LIVING STANDARDS IN RETIREMENT: ACCEPTED INTERNATIONAL COMPARISONS ARE MISLEADING – REVISED ESTIMATES BASED ON GERMAN AND AUSTRALIAN WEALTH DATA

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Abstract

Accepted international assessments of living standards in retirement rely on comparing pension incomes. These assessments conclude that European countries with relatively generous welfare provisions, including national contributory pension schemes, provide retirees with much higher living standards than the liberal Anglo-American regimes in which many citizens rely on flat rate old age pensions. The OECD, in particular, is critical of the low replacement rates and low ‘social adequacy’ of retirement incomes in the Anglo democracies.

Comparisons based solely on pension incomes are potentially misleading because the living standards of retirees depend on their total economic resources, particularly their wealth (net worth). In this paper we make use of the wealth data in the German (SOEP) and Australian (HILDA) panels in 2002. Germany is clearly an example of a ‘corporatist’ welfare regime with a large contributory national pension scheme. Australia is a liberal welfare regime in which two-thirds of retirees receive a safety net pension.

We re-estimate the living standards of retirees in the two countries, following an approach developed by Gruber and Wise (1999, 2004). This involves estimating the future lifetime income flows of retirees and integrating these estimates into more conventional ‘stock’ measures of wealth. Also included are estimates of future income-in-kind, notably homeowner imputed rents. The revised ‘present value’ estimates of wealth – ‘comprehensive retirement asset measures’ (CREAM) - suggest that Australian and German retirees are likely to have approximately the same living standards (mean and median), with much the same distribution (Gini).

INTRODUCTION

This paper arises from joint work by the German (SOEP) and Australian (HILDA) panel groups to try and improve our measures of household income and wealth, particularly for the purpose of making international comparisons. The broader context is the continuing effort being made by national statistical agencies, as well as academics, to develop more complete measures of income and wealth (Canberra Group, 2001). On the income side, this involves including benefits and subsidies in kind as well as in cash. On the wealth side, the aim in this paper is to take full account of all savings and future entitlements,
regardless of whether they are in the form of financial or non-financial assets, and regardless of whether their source is private or public.

The substantive focus of the paper is on living standards in retirement, specifically in Australia and Germany (Schwarze and Frick, 2000; Zaidi et al 2005). Using revised measures of income and wealth, we show that accepted international comparisons of retiree living standards, notably those issued by OECD in its annual volume Pensions At A Glance, can be quite misleading. The most quoted comparisons are based on the net (after tax) income replacement rates provided by the pensions of employees on average earnings.¹ The replacement rates are explicitly used as a measure of the social adequacy of retiree incomes. For 2002, the year in which the HILDA and SOEP wealth and income data used in this paper were collected, OECD reported that the average net replacement rate for workers on average earnings in member countries was 68.7%. Germany was just above the average on 71.8%, while Australia was well below on 52.4% (OECD, 2005a). A contemporaneous OECD publication Society At A Glance: OECD Social Indicators (2005b) reported that Australian seniors (65 and over) had lower equivalent incomes relative to the total population than seniors in any other member country.

The main policy conclusion invariably drawn from these comparisons is that those European countries, including Germany, which have relatively generous welfare provisions, including long standing national pension schemes, provide retirees with much higher living standards than liberal Anglo-American countries, including Australia, in which many citizens rely on flat rate old age pensions.

Using more complete data on incomes and (especially) wealth in the HILDA and SOEP panel surveys, we show that the living standards of Australian and German retirees appear to be about the same. This seems true whether the focus is on measures of central tendency (means, medians), or on measures of dispersion or inequality. The basic point

¹ Note, however, that the OECD itself regards pension wealth – the present value of the future stream of pension payments – as a preferable measure (OECD, 2005a). Our preferred approach is similar, but based on the total wealth (net worth) of retirees, not just their pension wealth.
is that the living standards of retirees depend on their total economic resources, and particularly their total wealth (net worth), not just on pension entitlements. Both the SOEP and HILDA panels have invested heavily in detailed measures of household wealth, so we are in a good position to assess the living standards of retirees, who more than any other population group, depend on accumulated wealth.

