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Quantifying the Role of the Family in the Intergenerational Transfer System: An Application of National Transfer Accounts for Austria 2015

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ABSTRACT
Few data sources provide information on private transfers between generations and gender. We use a novel approach based on the National Transfer Accounts methodology to estimate the value of intra-family transfers between generations and gender in Austria 2015. The paper considers transfers of money and consumption goods as well as transfers of services produced by non-market work. Parents use one third of their disposable income and up to four hours of daily non-market work for their children. The total size of the intra-family transfers is comparable to the size of public social transfers and correspond to 38 per cent of primary income.

Keywords: Generational Economy, National Transfer Accounts, Intra-Family Transfers

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An application of National Transfer Accounts for Austria 2015

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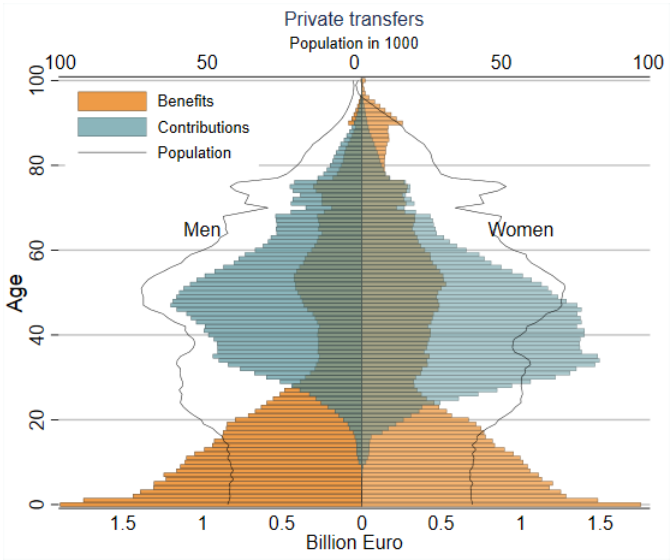

Abstract

Few data sources provide information on private transfers between generations and gender. We use a novel approach based on the National Transfer Accounts methodology to estimate the value of intra-family transfers between generations and gender in Austria 2015. The paper considers transfers of money and consumption goods as well as transfers of services produced by non-market work. The total size of the intra-family transfers is comparable to the size of public social transfers and correspond to 38 per cent of primary income. Having dependent children is associated with large transfers to children and substantial transfers between the parents. We illustrate that the consideration of private transfers is essential in understanding and evaluating economic vulnerability.

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Contents

1 Introduction

Transfers within families are a central element of the intergenerational support system. Characteristic for the life course in modern societies are long periods of economic dependency in childhood and old age, when consumption exceeds own production. Three channels for financing the difference between consumption and production can be distinguished: private transfers, public transfers and asset-based reallocation of resources.[3] In European welfare states, public transfers are mainly directed at the elderly population. For children the most important type of support are private transfers from their parents. Because most private transfers are transactions within families, we use the terms intra-family transfers and private transfers interchangeably.

Despite their importance, few data sets provide information on private transfers. Public transfers are regularly measured and analysed by public organizations and statistical institutes. Examples are the pensions at a glance report (OECD, 2019) and the Ageing Report of the European Commission (European Commission, 2018). By contrast, few data sources and few scientific studies focus on transfers within families. For Austria the latest estimation of costs of children are from the year 2003 (Guger et al., 2003). Based on this research, Wüger and Buchegger (2003) estimate the cost of children for Austria 1999/2000 at about 500-600 Euro per month and child. Adjusted for inflation, this would amount to about 8,500-10,000 Euro per year in 2015.

In this paper we quantify intergenerational transfers within families in Austria 2015. The methodology is based on National Transfer Accounts (NTAs) and National Time Transfer Accounts (NTTAs). We use a novel approach that allows the distinction by characteristics other than age and gender and the estimation of transfers paid and received. The paper distinguishes between the *market transfers* in NTAs and *non-market transfers* in NTTAs. NTAs are an accounting system that provides age and gender-specific information on income, public and private transfers, consumption and saving (Lee and Mason, 2011). Private transfers in NTAs include mainly transfers of money and consumption goods between household members. We use the term market transfers because by generating income and purchasing goods and services these transfers involve market transactions. The most important type of private market transfers is the consumption of children that is financed by parents. NTTAs integrate non-market production, transfers and consumption into the NTA system (Donehower, 2019). The transfers captured in NTTAs are referred to as *non-market transfers*. Non-market transfers consist of services that are produced for members of the own household or provided free of charge to other households. The most important components of the non-market transfers are childcare and household services such as cooking and cleaning.

Research based on NTAs and NTTAs provide novel insights on the role of families in the transfer system. In all countries around the world consumption of children is financed mainly by intra-family market transfers from the parents (NTA, 2016). However, private market transfers are also important

[3] A transfer is defined as a transaction in which one person provides a good, service or asset to another person, without receiving from the latter any good, service or asset in return as counterpart (cf. SNA, 2009). It includes in particular public pensions and parents financing the consumption of their children. Assets are accumulated to generate income in the future, to be sold or bequeathed later in life. Asset based reallocation constitutes therefore an important instrument to reallocate resources across life stages.

from a gender perspective: the specialization of men in paid work and women in non-market work results in market transfers from men to women, with varying degrees across countries (Hammer et al., 2020). NTTAs show the important role of services produced by non-market work in the economy and the intergenerational transfer system. For women, non-market work peaks at childbearing age and in retirement with values of more than 5 hours of non market work per day (Vargha et al., 2017; Zagheni et al., 2014). The elderly population produces non-market services mainly for themselves. By contrast, mothers with dependent children produce non-market services mainly for their children: in their first two years of life children require between 5 and 7 hours of non-market work per day.

