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Differences in Income Sources of the Elderly in East and West Germany: Evidence from NTA

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Abstract

For some decades the income sources of elderly people in Germany have been dominated by public pensions. This is especially true for the former eastern German pensioners. With the Reunification, eastern Germans experienced an adaption to the Western German social insurance system. They exclusively rely on public transfers whereas western pensioners accumulated additional assets. Furthermore among former eastern Germans age 45+, the unemployment rates are significantly higher than their western German counterparts and thus the transfer dependency is higher. Intra-generational and intergenerational redistribution through asset holding or labor taxes result in considerable interstate monetary flows. This project seeks to quantify the differences in public transfers and asset holding in the East and West applying the National Transfer Account method. Although the wealth differences remain immens, we seek to identify a convergence of eastern German elderly towards the western Germans by estimating NTAs for 1990, 2003 and the years in between.

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1 Introduction

Throughout life, individuals show remarkably long periods of dependency (when consumption exceeds production) during childhood and old age (Lee et al., 2006). The required size of monetary flows to finance this dependency is large, intergenerational transfers amount to about one-half of national income (Mason, 2005). Generational Accounting (GA) was the first approach to study intergenerational relations in a broader concept (Auerbach et al., 1991, 1992, 1994, 1999). A more recent approach concerned with intergenerational relations is the National Transfer Account (NTA) Project. The theoretical roots are given by Samuelson (1958), Diamond (1965), Willis (1988), Lee (1994) and Bommier and Lee (2003). NTA incorporates public and private reallocation in a cross-sectional setting, based on a one year flow account, and makes effort to include the benefits from public goods. The accounting is consistent with the National Income and Product Accounts. An examination of the gap between consumption and income over the lifecycle leads to important insights about the social and economic institutions (e.g. what are the predominant redistributing institutions, magnitudes of different kinds of transfers, policy implications) that enable the economic flows between age groups that finance the large deficits at the beginning and the end of life (Lee et al., 2006; Mason, 2006).

This paper seeks to quantify the importance of public transfers in the portfolio of people age 45 and above and its differences between East and West Germany that emerged because of historical reasons. In November 1989, surprisingly after 40 years of divide, and in rapid development the Fall of the Berlin Wall took place, followed by the unification process of the former Federal Republic of Germany and the German Democratic Republic. The new Laender of eastern Germany had to manage quickly the transformation of state-owned, centrally planned and managed economic systems into functioning capitalist market economies (Baylis, 1993, p. 77). The unification was implemented with remarkable haste, already half a year after the Wall opening, the two Germanies signed a treaty on monetary, economic, and social union; the “GDR ceded its financial sovereignty to the Federal Republic and committed itself to building a ‘social market economy’, and bringing its tax, welfare and labor laws in line with the West’s” (Baylis, 1993, p.80). The economic unification including the extension of the West German mark to the GDR, as well as western social and economic benefits to the East was driven by the continuing waves of East Germans leaving for the West (Hanhardt, 1993, p. 226f.). Since then the topic of East and West never vanished from the agenda, mainly due to the different economic and demographic situation in the different parts. The eastern part until today suffers from outmigration of the young skilled people as well as poor economic performance and high unemployment rates whereas the conditions in the West are in general perceived to be better. The importance of the state as a mediating institution grew in the West and

was even more prominent in the East. The key role of the state is particularly valid for elderly people (65+), 80% of their total income comes from public transfers (pensions) (Börsch-Supan, 1992; Reil-Held, 2002; Börsch-Supan and Schnabel, 1999). The reliance of pensioners on the state is even more pronounced in the former eastern part, as in the GDR investments in other income sources were not prominent. Also for younger Eastern Germans public transfers still remain an important income source. State benefits for being unemployed due to higher unemployment rates, and single parent arrangements that are more likely to get additional public transfers are much more frequent (the proportion is twice as high as in the West) (Konietzka and Kreyenfeld, 2005), and hint at substantial differences between the two regions that need further investigation.

2 Materials and Methods

The estimates are based on national accounts and population estimates, both provided by the Federal Statistical Office (FSO) and the German Income and Expenditure Survey (Einkommens- und Verbrauchsstichprobe, or EVS). The national accounts published by the FSO follow the Europäischen System Volkswirtschaftlicher Gesamtrechnungen (ESVG) of 1995, which is based on the System of National Accounts of the United Nations (United Nations, 2002) of 1993. GDP is measured by the production and expenditure approach. (For information on the methodology, see Statistisches Bundesamt (2007). The population estimates are available in one-year age groups provided by the German Federal Statistical Office, and are based on an extrapolation of last census data. The last censuses carried out in the former Federal Republic of Germany and the former German Democratic Republic were in 1987 and 1981, respectively. Additionally, publications of the Ministry of Health and Education are used in cases in which the national accounts and FSO statistics do not provide sufficient information.

