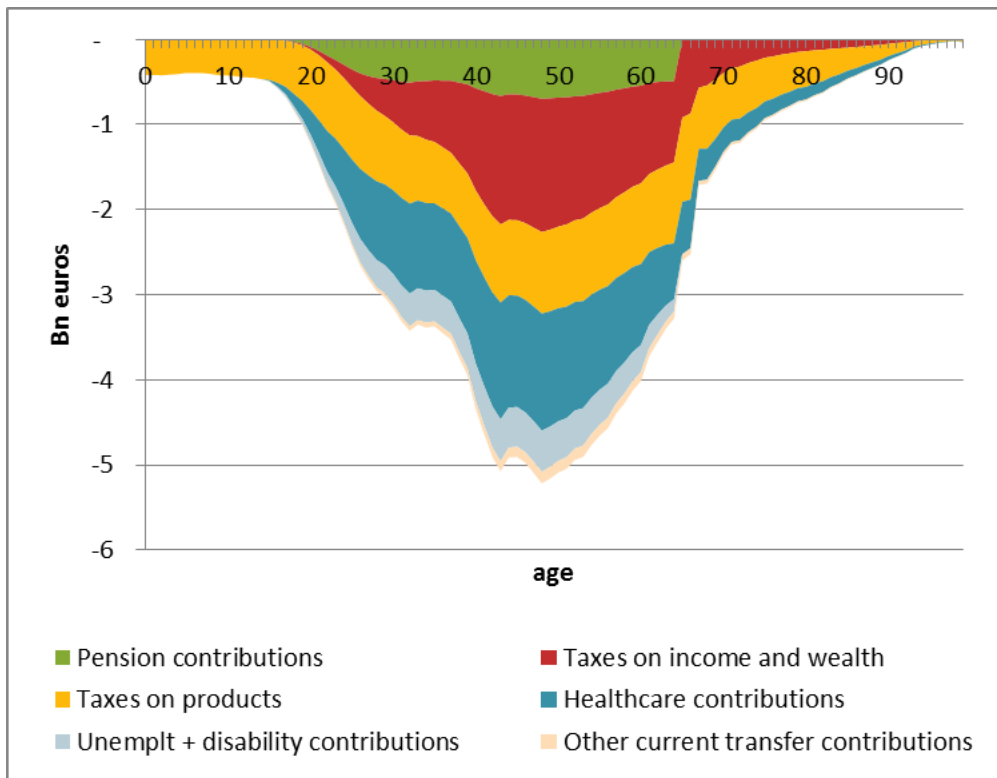


Figure 17: Public transfer outflows



Appendix C: Private transfers

Figure 18: Private transfer inflows (2012)

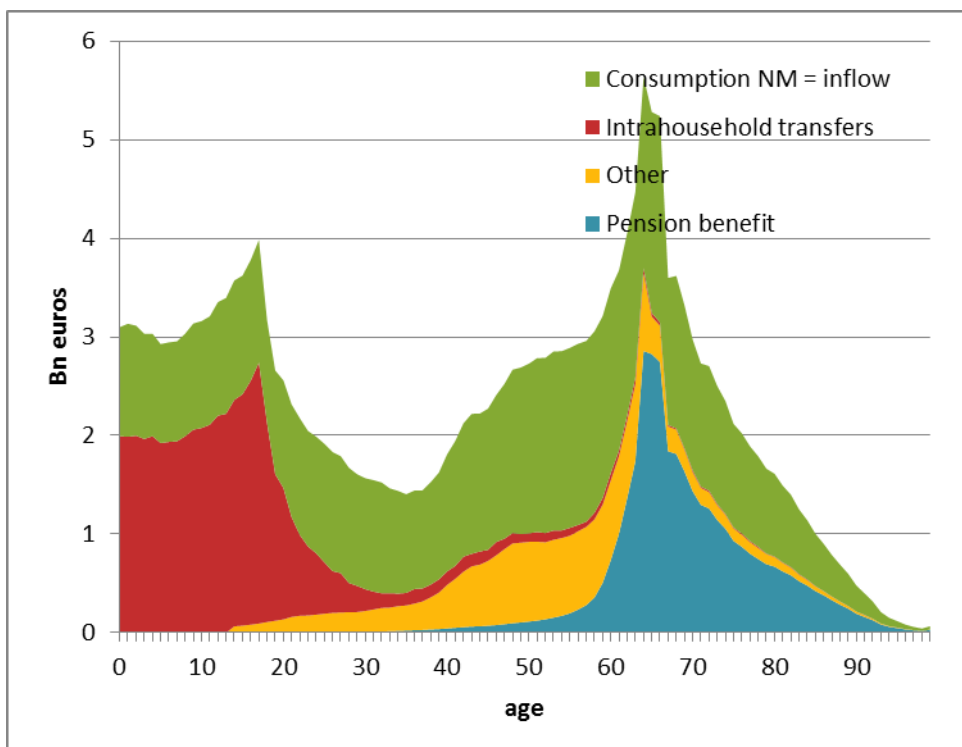


Figure 19: Private transfer outflows (2012)