Several NTA based research papers combine market and non-market transfers. By accounting for non-market work, Gál et al. (2018) find that the value of public and private transfers to children is larger than the value of transfers to elderly persons. Hammer et al. (2018) place the transfers to children at the center of the generational contract: the size of the private and public transfers to the child generation determines their potential to finance public transfers to the elderly population once they enter employment. Their results indicate an imbalance between low investments in children and generous transfers to the elderly population in 16 European countries. Some basic gender patterns are similar in all countries: men provide more public transfers and market transfers to children, women provide most of the non-market transfers. However, the exact role of men and women in the intergenerational transfer system differs widely across countries. In Spain, Italy and Slovenia, women use considerably more time for work activities than men and contribute more to the intergenerational transfer system (Hammer et al., 2020; Rentería et al., 2016). Austria is characterised by an gender-equal distribution of total working time (Zannella et al., 2019). However, also in Austria women carry out a much larger part of the non-market work. High part time rates among women and the lower amount of paid work results in lower income, lower contributions to the pensions system and consequently much lower yearly pensions for women (Eurostat, 2020b). Because of their lower income, Austrian receive positive net market-transfer from their partner at all adult live stages. By contrast, men receive positive non-market transfers from their female partner in later working life and retirement (Hammer et al., 2020).

The Austrian NTAs for 2015 provide novel and detailed information on private transfer contributions and benefits. Before 2015, NTAs for Austria have been compiled for 1995, 2000, 2005 and 2010 (Hammer, 2014). Furthermore, Austria is included in the European NTA dataset that has been generated within the AGENTA research project (Istenič et al., 2016).[4] The basic NTA methodology used in Austrian NTAs for earlier years is designed to capture net transfers between age groups. It does not allow the estimation of total transfers paid and received, and an analysis by socio-economic characteristics other than age and gender. The 2015 NTAs base the estimation of private transfers on micro data that combines income and consumption data at household level. The method allows the detailed analysis of private transfers that are provided and received by men and women at each age. Furthermore, it enables the analysis by parental status additional to age and gender. In this paper we describe in detail the estimation methodology for private transfers. Based on the Austrian NTAs we address the following questions: How large are intra-family transfers and how do they redistribute

[4]The Austrian NTA data for 1995, 2000, 2005 and 2010 can be accessed at www.ntaccounts.org, the European NTA data at www.wittgensteincentre.org/ntadata.

across age and gender? Taking into account private market transfers, how is the economic situation of parents compared to childless adults? As we illustrate, Austrian NTAs for 2015 enable a profound analysis of the role of the family in the intergenerational transfer system.

Understanding the role of families in the generational economy enhances our understanding of current economic and demographic developments. The financial crisis and sovereign debt crisis affected the young population and families much stronger as compared to older generations. Income of the younger population stagnated or even declined during the last decade, while it increased considerably for the older population (Rocha-Akis et al., 2019). This development resulted in a considerable decline of poverty rates among the population 60+, while poverty rates remained at comparably high levels for younger households, especially families with children (Eurostat, 2020a). The economic crisis due to COVID-19, population ageing and the retirement of the baby-boomer will additionally increase the economic pressure on young generations in the coming years. Knowledge about the role of private transfers in the generational economy will improve our understanding of economic and social developments, including a better understanding of poverty patterns and fertility decision-making. Such understanding is a prerequisite for reforming welfare systems in a way that promotes sustainability and generational equity.

2 Methodology and Data

This chapter provides an overview of the general NTA and NTTA methodology and describes in detail the estimation of private transfers within households for Austria in 2015. A detailed overview of the basic NTA methodology without non-market production is provided in Hammer (2020).

2.1 National Transfer Accounts: a general overview

NTA data provide information on age-specific means of income, public transfers, private transfers, consumption and saving. The broad estimation strategy for NTAs is, first, to derive the aggregate values from National Accounts data and related sources. Aggregate values refer to the quantities for the total economy, i.e. total labour income or total consumption in Austria 2015. In the second step the distribution over age groups and genders is estimated using survey- and administrative data. All age profiles are adjusted by an appropriate factor, so that the per-capita averages for each age group summed up over the total population match the aggregate values. Likewise, gender-specific averages are adjusted so that the sum of male and female-specific values in each age group equals the age group total. The third step estimates the transfers within the household, which are based on the difference between consumption and income.

A detailed description of the basic NTA methodology can be found in UN (2013). Lee and Mason (2011) provide a description of the methodology as well a presentation of the country results from all over the world. However, these descriptions of NTAs and the data for most countries ignore the

gender dimension. Istenič et al. (2016) describe the methodology and the results for the gender-specific European NTAs for 2010.

