

# INTERGENERATIONAL REALLOCATION OF RESOURCES

LILI VARGHA – RÓBERT IVÁN GÁL

## MAIN FINDINGS

- » In 2010, Hungarian men had their highest per capita labour income in their thirties. Those older received somewhat less labour income, primarily due to their lower employment rate. These averages apply not only to those employed, but to the entire population of the respective age. Men in their thirties came out on top not because of their earnings, but because of their higher employment rate. Women show a different pattern: those in their forties have the highest labour income – higher than that of women in their twenties and thirties – which can also be attributed to employment. These observations apply to 2010, since performance on the labour market is compared to unpaid household labour – and the most recent available statistics for the latter are from 2010.
- » The difference in labour income and household production between men and women varies by age. The difference between men and women is largest when they are in their late twenties and thirties, when women are most likely to be at home with small children. The labour income of women compared to men is the lowest at this period of the life-cycle, while their household production is the highest.
- » Men are active – that is, they produce more than they consume – from the age of 24 to 58; for women, this period falls between the ages of 26 and 56.
- » Women give time transfers (that is, they provide unpaid household services for others) at almost every age, from 17 to 71; for men, this period falls between the ages of 29 and 56.
- » On average, men aged 57 or older receive 14% of the annual labour income of an average individual in their prime earning years in the form of time transfers – primarily from their spouse/partner. However, this figure is dwarfed by the average amount of net household goods and services received by children aged 0–17, which was 57% of the labour income of individuals aged 30–49 (our standard reference income applied throughout the chapter).
- » In its first year of life, an infant receives a daily average of nine hours of household services as time transfer. Translated into labour market income, this works out at 133% of the reference income – i.e. significantly more than the annual labour cost of an average individual in his/her most productive years.

- » Compared to Spain and the Netherlands, the difference between the sexes with regard to parenting time (caring, playing, helping with homework, talking, etc.) before the age of 40 is greatest in Hungary. Over time, this difference decreases; and among grandparents, of the three countries considered the difference is smallest in Hungary.
- » There is an obvious division of labour in terms of intergenerational transfers between men and women. Men primarily provide public and private transfers, while women contribute to the intergenerational reallocation of resources with household labour. Considering all channels, it can be said that the value of transfers provided by active men and women in Hungary is basically equal.
- » If only transfers that appear among the components of national income are taken into consideration, we get a distorted picture of the contribution of the two sexes. If time transfers from unpaid household work are disregarded, the consumption of children and the burden of active individuals, especially women, are significantly underestimated.

## INTRODUCTION

Below, we examine the Hungarian system for reallocating resources between overlapping generations covering the entire economy – that is, both the national economy (commonly referred to as ‘the economy’) and the household economy (unpaid household labour, which is not taken into consideration in determining the performance of the national economy). Here we use figures for 2010, since performance on the labour market is compared to unpaid household labour – and the most recent available statistics for that are from 2010. We calculate per capita production and consumption in the national and household economies by age and sex, and determine the amount and type of transfers being made between different age groups through the state, households and the corporate sector. There is special focus on the contribution of men and women to the intergenerational reallocation of resources, and we attempt to provide an international context for the Hungarian *resource reallocation system*<sup>6</sup> by presenting data for some other European countries. Our analysis is cross-sectional – that is, we do not follow age groups throughout their lives, but rather the transactions of individuals of active and inactive age in a period of time.

The framework for the analysis is provided by the international research programme of National Transfer Accounts (NTA) (Lee and Mason 2011), which follows its own, internationally accepted, methodological conventions to analyse the

intergenerational reallocation of resources calculated from various components of the national economy.<sup>1</sup> Just as the system of *National Accounts*<sup>6</sup> is supplemented by the Household Satellite Accounts (i.e. estimates about the value of unpaid household labour), so the NTA is supplemented by the so-called National Time Transfer Accounts (NTTA), which reveal the value of invisible transfers – that is, *time transfers*<sup>6</sup> (as they are commonly termed in international academic literature): namely, the amount of household labour each age group performs for, and receives from, another age group. Estimates are based on time use and salary data; they also follow standards (Donehower 2014); and are available by sex for many countries.

Cross-sectional data about the national economy are taken from the European AGENTA project<sup>2</sup> database (Istenič et al. 2017). This database contains estimates for 25 European countries that are based on harmonized European data, like European National Accounts, the European Union Statistics on Income and Living Conditions (EU-SILC), the Household Budget Survey (HBS) and administrative data downloadable from the homepage of Eurostat. Cross-sectional estimates for the household economy of Hungary were calculated by Gál et al. (2017), while international data come from the calculations of Vargha et al. (2016). The latter data, as with other international sources, are also based on harmonized European data, and can be downloaded from the AGENTA project’s database.

<sup>1</sup> A detailed description of the method is presented in the UN’s manual (United Nations 2013). Further information is available at [www.ntaccounts.org](http://www.ntaccounts.org).

<sup>2</sup> The AGENTA project was part of the National Transfer Accounts project, in which the Hungarian Demographic Research Institute participated. The project’s homepage is : <http://www.agenta-project.eu/en/index.htm>.