In order to make valid comparisons of the living standards of Australian and German retirees, we need to bring measures of wealth and income into a single unified account. This is particularly true, because as we shall see, the Australians have more wealth, while the Germans have more income. In principle, a single account could be achieved either by calculating the annual income flows likely to be derived from wealth stocks – this would convert everything to an income account - or by converting income flows into a stock measure (i.e. a wealth account). Here we use the second approach, implementing procedures developed by Gruber and Wise (1999, 2004) to arrive at the discounted present value of what they termed ‘social security wealth’, but which is here used for all components of income and wealth (CREAM – ‘comprehensive retirement asset measure’).

After giving short descriptions of the pension systems in both countries (Section 2), we define our extended measures of income and wealth (Section 3). Building up from conventional baseline measures of income and wealth, we demonstrate the empirical relevance of the extended measures for a more adequate assessment of the economic well-being of retirees (Section 4 – Results) and then conclude with potential policy implications (Section 5).

2. Some Stylized Facts about the Pension Systems of Australia and Germany

The German pension scheme reflects the social stability priorities of a corporatist welfare-capitalist state (Esping-Andersen, 1990; Goodin, Headey, Muffels and Dirven, 1999). Retirement incomes are highly correlated with working incomes and usually
maintain families at or close to their previous standard of living. Germany has a defined benefit (DB) pension scheme into which employees and employers make 50/50 contributions, amounting to 19.5% of the employee’s pay up to a cap of Euros 54,000 in West Germany and Euros 45,000 in the East. The funding is on a pay-as-you-go (PAYG) basis with current employees essentially funding the incomes of future retirees. As is well known, the ageing of the population in Germany, as in other European countries, means that there is a shortfall in the funding of estimated future pension entitlements. The Federal Government has already adopted a raft of measures to cope with this problem, including increases to social security contributions and increases in tax subventions to pension funds.

In Australia, reflecting the individualist and economic efficiency priorities of a liberal welfare-capitalist state, individuals who want a high standard of living in retirement have to make their own arrangements. About two-thirds of retirees still rely almost entirely on a flat rate old age pension, which is just intended to provide a ‘decent minimum’ living standard. This pension is means tested and is reduced if either incomes or assets go beyond quite low thresholds. The pension is adjusted for CPI and is also maintained at 25% of average full-time (male) weekly earnings. In 1992 the Australian Government introduced the Superannuation Guarantee, which is a type of national pension scheme, but very different from the German one. It is a defined contribution (DC) not a DB scheme, and despite the name, it does not guarantee any specific level of income/benefit upon retirement. Employers pay 9% of earnings on behalf of their employees into an employee designated superannuation (pension) fund. Employees choose their own funds, according to their preferred risk-return profile. Since no returns are guaranteed, the scheme cannot be actuarially under-funded. Employees’ investments may do well or badly. If they do badly, the flat rate old age pension provides a safety net.

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2 All information relates to 2002; the year for which the income and wealth data used in this article were collected. Tenured public servants (Beamte) have a separate non-contributory pension scheme.
3 About two-thirds receive the full pension. Another 14% receive a part-pension and live partly off their own savings. About 19%, mostly better off people, depend on private savings, including occupational and private superannuation.
4 This refers to the pension of a single person. Couples receive twice the single pension.
3. DATA AND METHODS

The data sets

The German Socio-Economic Panel (SOEP) is an ongoing panel survey with a yearly re-interview design (see Wagner, Frick and Schupp 2007, and http://www.diw.de/gsoep). The starting sample in 1984 was almost 6,000 households based on a random multi-stage sampling design; this includes an oversampling of immigrant workers from Mediterranean countries. In June 1990, only half a year after the fall of the Berlin Wall, a sample of about 2,200 East German households was added. In 1994-95, an additional subsample of 500 immigrant households was included to capture the massive influx of immigrants since the late 1980s. In 1998 and 2000 two random samples were added, which increased the overall number of interviewed households in 2000 to about 13,000. Finally, in 2002 a subsample of 1,200 high income households, representing the top 2.5 percentiles of the German income distribution, was interviewed for the first time, yielding a total of 23,900 individual interviews in about 12,700 households in the survey year 2002, the wave which our analyses are based on. Interviews are predominantly carried out as face-to-face, with CAPI becoming more increasingly relevant.