Table 1 illustrates the central patterns of NTAs for Austria 2015. The average yearly primary income is highest in the age group 20-59 with more than 42,000 Euros on average. Primary income refers to income generated by direct participation in the production process and asset income. On average, a 20-59-year-old pays more than 12,000 Euros to children and elderly persons via public transfers, and about 3,000 Euros to children in form of private transfers. For children the private transfers are the most important source of income. They receive more than 9,000 Euros of private transfers per year, and slightly less than 9,000 Euros of public transfers, with education as main component. Public pensions and health services are the largest components of public transfers and directed mainly to the retired population. In total, the population 60+ receives more than 17,000 Euros of net public transfers, on average. Disposable income is increasing with age. While disposable income of the population below 20 is less than 20,000 Euros, it is more than 34,000 Euros for the population 60+. Consequently, the population 60+ has the highest level of total consumption (public + private) and the highest level of saving.

Table 1: National Transfer Accounts for Austria 2015: Overview, three age groups

	Age 0-19	**Age 20-59**	**Age 60+**
Primary income (labour + asset)	1,313	42,334	17,169
Net private transfers	9,577	-3,029	-623
Net public transfers	8,893	-12,406	17,713
Disposable income	**19,783**	**26,899**	**34,259**
Private consumption	8,669	18,177	20,489
Public consumption	11,238	5,625	8,981
Saving (residual)	-124	3,097	4,789

Source: Hammer (2020)

Net transfers are defined as transfers received less transfers paid.

2.2 Private market transfers

Estimates of intra-family market transfers for NTAs are based on the difference between individual income and consumption. It is assumed that consumption of a household member is financed by other household members if its own income is not sufficient. Such intra-family transfers capture mostly the transfers from parents to children and transfers between partners with large differences in income.

For estimating intra-family transfers NTAs require micro-data that contain information on the structure of households, as well as information on income and consumption of the individual household members. When income and consumption is not captured in the same data, the NTA manual (UN, 2013) suggests to impute age-specific averages of income and consumption into a data set that represents the household structure. This methodology is designed for calculating age-specific net transfers within households. It does not allow an analysis by other characteristics, because it disregards the

relation between consumption and income and the differences in income and consumption across socio-economic groups.

Austrian NTAs for 2015 use a novel approach of imputing the information on consumption into income data. Accounting for the relation between income and consumption enables an analysis of intra-family transfers by characteristics other than age and gender. For the imputation we use a linear regression model. The relation between income, consumption and the household structure is estimated using the Austrian consumer expenditure survey 2014/15. Consumption per household member of household j (c_j) is modeled as linear function of average income per household member (y_j) and household size in terms of adult-equivalent consumers ($hhsize_j$). Adult-equivalents are calculated according to the NTA consumption equivalence scale: children until age four represent 0.4 equivalent consumers and for persons between age 4 and age 20 the equivalence scale increases linearly to one (UN, 2013, p.100).

$$c_j = \alpha + \beta_1 * y_j + \beta_2 * hhsize_j + \epsilon_j \tag{1}$$

The term (α) captures autonomous consumption, i.e. the minimum level of yearly consumption of an adult (10,124 Euro). The term β_1 represents the propensity to consume out of income (about 0.74) and β_2 captures economies of scale in consumption (-1,890 Euro per equivalent consumer). This model is then used to impute the information on consumption of households into the EU-SILC sample. For distribution of household consumption to individuals we use the NTA consumption equivalence scale. The individual data are then adjusted, so that age and gender-specific values correspond exactly to age-specific disposable income and consumption in the NTA data.

The estimates of intra-household transfers are based on assumptions about income-sharing within households. It is assumed that income is shared within couples and that consumption is financed by other household members if a persons own income is not sufficient. The sharing of income between partners constitutes the first component of the intra-household transfers. In the next step we calculated the difference between consumption and the shared income. If consumption exceeds income, it is assumed that the difference is financed by household members with income exceeding consumption. For children income typically falls short of consumption. Their consumption is financed by the other adult members. If total income of an household exceeds its consumption, we assume that the excess income is saved. If income falls short of total consumption, the difference is financed by dissaving of the adult members.

2.3 NTTAs and private non-market transfers

National Time Transfer Accounts measure production, consumption and transfers of services produced by non-market work. The most important non-market services include cooking, cleaning, shopping and childcare. Non-market production of households is not captured in the National Accounts core system, but is occasionally estimated in so called household satellite accounts (Poissonnier and Roy, 2017; European Communities, 2003). The estimations are challenging, since there are no data on the output of non-market production activities of households, let alone their market value. Furthermore,

there is not even data on the value of the inputs, consisting mostly of unpaid work. Most household satellite accounts measure non-market production by valuing the time input with wage rates for comparable activities.

Non-market production for other household members constitutes a fundamental type of transfer between gender and generations. Donehower (2019) developed the NTTA methodology to integrate non-market work into the NTA framework. NTTAs measure production, consumption and transfers of non-market services by age and by gender. We estimate NTTAs for Austria using the most recent time use survey (TUS) of 2008/09[5].

While allocating non-market production to individuals is straightforward, the estimates of consumption and transfers require several assumptions. TUS micro-data provides information on time use for non-market production at individual level. Production estimates by age, gender or parental status simply use this information. However, the data do not provide information about who in the household consumes the produced services. To allocate non-market consumption to individuals, NTTAs use several methods and assumptions. These methods depend on the type of the activity and whether it is carried out for household members or other households. Non-market transfers are calculated as difference between production and consumption.