## AGE PROFILES OF LABOUR INCOME AND CONSUMPTION IN THE NATIONAL ECONOMY

*Figure 1* shows the average per capita labour income and consumption by age and sex in 2010 as a percentage of the average per capita labour income of the age group 30–49 (which we will use as a reference income throughout this chapter). Due to its analytical significance, we also indicate the difference between these two values – that is, the so-called *life-cycle deficit/surplus*<sup>6</sup> – also by age. The calculations apply to entire age groups, so the aggregate values are divided not just among individuals with labour income (or consumers), but among every individual of a given age – even those who do not have labour income (or perhaps do not consume). Normalization of age group-specific values by the per capita value of the labour income of individuals aged 30–49 facilitates longitudinal and cross-country comparison. Values by sex are normalized using the same constant. Data are cross-sectional – that is, they show the values for overlapping cohorts in 2010, rather than the values for a given cohort over its life-course.

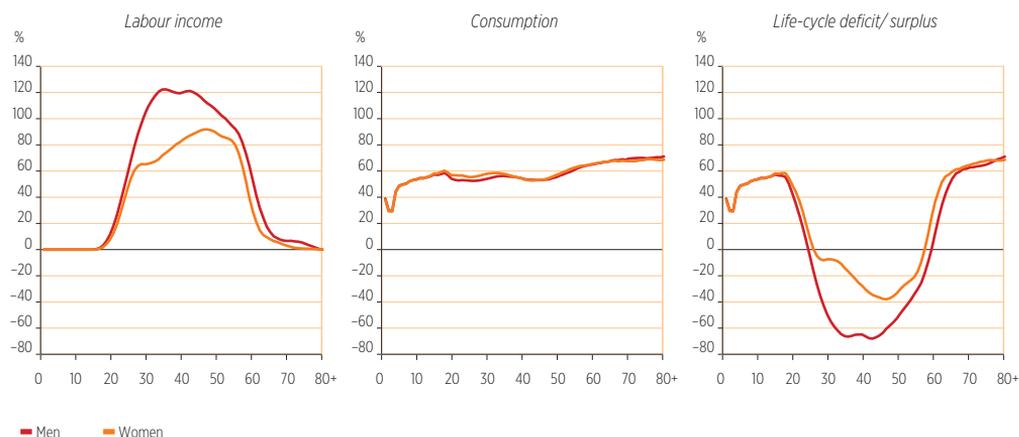
Although both sexes earn their labour income (which here includes all taxes and contributions levied on labour – in short, total labour costs) while active, the age profiles of men and women are significantly different (*Figure 1*, left-hand panel). Per capita labour income of men is highest among those in their thirties (over 120% of the reference income) and is slightly lower among older age groups; meanwhile, in the case of women, labour income is highest among those in their forties. The biggest difference between women and men comes in the late twenties and thirties – an age when women are most likely to stay at home (see

the text box on ‘Factors influencing the age profile of labour income’). The middle panel of *Figure 1* shows that per capita net (i.e. tax-free) consumption (including the consumption of the value of services provided by the state and the imputed rent of owner-occupied accommodation) is broadly age neutral (unlike labour income). The consumption of children is highest between the ages of 14 and 18, amounting to 58% of the labour income of the 30–49 age group. Consumption increases slightly with age from the mid-forties, rising to 70% of the reference income, which is partly due to differences in household structure (primarily children moving out).

The difference between average per capita consumption and labour income (the above-mentioned life-cycle deficit/surplus) determines whether a given age group can be considered active or inactive (*Figure 1*, right-hand panel). Generations with a life-cycle deficit cannot finance their consumption from their labour income and need the resources reallocated from active age groups that have a life-cycle surplus. Male age groups are active between the ages of 24 and 58, and consequently produce more than they consume; among women, the period lasts from between the ages of 26 and 56.

An analysis of production and consumption values calculated exclusively from the components of national income by age and sex reveals that men – due to their bigger life-cycle surplus in active age – finance the consumption of inactive individuals to a greater degree. In other words, the intergenerational resource reallocation system not only transmits resources from those active to those inactive, but also from men to women. Obviously, however, these observations paint a distorted picture, since they only consider the national economy, and

Figure 1: Per capita age profiles of labour income, consumption and life-cycle deficit/surplus, by sex in Hungary, 2010



Source: Istenič et al. (2017).

Note: Calculated as a percentage of the average per capita labour income of individuals aged 30–49.

disregard unpaid household labour. That is, they confound the evaluation of sex-specific contributions to the intergenerational resource reallocations. For this reason, we

will supplement our calculations with the age profiles of the household economy by sex.