The microlevel survey data are obtained from the EVS of 2003. The EVS is conducted every five years by the FSO, and is based on a representative quota sample of Germany's private households. The EVS includes a detailed account of income by source, consumption by type, saving flows, and asset stocks by portfolio category. The EVS of 2003 includes around 50,000 households made up of some 127,000 individuals. The waves from 1993 onward include not only the former Federal Republic, but also a sample from the former German Democratic Republic. The survey is representative of households with a monthly net income of less than 18,000 euros. The EVS does not include very wealthy households (70,000 of 38.1 million households), persons with no permanent residence, or the institutionalized population. (For a methodological overview, see Statistisches Bundesamt (2005). For three months participating households keep a detailed book of household accounts that covers every kind of potential income and expenditure.

For comparative reasons (to other countries and within Germany) the NTA methodology will be followed to construct the estimates. The flow account identity is given by

$$\underbrace{Y^l(a) + Y^a(a) + \tau^+(a)}_{Inflows} = \underbrace{C(a) + S(a) + \tau^-(a)}_{Outflows} \quad (1)$$

where $Y^l(a)$ is the labor income, $Y^a(a)$ the asset income and $\tau^+(a)$ are the transfers received at each corresponding age a . $C(a)$, $S(a)$ and $\tau^-(a)$ are consumption, savings and transfers paid at each age. The inflows need to equal the outflows on the aggregate level of Germany. Rearranging 1 leads to

$$\underbrace{C(a) - Y^l(a)}_{\text{Lifecycle Deficit}} = \underbrace{Y^a(a) - S(a)}_{\text{Asset-based Reallocations}} + \underbrace{\tau^+(a) - \tau^-(a)}_{\text{Net Transfers}} \quad (2)$$

Age Reallocations

(Mason, 2006). In the separate LCD estimates for east and west we allow for flows in between the two parts as the eastern part receives subsidies and is also receiving flows via public expenditures for public transfers such as unemployment benefits of pensions.

A closer look into the reallocation mechanisms will enable us to determine, to what extent the Lifecycle Deficit is financed via public or private transfer channels for the people aged 45 and above, the leading institutions that reallocate between age groups, and their respective differences in East and West. The age profiles to compute the NTA (e.g. for income, consumption, public or private transfers, asset income) are drawn from survey data, then they are smoothed and adjusted to the corresponding macro control. For private consumption on education and health, data on the household level is available but is needed on the individual level, a method similar to Attanasio et al. (1999) is employed. Other consumption is allocated based on an allocation rule invented by Deaton and Paxson (1997). Our equivalence scale is more continuous but similar (Lee et al., 2006). For public consumption the information needed can be obtained by the Ministry of Education and the Ministry of Health. An issue to solve remains how to disentangle the interstate flows in detail, as we expect to find the public sector to play a bigger role in the eastern part for redistributing resources.

3 Preliminary Results for East and West

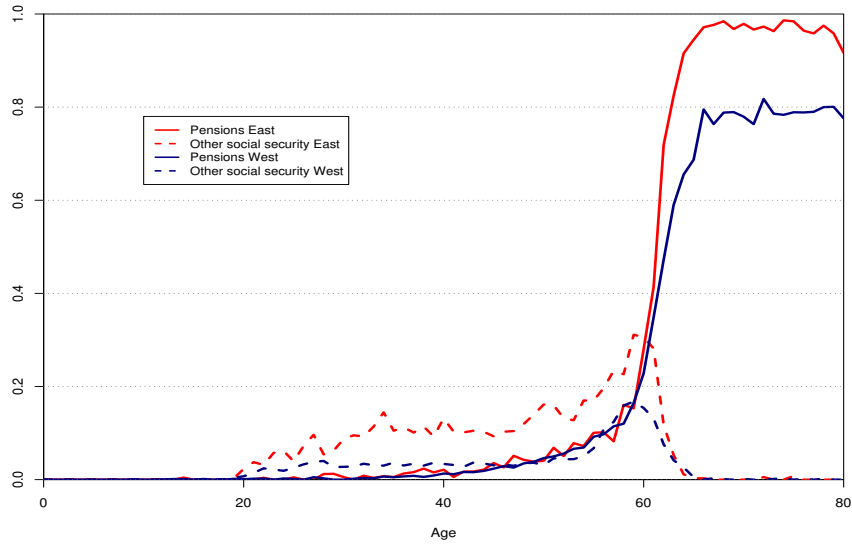
Figure 1 shows the main income sources (public transfers) in East and West by age, 13 years after Reunification. During childhood, until about age 16, consumption is financed by parents. In the East, 20 percent of the elderly live from unemployment benefits, another about 10 percent is participating in partial retirement programs. The values are

more than twice as high as for the western part. Pensioners in the East mainly live on public pensions, they virtually have no other income source. In the West it is only 80 percent and the category “other” including assets is more frequent.