NTTAs assume that each household member profits equally from general household services such as cooking or cleaning. Consequently, consumption of household services that are produced for the own household is estimated by adding up the time used for production within households and distributing it to all members in equal shares. The consumption of non-market services produced for other households assumes an equal distribution over the total population, i.e. independent of age and gender. Non-market services for other households include voluntary work for non-profit organizations as well as help in household work.

Most childcare services are consumed by children in their very first years of life. To estimate the consumption of childcare services provided by household members, we assign the total time used for childcare in the household to the children. In the Austrian TUS children are defined as persons below the age of 16. This approach is straightforward if there is only one child in the household. In case there are more children in the household, we use age-specific weights. The age-specific weights account for the higher need of younger children and are based on age-specific amount of childcare in households with only one child. Estimates of childcare services received from other households is based on information on the use of childcare from third persons in EU-SILC. It includes for example grandparents taking care of the children. For adult care we assume that adult care services are provided to the oldest person in the household. In general, total time that is identified as adult care in the time use survey is small.

To assign a monetary value to non-market work we value each hour of non-market work with the minimum wage rate for comparable market-work. The activities other than childcare are valued with the hourly costs of a housekeeper employed at minimum wage in 2015, accounting for Christmas and holiday allowances, holidays and the employers social contributions. Childcare is valued with the

[5]Statistik Austria: Zeitverwendungserhebung 2008/09.

costs of a childcare worker, which is somewhat lower than the costs for a general housekeeper.[6] Note that this is a lower estimate of the costs. Housework and childcare is distributed over the whole day with gaps in between. Furthermore, responsibilities for children require the presence of an adult even when there is no direct interaction with the child. Actually replacing all these activities with market services would be much more expensive.

3 Results

The results for market and non-market private transfers are presented separately and then combined into overall private transfers. Within each step we first present age and gender-specific per capita transfers. Second, we present the total volume of age and gender-specific transfers in the economy. And third, we analyse transfers by parental status.

3.1 Private market transfers

Private market transfers consist mostly of transfers from parents to children and transfers between partners. Market transfer benefits peak around age 15 with mean values of more than 11,000 Euros (Figure 1). At this age young persons have a high market consumption, but are still dependent on their parents. With the entry into the labour force and own income, transfer benefits decline strongly. However, on average, adult women continue receiving transfers. This pattern reflects the specialization of fathers in paid work and of mothers in household work and childcare. The lower income of women translates into lower pensions and continued private transfers from men to women during retirement. The contributions peak at age 35-50 with values of more than 10,000 Euros for men and 5,000 for women.

To illustrate the macro-economic importance of intra-household transfers we calculate total market transfers by age groups and gender (Figure 1, lower panel). Total market transfers within households amount to 42 billion Euros and correspond to 17 per cent of primary income. About 47 per cent of the market transfers are provided to the population 0-24, corresponding to 20 billion Euros. About 43 per cent of the private market transfers are received by adult women and 10 per cent by adult men. Because of their higher income, men provided 71 per cent of total intra-household market transfers, women 29 per cent.

[6]The gross monthly minimum wage in 2015 was 1,436 Euro for a housekeeper without professional education and 6 years of experience (https://www.ris.bka.gv.at/eli/bgbl/II/2014/299). With the non-wage labour costs (https://rechner.cpulohn.at/bmf.gv.at/) and a 1,722 yearly working hours (http://wko.at/statistik/eu/europa-arbeitszeit.pdf) the hourly wage is 15.28 Euro. With a similar calculation we receive for one hour of childcare a value of 13.33 Euro.