## FACTORS INFLUENCING THE AGE PROFILE OF LABOUR INCOME

The left-hand panel of *Figure 1* shows an unusual phenomenon: an age profile of labour income that declines among working-age people from younger – those in their thirties and early forties – towards older age groups. However, this applies only to men, and it does not appear when the data for the two sexes are combined (not shown on the diagram). The age profile of labour income descending to the right in the active years is the opposite of the common seniority-based payment practice, which offers older, more experienced employees higher earnings. *Figure B1* illustrates the possible causes. As mentioned above, the age profile of

labour income projects the total labour costs (including contributions) of a given age group onto the entire age group (not just those employed). Therefore, its shape depends on both the earnings and the employment rate of each age group. Consequently, both of these components are included in *Figure B1*, alongside labour income. Due to lack of data we calculated the age profile of earnings by dividing labour income by the employment rate. In order to ensure comparability, we used the normalization method described above. The age-specific employment rate was presented as a percentage of the employment rate for individuals aged 30–49 years; meanwhile age-specific earnings are shown as a percentage of the average labour income of individuals aged 30–49 years.

The curves indicate that the declining age profile of male labour income in working ages is primarily caused by the employment rate. Although seniority ceases to affect earnings above the 40–44 age group, in 2010 an average male employee in his fifties cost his employer no less than a colleague 20 years his junior. However, the likelihood that a man in his fifties was working was smaller.

Figure B1: Age-specific per capita labour income, employment rate and earnings per employee among men aged 25–59, 2010



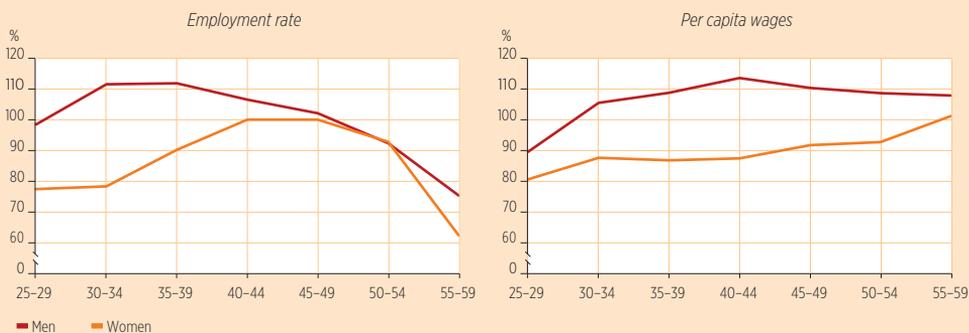
Source: Istenič et al. (2017) and authors' calculations based on 2.1.4i data table of HCSO.

Note: Calculated respectively as a percentage of per capita labour income and the employment rate of individuals aged 30–49, and the per capita labour income of employees aged 30–49.

The same decomposition can be used to analyse the differences between the male and female age profiles of labour income in the left-hand panel of Figure 1. The question is similar: whether the significant distance between the two curves is caused by differences in the employment rate or in earnings. The two panels of Figure B2 suggest that in 2010, among individuals aged 25–35, the difference in labour income of the two sexes was caused more by the difference in their employment rates than by the difference in earnings. However, the employment rate of the 45–55 age group is almost identical for the two sexes. In this case, the difference in labour income is due solely to differences in earnings.

As mentioned, our diagrams are cross-sectional, depicting the situation in 2010. It would be misleading to derive conclusions about the life-course. It may be the case that the lower earnings of women aged 45–55 are a result of the fact that their employment rate was lower when they were of childbearing age. However, this cannot be explicitly stated on the basis of these figures. That would require information about the situation 20 years ago.

Figure B2: Age group-specific employment rate and per capita wages of employees among men and women aged 25–59, 2010



Source: Istenič et al. (2017) and authors' calculations based on 2.1.4i data table of HCSO.

Note: Calculated respectively as a percentage of the employment rate of individuals aged 30–49, and per capita labour income of employees aged 30–49.

## AGE PROFILES OF HOUSEHOLD PRODUCTION AND CONSUMPTION

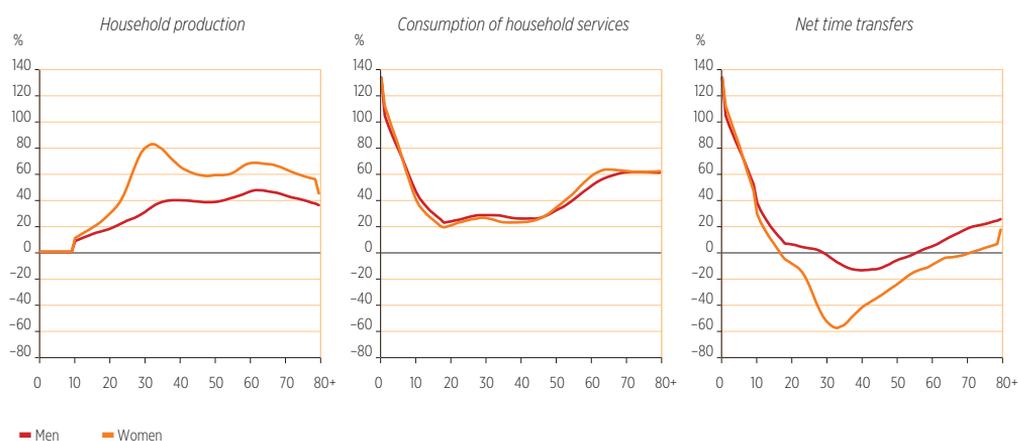
Figure 2 shows the average per capita values by age and sex for household production and the consumption of goods and services produced by the households, as a percentage of the reference income. Once again, we present the difference between consumption and the value of labour in the right-hand panel; academic literature refers to this as net time transfer (or time transfer, for short) in the case of the household economy. Calculations are based on the time spent on unpaid household labour activities (e.g. cooking, washing, cleaning, shopping, childcare, etc.) and the labour market wages for the various activities. As with previous figures, the numbers reflect the cross-sectional values for per capita household production, consumption and time transfer in relation to the entire population. This includes not only those individuals who actually undertook unpaid household labour, but also those who did not.