The Household, Income and Labour Dynamics in Australia (HILDA) Survey started in 2001 with just under 20,000 individuals in 7,700 participating households (Goode and Watson 2007; http://www.melbourneinstitute.com/hilda/). All household members aged 15 and over are interviewed annually face-to-face. HILDA is managed by the Melbourne Institute of Applied Economic and Social Research under contract to the Australian Government Department of Family and Community Services and Indigenous Affairs.

Incomes, including benefits in kind

The income data collected in HILDA and SOEP are quite comprehensive and directly comparable. Information is obtained about all main components of current and annual income: labour income, asset income, private transfers, public transfers and social security pensions. Direct taxes and (in Germany) social security contributions are imputed by data managers in order to derive annual net income.
For the purposes of this paper, we also ideally need information about income in kind. The SOEP team has for many years estimated the income advantage bound up in the imputed net rents of homeowners. More detailed analyses of the distributional impact of imputed rent in Germany show a mild decrease in poverty and inequality, especially among the elderly (Frick and Grabka, 2003). More recently and in line with the recommendations by the EU Commission, the near-cash value of rent subsidies received by tenants living in public/community housing, and also subsidies implicitly received by rent-free households in the private sector\(^5\), have been calculated using a hedonic regression approach (Frick, Goebel and Grabka 2007)\(^6\). Following this rationale, and aiming for cross-national comparability, the HILDA team has also recently estimated imputed rents for both homeowners and tenants. (The imputed rent data for both countries are now available on the CNEF files).

**Wealth**

HILDA and SOEP have obtained more detailed data on wealth – assets and debts - than other national household panels. In 2002 both panels collected information about non-financial and financial assets. HILDA has repeated its wealth module in 2006; SOEP has done so in 2007. The main non-financial assets about which respondents in both panels are questioned are their own housing and other residential property they may own, and also businesses and farms. The two panels differ somewhat in measuring financial assets. They both ask about bank savings and about assets held in the form of shares, managed funds, trust funds and the like, although HILDA goes into more detail, reflecting more widespread holding of such assets in Australia. Significantly for the purposes of this paper, the two surveys differ in their treatment of superannuation (old age) savings. In Australia it was considered feasible to ask directly about these savings, in part because

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\(^5\) A basic assumption embedded in this approach to grant “IR” to subsidized tenants and owners is that there will be no future change of residence for the rest of their life, i.e., the current state of housing is assumed to be fix.

\(^6\) In principle, the approach is based on a regression of rents paid by unsubsidized tenants in the private market. Applying the resulting regression coefficients to otherwise comparable owners and subsidized tenants and deducting all relevant costs (including the subsidized rent for tenants) allows for the computation of a fictitious net income advantage. For more details on this process as well as alternative approaches used in the EU-SILC dataset as of 2004, see Frick, Goebel and Grabka (2007).
everyone, regardless of age or retirement status, receives an annual statement of their value. In Germany it has so far been considered infeasible to ask about the future pension entitlements of people who are not yet retired. The current pension incomes of retirees are of course obtained in the income section of the survey.

A detailed account of how we compare the very different pension/superannuation data for the two countries is given below. Here we need to report on the quality of the wealth data in HILDA and SOEP. The obvious way to do assess quality is to benchmark survey data against statistics provided in the National Accounts of the two countries. When this has been done in the past, it has generally been found that assets are seriously under-reported in surveys (Juster, Smith and Stafford, 1999). The biggest problem appears to have been under-sampling of the wealthiest 2-3% of households who own a vastly disproportionate share of assets. This problem has been partly addressed in SOEP (but not HILDA) by drawing a special sample of high income households, many of which also have high net worth. A second problem is that wealth modules in surveys have usually been too brief, asking about assets only in broad categories. By asking in more detail in HILDA and SOEP, we hope to improve data quality.7

In the event it appears that both surveys benchmark satisfactorily against the National Accounts in measuring non-financial assets (mainly residential property), but both underestimate financial assets and also debts (Table 1).