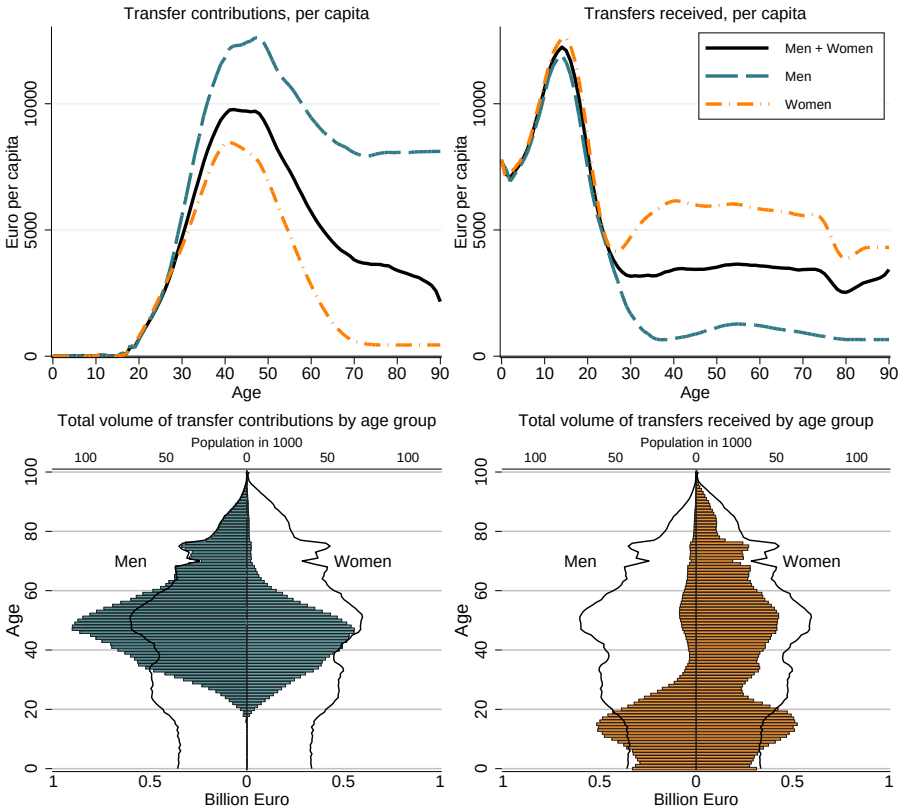

Figure 1: Private market transfers by age and gender

Private market transfers by parental status

The value of private transfer contributions is strongly related to parental status and age of the youngest child. The relation between age and private transfers reflects the age-specific share of parents with dependent children in the population. Within age groups there are large differences in private transfer contributions, dependent on parental status. We use the term *final disposable income (FDI)* for disposable income after accounting for private market transfers. To illustrate the amount of income that parents use for children, we decompose disposable income into net contributions to market transfers and FDI (Figure 2). Because disposable income and transfers depend strongly on the age of parents and children, we distinguish parents by age of the youngest dependent child, and the population without dependent children by age and economic status. Dependent children are identified as those persons below the age of 30 who report education as their economic status. The difference between disposable income and FDI is much higher for parents with dependent children and represents their high net contributions to private market transfers.

Parents use about one third of their income for their children. Parents with young children have comparably low net wages and additionally they have to restrict their labour force participation because of care responsibilities. Their average FDI is with less than 20,000 Euro considerably lower than for the other groups considered. Disposable income and final disposable income increases with

age of the child and age of the parents. This is an effect of incomes generally increasing with age and of mothers reentering the labour market. However, the FDI of parents with dependent children above the age of 15 is with 24,000 Euros still considerably lower than for older working age adults and retirees without dependent children. Their FDI is about 33,000 Euros and 28,000 Euros, respectively.

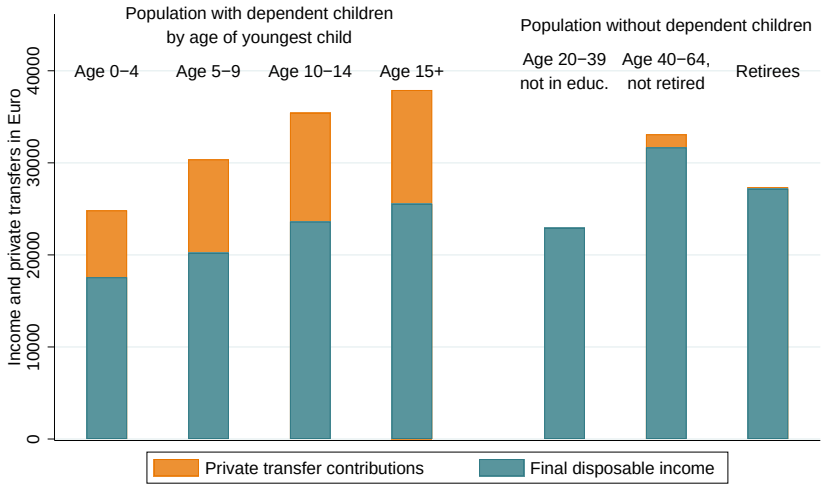

Figure 2: Decomposition of disposable income into net market transfers and final disposable income. The height of the bar represents individual disposable income before intra-family transfers.

3.2 Private non-market production and transfers

The production of non-market services is characterized by large differences between age-groups and gender. During working age, women use between 4 and 6 hours per day for non-market work, men slightly more than 2 hours (Figure 3). For both men and women non-market work peaks around age 70 with about four hours for men and 5,5 hours for women. If this time is valued with wages of household staff and professional childcare, the value of non-market production and consumption amounts to 140 billion Euros, 58 per cent of primary income, or 40 per cent of GDP. These values are in line with estimates from other countries, which range between 30 and 60 per cent of GDP, depending on the exact method (Poissonnier and Roy, 2017). In contrast to production, consumption of non-market services peak in the first years of life, corresponding to more than 6 hours of work per day. The working age population consumes services that require about two hours of non-market work per day. Consumption increases again towards retirement, in line with the higher production. The difference between consumption and production represents the net transfers.