The left-hand panel of Figure 2 shows that in 2010 overall women worked more

in the household than did men; but it is also apparent that the difference between the two sexes varies by age. As with the age profiles for labour income, the biggest difference is between men and women in their late twenties and early thirties (when women are most likely to be at home with children). This is the period when the labour income of working-age women is at its lowest, but their household production is at its highest. At this age, women produce a value in the form of unpaid household labour equivalent to 77% of the reference income; by contrast, men of the same cohorts produce 35%. The difference in household production between men and women decreases with age, although it increases slightly in the early sixties. A bimodal age profile is more typical of women than of men.

The middle panel shows that the difference between the sexes is insignificant in terms of their consumption of household services. The consumption of such services is high in the case of small children, with the youngest receiving the most time transfers; these become less over time. In its first year,

Figure 2: Per capita age profiles of household production, consumption of household services and net time transfers, by sex in Hungary, 2010



Source: Gál et al. (2017).

Note: Calculated as a percentage of average per capita labour income of individuals aged 30–49.

an infant receives an average of 133% of the reference income in time transfers – i.e. more than the total annual labour cost of an individual in the most productive years. This indicator falls to 80% for a 5-year-old and to 33% for a 10-year-old. These are the equivalents of ‘consuming’ each day 9, 5.1 and 2.9 hours of household labour, respectively, in the age groups mentioned (see the middle panel of *Figure 4*).

The right-hand panel of *Figure 2* shows net time transfers by sex: the difference between average per capita household production and consumption determines whether an age group can be considered to give or receive time transfers. The panel clearly shows that women of active age finance the household economy. While on average women give net time transfers from the age of 17 to 71, this is true of men between the ages of 26 and 56. Men aged 57 or older received the equivalent of 14% of the reference labour income in time transfers in 2010. However, this is dwarfed by the value of household services received by children aged 0–17 – 57% of the reference income in 2010.

Since invisible time transfers not included in the National Accounts flow within the household between relatives – first and foremost, from parents to children – disregarding them would give a distorted picture of the accounts of those raising children. Just as calculations that disregard households and unpaid household labour underestimate the real value of resources given to children (Gál et al. 2018), so resources given by those raising children are also grossly underestimated in the currently available statistical system. Elements excluded from calculations are missing twice: once in the case of the recipients (namely the children) and once in the case of the sender (i.e. those

bringing up children). As we have seen, this distortion has a significant gender aspect, especially in the case of unpaid labour. The accounts of women show a significant deficit if household labour is disregarded. Furthermore, unpaid labour flowing towards elderly men – primarily provided by their cohabiting partner is also missing from statistical standards.

### AGE PROFILES OF MARKET LABOUR INCOME AND CONSUMPTION IN INTERNATIONAL COMPARISON

The downloadable database of the AGENTA project, which uses internationally harmonized data, makes it possible for us to compare the age profiles of Hungarian men and women (presented above) with those of other European countries, with regard to both the national and the household economy. *Figure 3* shows the estimates for labour income, consumption and life-cycle deficit/surplus of Hungarian, Spanish and British<sup>3</sup> men and women by age for 2010. In order to make comparisons, per capita values are related – as before – to the average per capita labour income of the 30–49 age group of the respective country. Age distributions are very similar: individuals of active age have more labour income, while consumption is fairly even across the different age groups. However, there are significant differences by country with regard to the gap between male and female age profiles. In the United Kingdom, where the labour income of men is the highest in relative terms in the three countries considered, the male age profile reaches its maximum at the age of 40–42, with a steady increase before and a steady decrease after that. However, in Spain the cross-sectional

<sup>3</sup> For simplicity's sake, all residents of the United Kingdom are referred to as British in this chapter.