The normalized lifecycle deficit for East and West Germany is shown in figure 2. The LCD is normalized to labor income of people age 30 to 49. The productive period starts one year later in the East and it ends already at age 55 which is 2 years earlier than in the western part. It is not only shorter but higher throughout all age groups. As wages are lower in the eastern part, a 15-year old consumes 70 percent of an average income of people age 30-49 whereas in the western part it is only 56 percent. These values are even higher for the elderly population. Above age 80 eastern pensioners consume almost 100 percent of an prime age adult income, in the western part it is only around 80 percent. Noteworthy is the dramatic decline after age 45 in the East. This is due to the high unemployment rates of the elderly as shown above. Another interesting aspect is the volatile profile for the East, it is by far not as smooth as the western normalized lifecycle deficit.

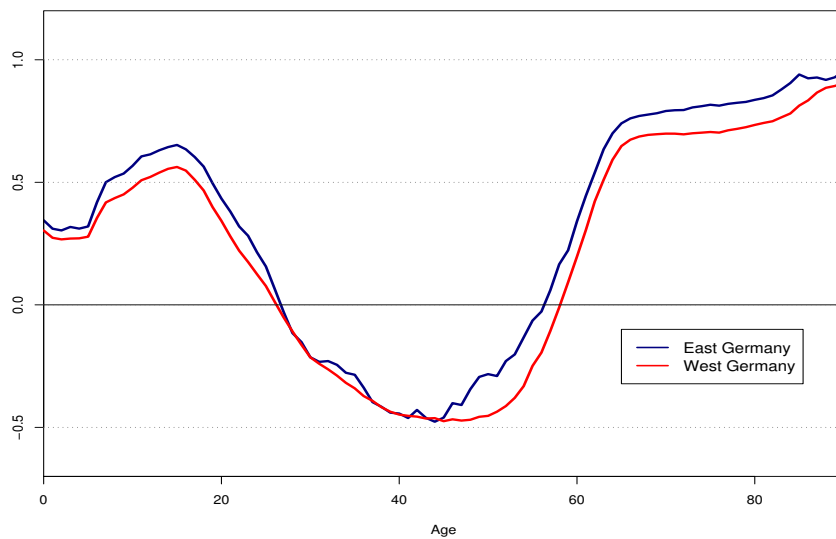
Figure 3 shows the per capita public transfer inflows and outflows by age. The inflows (including public in-kind and cash transfers) can be noted as not differing significantly whereas the outflows (labor, consumption and asset taxes) are much higher in the west resulting in a much higher net flow for a western German individual. In the case of public pensions it can be assumed that all German citizens will increase their savings rates due to the latest reform steps pronouncing the asset pillar of pensions as well as the increasing life expectancy, such that the gap between East and West might narrow in the future. On the aggregate level, the amount flowing from the West to the East is large if one not only counts the solidarity surcharge that is a direct tax amounting to about 12 billion p.a. until the year 2019. The more important flows are channelled through public consumption and cash transfers, and they amount to over 120 billion Euro p.a. and are of a more permanent nature. By quantifying the exact amounts flowing in between the two parts we hope to shed light on the present and future portfolio of the elderly in Germany and the implications for the individual and the economy.

Figure 1: Main Income Source in East and West, 2003



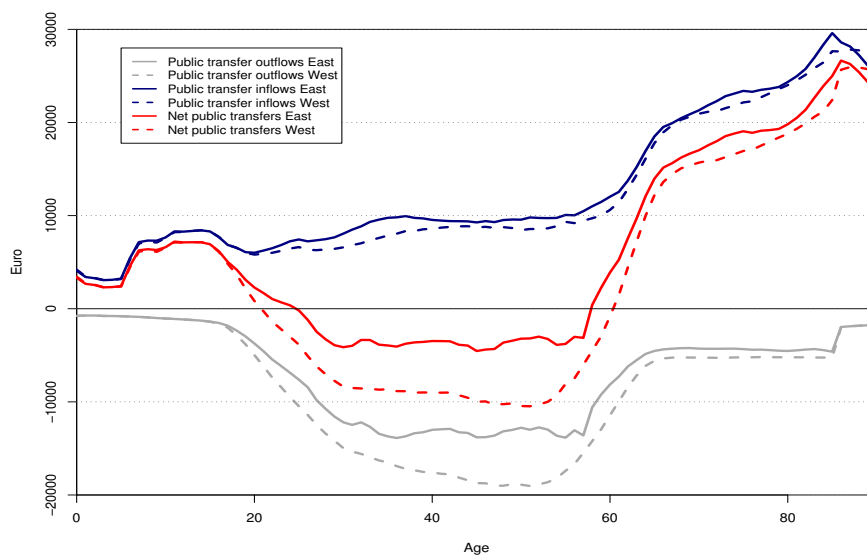
Source: EVS

Figure 2: Lifecycle Deficit, Germany (East and West) 2003, per capita values, preliminary



Source: EVS, National Accounts, author's own calculations

Figure 3: Public Transfers, Germany (East and West) 2003, per capita values, preliminary



Source: EVS, National Accounts, author's own calculations

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