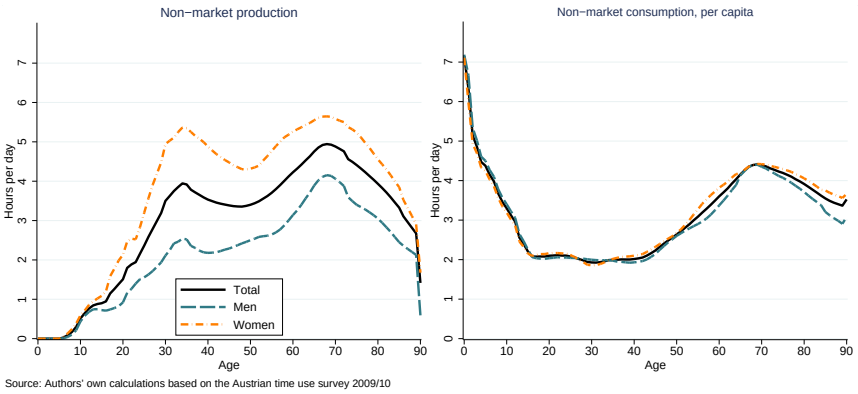

Figure 3: Non-market production and consumption by age and gender

Most of private non-market transfers are provided by working-age women. While elderly persons use non-market work to produce for themselves, working-age women produce for their children. The value of non-market services that are provided to children and the partner amount to more than 15,000 Euros per year for women at age 30-40 (Figure 4, left panel). By contrast, the contributions of men are around 5,000 Euros at age 30-40, only slightly above the value they receive (Figure 4, right panel). Children are the main receiver of non-market transfers, exceeding the value of 30,000 in the first years of live. Because monetary values are strongly dependent of the exact method of valuation, we provide the value of net transfers in terms of time in Figure A-1 in the Appendix. As a rule of thumb, about 5,000 Euros per year correspond to one hour of daily work. Young children receive services that require more than six hours of non-market work. These services are mostly provided by women at age 30-40, who use more than three hours of work per day for producing services for other household members.

Given our valuation, total transfers in form of unpaid work correspond to 51 billion Euros or 21 per cent of primary income. The population below the age of 25 receives 60 per cent of the non-market transfers with a value of 31 billion Euros. Another group of non-market receiver are adult men aged 20+: they receive 30 per cent of the non-market transfers, adult women 10 per cent. In total about 74 per cent of the non-market transfers are provided by women.

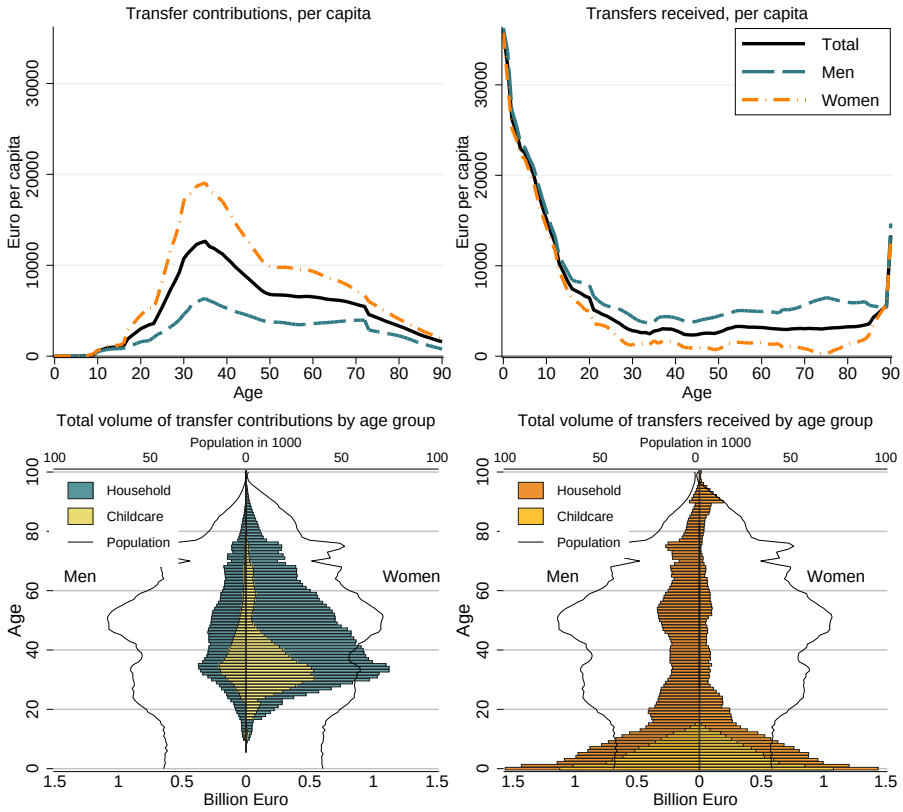

Figure 4: Private non-market transfers per capita by age and gender in Euro

Private non-market transfers by parental status

For analyzing non-market and total work by parental status, total time used for work is decomposed into its components. We distinguish between paid work, non-market work for own consumption, and non-market work for others. The non-market work carried out for others represent the net non-market transfer contributions. They depend largely on the number and age of the youngest child in the household. Parents with children below the age of 4 provide four hours of non-market work to other generations (Figure 5). To accommodate these responsibilities, parents reduce paid work and non-market services produced for themselves. Nevertheless, parents with young children are the group with the highest amount of time used for work in total. On average they use more than nine hours per day for work. Total working time and non-market transfers decreases with the age of the child, while market work and non-market work for own consumption increases. Retirees have the lowest level of total work. They do carry out a considerable amount of non-market work. In contrast to parents with small children, they produce these services mainly for their own consumption.