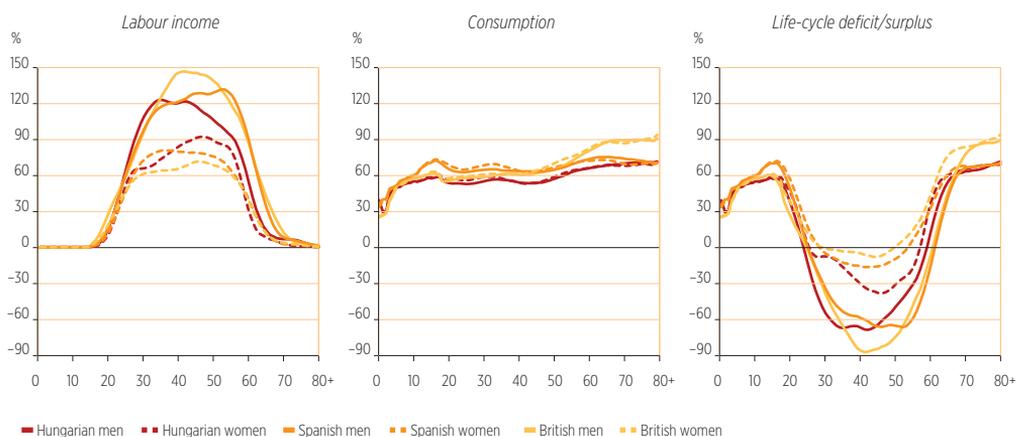
age profile of male labour income increases until the age of 52–53. Both countries differ from Hungary, where men in their thirties received the most labour income in 2010.

Female labour incomes are also different: whereas in Hungary and the United Kingdom, the cross-sectional age profile of female labour income increases from the mid-twenties to the mid-forties, in Spain the labour income of women at different ages is fairly even. Comparison of the three countries reveals that the biggest difference between the labour income of men and women is in the United Kingdom (and incidentally, this is one of the biggest in the EU). Of the three countries included in the diagram, the difference is smallest in Hungary (it is even smaller in Slovenia, not shown on the diagram). Analysis by age group also reveals that the distance between men and women changes over time. Whereas in Hungary and the United Kingdom, the differences decrease from the thirties and the early forties, respectively, in Spain the differences increase until the mid-fifties. The left-hand panel also shows that in Spain and

the United Kingdom, individuals (especially men) remain active for longer than in Hungary. Just in passing, the oldest active age group with labour income in the EU is to be found in Sweden (not shown here).

Consumption in relation to the reference income is lowest in Hungary at all ages. Consumption during childhood and adolescence is highest in Spain; and in the case of individuals in their fifties or older, consumption is highest in the United Kingdom (*Figure 3*, middle panel). The life-cycle deficit/surplus curves also show significant differences between the three countries (*Figure 3*, right-hand panel). Among women, the British contribute the least and the Hungarians the most to the consumption of those of inactive age; the ranking is the opposite among men. Besides intergenerational resource reallocation, the redistribution of resources between the sexes – flowing from men to women – is also apparent in every country. The right-hand panel shows that of the three countries, this is most typical of the United Kingdom and least typical of Hungary.

*Figure 3: Per capita age profiles of labour income, consumption and life-cycle deficit/surplus, by sex, in Hungary, Spain and the United Kingdom, 2010*



Source: Istenič et al. (2017).

Note: Calculated as a percentage of the average per capita labour income of individuals aged 30–49.

There are marked differences among the countries with regard to when the inactive period begins and ends for the two sexes. In cross-country comparison, the youngest active age group is that of Hungarian men, with their average labour income already exceeding consumption from the age of 24; they are followed by British and Spanish men, at age 25. Hungarian women are also relatively young – 26 years – when they commence their active period, compared to 29 in Spain and 30 in the United Kingdom. British women are the youngest to become inactive again (at age 50), followed by Spanish (54) and Hungarian (57) women. The oldest active male age group is 58 years in Hungary, 60 years in the United Kingdom and 61 years in Spain.

#### AGE PROFILES OF HOUSEHOLD PRODUCTION AND CONSUMPTION IN INTERNATIONAL COMPARISON

Hungarian age profiles of household production have so far been presented in relation to the value of market labour, to render them fully comparable with age profiles of production and consumption calculated using elements of national income. Since NTTA calculations are based on time-use surveys, they not only present estimates for the value of market labour, but also for the time spent doing it. The following international comparison is based on time (on an average day, in hours) rather than reference income (*Figure 4*). Once again, three countries will be discussed, using Hungarian and Spanish data from 2010 and Dutch data from 2005.<sup>4</sup>

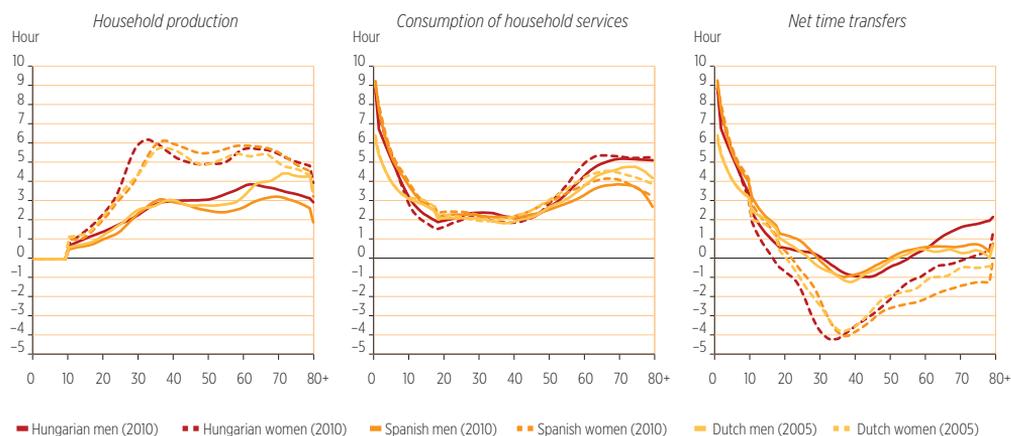
With regard to the age profiles of household labour, it can be said that the patterns are basically similar in the

different countries. Women tend to have a bimodal age profile – highest at the time of childbearing and in the early years of retirement; among men, this type of curve is not so typical – male household production in old age is higher than at the time of starting a family. Consumption is almost identical for the two sexes: highest in childhood; lowest during the active years; and once again rising in old age. In all three countries, adult men barely provide time transfers for others, whereas adult women provide household services for others at almost every age. The biggest difference between the sexes in this respect is in the thirties, when women spend a lot of time raising children and doing other housework. Although these aspects of household labour are typical of all the European countries under consideration, in terms of their extent there are differences, which can be related to the cultural and institutional background of the countries in question.

The age profile of female household production reaches its first peak earlier in Hungary than in either the Netherlands or Spain: while Hungarian women aged 32 spend a little over six hours a day doing unpaid household labour, that level is reached by Spanish women only when they are aged 37. The primary reason for the difference between the countries is that Hungarian women on average tend to have children earlier. (See the text box entitled ‘Age profiles of parenting time and related consumption in international comparison’ and *Figure B3* for relevant age profiles.) The Hungarian and Dutch female age profiles decrease with age following childbearing more significantly than the age profile of Spanish women. Spanish and Dutch men spend more time raising children in their thirties and

<sup>4</sup> Harmonized time-use data used for estimates of international age profiles (Multinational Time Use Survey) are updated with a lag, which is why data for 2010 are only available for Spain. The reason for choosing the Dutch (2005) age profiles (along with the Hungarian and Spanish), was to show significantly different results from those for Hungary.

*Figure 4: Per capita age profiles of household production, consumption of household services and net time transfers, by sex, in Hungary (2010), Spain (2010) and the Netherlands (2005) on an average day, in hours*



Source: Vargha et al.(2016); Gál et al. (2017).

forties than their Hungarian counterparts; that is why we can find a more significant increase during these years in the age profile of their total household production. Although male household production is higher in older age than in younger age, in the Netherlands it is so significant from the early sixties that it reaches almost the level of female production. At the age of 72, Dutch men spend an average of 4.5 hours a day doing unpaid household labour, with women doing only 20 minutes more. Thus, gender differences in old age are much smaller in the Netherlands than in Hungary or Spain. This smaller gender difference in the Netherlands does not stem primarily from an increased contribution of grandfathers to raising children, but rather from other household activities (see *Figure B3*).

There are bigger differences regarding consumption at the youngest age and in older age groups. While Spanish and Hungarian children aged 0–2 receive an average of 8 and 7.5 hours, respectively,

of unpaid household services a day, Dutch children of the same age receive only 6.3 hours a day. As with parenting time, these differences are also related to the family support system and per capita parenting time received by children (see the text box below and *Figure B3*). Per capita consumption in old age is the highest in Hungary and the lowest in Spain. The right-hand panel of *Figure 4* shows the ages at which men and women provide household services. In all three countries women provide net time transfers throughout adulthood, whereas men typically do so only in their thirties and forties – or in Hungary, for somewhat longer (until their mid-fifties). An even bigger gender difference can be found in the early 2000s in Italy, for example, where not a single male age group provided net time transfers for others (Vargha et al. 2017). The right-hand panel of *Figure 4* also shows that elderly Hungarian men receive the most time transfers, which are primarily provided by older women.

## AGE PROFILES OF PARENTING TIME AND RELATED CONSUMPTION IN INTERNATIONAL COMPARISON

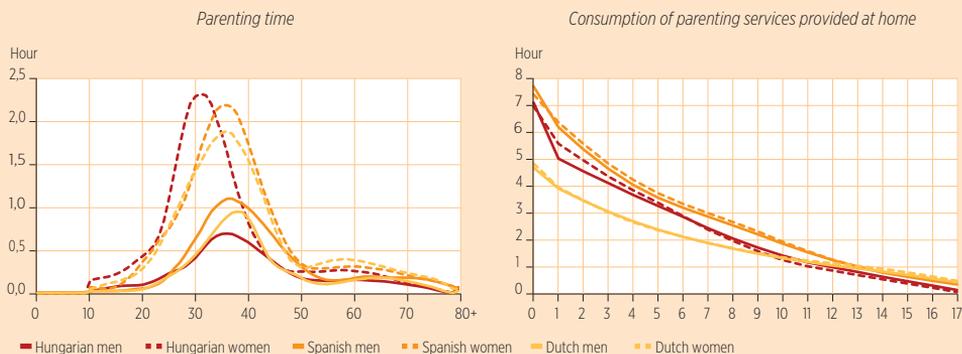
NTTA calculations not only draw the age profiles of total household production, but also include separate age profiles of parenting time, other household labour and unpaid household labour performed for other households (inter-household time transfers). *Figure B3* below shows parenting time, and the consumption of these domestic parenting services by sex and age in Hungary (2010), Spain (2010) and the Netherlands (2005) on an average day in hours.