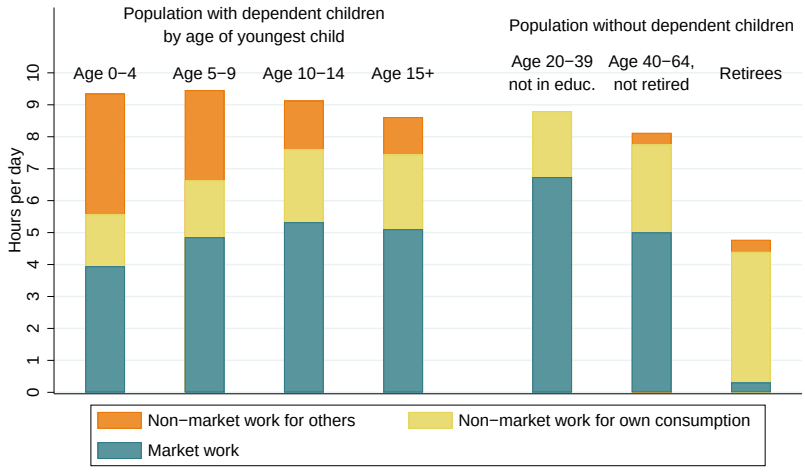

Figure 5: Total work by type and age of child

3.3 Total private transfers by age and gender

Combining the market and non market transfers allows a comprehensive illustration of total transfers within the family (Figure 6). Most of the needs of children is covered by private transfers. Market and non-market transfers together amount to 40,000 Euros in the first year of life and decrease to about 10,000 Euros at age 20. The specialization of women in non-market work and men in market work results in considerable transfers between partners. During working age men and women receive transfers from their partner with a value of about 8,000 Euros. The largest contributions are made at those ages when people have young children. Women provide most of the non-market transfers to young children. Total private transfers peak at age 30-40 with a value of 25,000 Euros. Men provide a larger part of the market transfers. More of these transfers are directed to older children and peak therefore at higher ages of the parents. For men the private transfer contributions peak at age 35-50 with about 17,000 Euros.

In total, the value of intra-household transfers amounts to 93 Billion Euros. Of which 51 billion are provided to the population below the age of 25. To illustrate the size of this transfers a comparison with public transfers is helpful: net public transfers to children amount to 25 billion Euros, the net public transfers to the elderly population aged 60+ to 58 billion Euros. Total private transfers are rather equally distributed among gender, with women providing 51 per cent of total. Although women contribute more to private transfers until about age 50, men provide more private transfers in old age. This pattern illustrates the economic challenges for mothers in case of a break-up of their relationship: they provided the transfers to children, but loose the compensation from their partner for their lower market income and the smaller pension benefits.

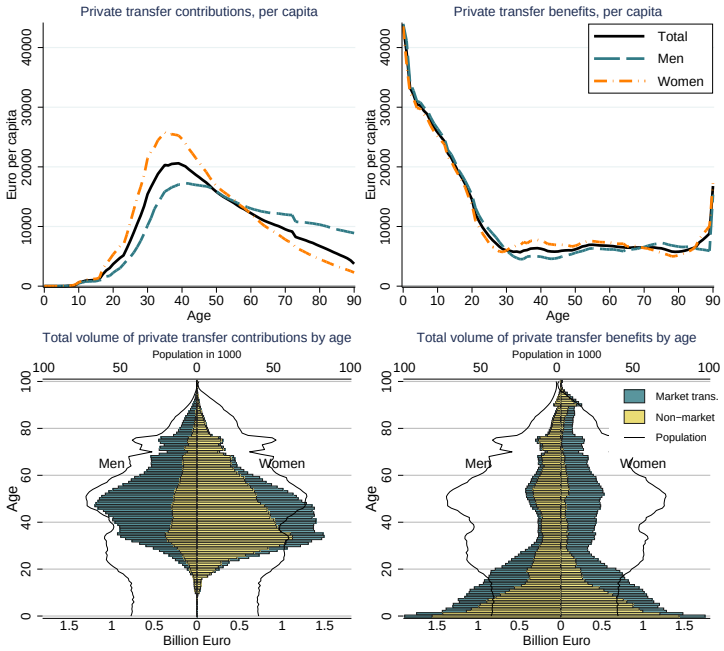

Figure 6: Private transfers by age and sex

Total private transfers by parental status

Parents produce more than people without dependent children, they provide most of private transfers and end up with lower resources for themselves. Figure 7 shows net transfer contributions and final disposable income including non-market production by parental status. These two components together represent the total disposable income of parents before private transfers. Because of their higher non-market production, total income and production is higher for the group of parents. However, a large part of income is redistributed to their children. The total final disposable income is considerably lower for the group of parents.

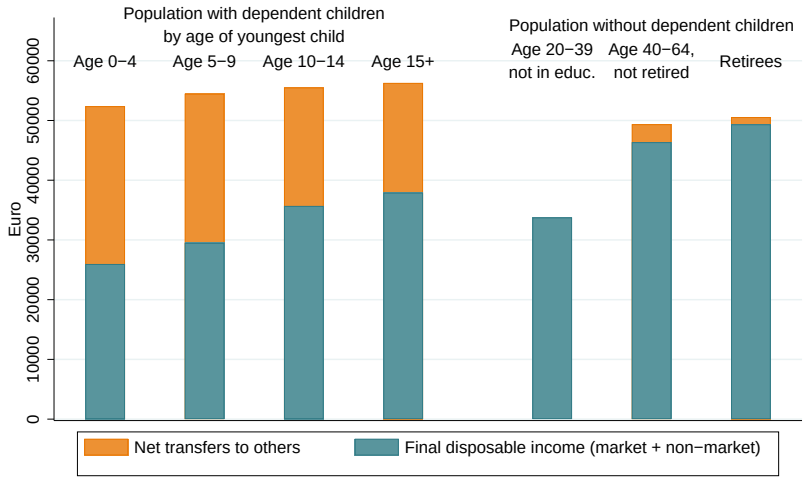

Figure 7: Disposable income and final disposable income: market and non-market. The height of the bars represent income and the value of non-market production.