As mentioned above, the age profile of female household production reaches its first peak in Hungary sooner than in the Netherlands and Spain. This difference is also clearly visible from the age profile of parenting time: in Hungary 31-year-olds spend the most amount of time with children, an average of 2.3 hours daily; in Spain it is the 35-year-olds with 2.2 hours, and in the Netherlands, it is the 36-year-olds with

1.9 hours. On average, Hungarian women tend to have children sooner. In 2010, the average age at which a woman gave birth was 29.3 years in Hungary, 30.6 years in the Netherlands (in 2005) and 31.2 years in Spain (according to Eurostat data). This strongly correlates with parenting time, which is the most in the case of infants. Age profiles also show that during childbearing age on average Hungarian and Spanish women spend more time parenting than Dutch women. Differences between countries are partly due to different family support systems. In European comparison the proportion of children aged 0–2 years receiving institutional daily care is among the highest in the Netherlands (56% in 2014), while in Spain and especially in Hungary their share is much lower (38% and 15% respectively in 2014, according to the OECD Family Database). In the Netherlands, mothers return to work sooner than in Hungary.

As regards the age profiles of male parenting time, the involvement of Spanish fathers is the strongest, with an average of one hour daily during their late thirties and early forties. They are followed by Dutch and

*Figure B3: Age profiles of parenting time provided and consumed, by sex, in Hungary (2010), Spain (2010) and the Netherlands (2005) on an average day, in hours*



Source: Vargha et al. (2016); Gál et al. (2017).

Hungarian fathers. This is also partly related to the family support systems. According to the data for 2016 of the OECD Family Database, while Spanish fathers receive 2.1 weeks' paid paternity leave, Hungarian fathers receive 1 week and Dutch fathers only 0.4 week. Furthermore, while in Spain an average of 56 fathers (for every 100 live births) took the parental leave financed by the state in 2013, in Hungary it was only 25 (with no data available for the Netherlands). The difference between the two sexes with regard to parenting time before the age of 40 is the biggest in Hungary: it becomes smaller with age, and in case of grandparents the difference is the smallest. Dutch grandmothers spend the most amount of time with their grandchildren, followed by Spanish and then Hungarian grandmothers (*Figure B3*, left-hand panel).

The various family support systems and the difference between men and women with regard to parenting time also affect how children receive domestic parenting services (*Figure B3*, right-hand panel). An infant receives an average of 7.5 hours of care a day in Spain, 7 hours in Hungary and less than 5 hours in the Netherlands. The age profiles of the consumption of parenting services quickly decrease with age in all three countries; a Hungarian 6-year-old receives an average of somewhat less than three hours of parenting time. The decrease in the per capita consumption of parenting services above the age of six is the most significant in Hungary. According to estimates, adolescents in Spain and the Netherlands receive more parenting time than in Hungary.

## COMPLETE INTERGENERATIONAL REALLOCATION OF RESOURCES IN HUNGARY BY SEX

*Figure 5* shows various elements of net resource reallocation for the total population (panel 1) and by sex (panels 2 and 3). The area between the life-cycle deficit/surplus curve (including net time transfers) shown in *Figures 1* and *2* and the horizontal axis is filled with various transfers.

The resource reallocation system consists of transfers and asset-based income. Transmitting institutions are the state (*public transfers*<sup>6</sup>), households (*private transfers*<sup>6</sup>, time transfers) and the corporate sector (which can, in some circumstances, participate in transmitting private transfers). The state has an important role to play towards inactive generations, children and the elderly, regardless of sex. Older generations primarily receive pension and healthcare services in the form of public

expenditure; but they can also access general public goods. Older men tend to receive somewhat more public transfers than women. Public transfers cover much of the consumption of the elderly that they themselves cannot finance from their labour income, although in 2010 the various forms of asset-based income (primarily imputed rent from owning private accommodation) contributed significantly. Older women receive some private transfers, too, from their – typically older – spouses. There is a significant difference between men and women regarding the amount of time transfers they receive. While in the case of men, this contributes significantly to total consumption, it only applies to the oldest age group (80 or over) of women. Considering every channel of resource reallocation, overall older men receive more transfers than older women.