4 Conclusion

Transfers within families are central a component of the intergenerational transfer system. Based on National Transfer Accounts data for Austria 2015, we estimate the value of total private transfers to 93 billion Euros. Of which the transfers to the population below age 25 amount to 51 billion Euros. For comparison, the public transfers to the population 60+ had a value of 58 billion Euros in 2015. The estimates of private transfers include market transfers and non-market transfers such as care and household services. The value of market transfers to the population aged 0-24 amounts to 21 billion Euros, the value of non-market transfers to 30 billion Euros.

Intra-family transfers constitute a considerable economic burden for the parents. We refer to disposable income after intra-family transfers as final disposable income. Parents with dependent children use about one third of their income for children. These responsibilities for children results in a considerably lower final disposable income as compared to groups without dependent children. Parents with children below the age of five have a final disposable income of less than 20,000 Euros, while final disposable income of retirees without dependent children is about 28,000 Euros and of older working age adults without dependent children 33,000 Euros per year. Furthermore, the care responsibilities for children result in a higher total amount of work. Parents with children below the age of five use about 9 hours per day for market and non-market work. They use more than half of this time to produce non-market services for the children.

Remarkable are the strong gender patterns in private transfers. Due to their higher income, men provide 71 per cent of the private market transfers. By contrast, women provide 74 per cent of the non-market transfers. Men share their higher income with their partner even after children have left the joint household, while women continue providing non-market transfers in form of household work. Because of their lower income and lower contributions to the social security system, women end up

with lower pensions than men. This patterns explains the high risk of poverty for lone mothers and women in old age. With a break-up of their relationship they loose access to private transfers as important component of their disposable income.

Understanding economic vulnerability and inequality requires the consideration of private transfers. When discussing the social system and reform options of the welfare state in the context of demographic change, we often solely focus on public transfers, ignoring the role of private transfers. For societies private transfers constitute important human capital investments. The costs are paid almost exclusively by parents. For parents the transfers to children are synonymous to additional expenditure, lower labor force participation, lower income and they consequently result in lower pension rights in old age. Not surprisingly, families are among the groups with the highest risk of poverty. In couples the economic burden of children is shared and mitigated by specialization and transfers between partners. A break-up of the relationship is associated with a loss of access to private transfers, resulting in low income and high poverty among lone parents and women in old age. For a complete picture of the economic situation of different generations and different groups in our society it is of utmost importance to consider the important role of private transfers.

5 Appendix

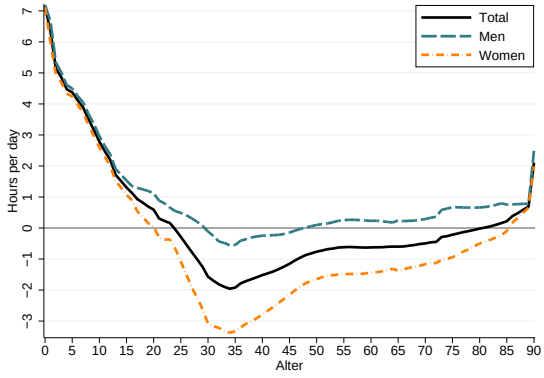

Figure A-1: Net non-market transfers by age and gender in hours per day

Table A-1: Data for Figure 2, 5 and 7

	Population with dependent children by age of youngest child				Population without dependent children		
	Age 0-4	**Age 5-9**	**Age 10-14**	**Age 15+**	**Age 20-39 own inc.**	**Age 40-64 not retired**	**Retirees**
Figure 2: Final disposable income and private market transfers (Euro per year)							
Disposable income	24,833	30,371	35,424	37,913	22,072	33,098	27,346
Private market transfer contributions, net	7,265	10,162	11,811	12,377		1,426	180
Final disposable income	17,568	20,209	23,613	25,536	22,929	31,672	27,166
Figure 5: Total work and private non-market transfers (hours per day)							
Total work	9.4	9.5	9.1	8.6	8.8	8.1	4.8
Non-market work for others	3.8	2.8	1.5	1.2		0.4	0.4
Non-market work for own consumption	1.6	1.8	2.3	2.3	2.1	2.8	4.1
Marekt work	3.9	4.9	5.3	5.1	6.7	5.0	0.3
Total final disposable income and total transfers (market + non-market, Euro per year)							
Total disposable income (m + nm)	52,401	54,483	55,531	56,300	32,917	49,377	50,580
Net transfers to others	26,425	24,969	19,832	18,380		3,005	1,214
Final disposable income (m + nm)	25,976	29,514	35,699	37,920	33,774	46,373	49,365

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