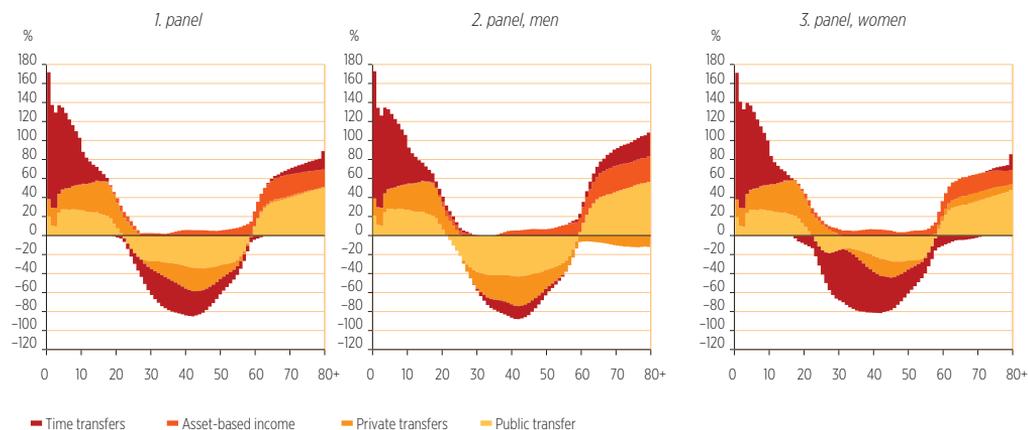
Beside general public goods, children receive public expenditure directly aimed at

them, in the form of public education and healthcare (regardless of sex), with the former being the more significant component. Even more important in providing for children are private transfers that finance their consumption. The significance of households in providing for children is also indicated by the significant value of time transfers. This is the most important component of a child's transfer package until he or she reaches the age of 10.

Figure 5 clearly illustrates the threefold burden that those of active age bear: they provide 1) for the public transfers to children and the elderly in the form of taxes and contributions; 2) for the consumption of their children through private transfers; 3) and unpaid household services (care and other housework), primarily for their

children. An analysis by sex reveals that there is a strong division of labour between men and women in this respect: men primarily shoulder the public and private transfers, while women contribute through household labour. The value of the transfers provided in active age by men and women is fairly even. If we consider only transfers that feature among the elements of national income, we gain a distorted picture of how much the sexes contribute to providing for inactive individuals (Figure 5). Furthermore, we underestimate the consumption of children and the burden of those people of active age, especially women. That is why it is important to consider private and time transfers to be an integral part of the resource reallocation system.

Figure 5: Per capita public, private and time transfers, and asset-based income in Hungary in relation to the entire population and by sex, 2010



Source: Istenič et al. (2017); Gál et al. (2017).

Note: Calculated as a percentage of average per capita labour income of individuals aged 30–49.

## GLOSSARY

*Life-cycle deficit/surplus:* The difference between average per capita consumption and labour income in each age. Ages with a life-cycle deficit are considered inactive (the difference is positive - i.e. consumption exceeds labour income); ages with a life-cycle surplus are considered active (i.e. labour income exceeds consumption).

*National Accounts:* The macro-economic statistical system of National Accounts describes economic activity, by presenting the complex system of production, reallocation and use of income as the reallocation of resources between institutions, primarily the government, companies and households (including non-profit institutions serving households).

*Private transfers:* Transfers of market goods provided by households, including reallocations both between members of a household (intra-household) and

between households (inter-household). Private transfers reallocate items that are taken into account in the national income.

*Public transfers:* Public expenditure and taxes: that is, transfers provided by the state, including public services.

*Resource reallocation system:* A multi-channel institutional system through which consumption in childhood and old age, when labour and capital income are inadequate, can be financed by the flow of resources from the working-age population to the population of inactive age. It includes the public tax-transfer system, private intra- and inter-household transfers, and a variety of organizations from the insurance, capital and estate markets.

*Time transfers:* Unpaid household labour done for or received from another member of the household or another individual outside the household.

## REFERENCES

- Donehower, G. (2014): *Incorporating Gender and Time Use into NTA: National Time Transfer Accounts methodology*. University of California Dept. of Demography, Berkeley [Manuscript].
- Gál, R.I., Szabó, E. and Vargha, L. (2017): Láthatatlan transzferek: ki adja, és ki kapja a háztartási munkát [Invisible transfers: Who gives and who receives household labour]? In G. Vukovich (ed.): *Háztartási munka, önkéntes munka, láthatatlan munka II. Háztartási szatellit számla, 2010 [Household Labour, Voluntary Work, Invisible Labour II. Household Satellite Account, 2010]*. Budapest, 108–116.
- Gál, R.I., Vanhuyse, P. and Vargha, L. (2018): Pro-elderly welfare states within child-oriented societies. *Journal of European Public Policy*, 25(6): 944–958.
- Istenič, T., Hammer, B., Šeme, A., Lotrič Dolinar, A. and Sambt, J. (2017): *European National Transfer Accounts*. <http://www.wittgensteincentre.org/ntadata>
- Lee, R.D. and Mason, A. (eds) (2011): *Population Aging and the Generational Economy: A global perspective*. Edward Elgar, Cheltenham and Northampton.
- United Nations (2013): *National Transfer Accounts Manual: Measuring and analysing the generational economy*. United Nations, New York.
- Vargha, L., Šeme, A., Gál, R.I., Hammer, B. and Sambt, J. (2016): *European National Time Transfer Accounts*. <http://www.wittgensteincentre.org/ntadata>
- Vargha, L., Gál, R.I. and Crosby-Nagy, M. (2017): Household production and consumption over the lifecycle: National Time Transfer Accounts in 14 European countries. *Demographic Research*, 36(32): 905–944.