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7 In both HILDA and SOEP missing income and wealth data are imputed by the survey managers.
Table 1

Benchmarking HILDA and SOEP Wealth Data Against National Accounts

<table>
<thead>
<tr>
<th>Assets/debts</th>
<th>HILDA estimate as % of National Accounts</th>
<th>SOEP estimate as % of National Accounts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-financial assets (mainly residential property)</td>
<td>98</td>
<td>98</td>
</tr>
<tr>
<td>Financial assets</td>
<td>93</td>
<td>49</td>
</tr>
<tr>
<td>Debts</td>
<td>82</td>
<td>93</td>
</tr>
<tr>
<td><strong>Net worth (assets minus debts)</strong></td>
<td><strong>97</strong>&lt;sup&gt;b&lt;/sup&gt;</td>
<td><strong>80</strong></td>
</tr>
</tbody>
</table>


b. This apparently miraculous result is partly due to cancelling errors; both assets and debts are under-estimated.

**CREAM: estimating the future income flows of retirees and integrating them into wealth stocks**

As noted above, our final comparison of the living standards of retirees in Australia and Germany involves taking account of the future income flows predicted to derive from all their assets and entitlements, including housing, superannuation, social/public pensions, and other household savings. Imputed rents are also included. Following Gruber and Wise (1999, 2004), we then convert these future flows into a stock measure, integrating them with the value of the assets measured in the HILDA and SOEP wealth modules. The new stock measure – CREAM ‘comprehensive retirement asset measure’ - is expressed in 2002 ‘present values’. The discount rate allows for the fact that income received later is worth less than income received now.

Some more detail: expected annual retirement income is calculated for each individual for each remaining year of life. Life expectancy tables are used to predict survival rates and age of death (women live longer than men; West Germans live longer than Easterners). Expected retirement income is defined as the sum of pension income, income from superannuation (Australia only) and income from other assets. All incomes are discounted back to present values (2002 prices), using a standard discount rate of 2%.

It is assumed that superannuation and other assets (excluding the family home) are invested at a rate of 6% (real). Use of an alternative rate of return of 4% did not
substantially change interpretation of the key results. It is also assumed that these assets are drawn down in equal amounts each year for the rest of the person’s life (i.e. assets are exactly exhausted at death, if the person lives to exactly his/her predicted age).  

For couples, income from assets is calculated separately for both partners. For Australians, this requires using the individual’s superannuation balance and half of the couple’s other assets. To make the final results realistic, it is necessary to apply tax rates to future income. The median German pensioner pays no taxes. Australian retirees also enjoy highly concessional rates, with those receiving only an old age pension paying no taxes at all. For those with a predicted annual retirement income of more than $24,000, superannuation income is assumed to be taxed at 5% (a figure intended to reflect average actual rates), and income from other assets is assumed to be taxed at 32% (the marginal rate of tax for middle range incomes in 2002).

**Equivalisation of income and wealth, and use of PPPs**

Our aim is to measure the living standards of individual retirees. It is generally considered that the best easily available measure is equivalised income; that is, income adjusted for household size and composition. So all incomes in this paper are equivalised, using the current OECD scale (1.0 for the first adult, 0.5 for other adults and 0.3 for children under 15). Although most of the wealth information in both surveys is collected at the individual level (in HILDA a few wealth components, including property and shares, are measured at the household level), we aggregate wealth holdings across household members and then re-assign an equivalent weighted value to each adult household member. Following the same reasoning as for income, we apply the standard approach in the welfare economics literature assuming “pooling and sharing” within the ‘needs unit’. Equivalised measures of wealth are perhaps unusual but it seems clear that they are needed here, particularly given our intention of combining stocks and flows into a single measure.

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8 An exception is the main family home. It is assumed that people do not dispose of this before death, but prefer to leave it to their children. It should also be noted that individuals are assumed to live until the average life expectancy for people of their sex and current age, as determined in standard ‘life tables’. In the case of Australians, if they live longer than average life expectancy, they are assumed to rely solely on the Age Pension for the additional years.
In order to compare the living standards of Australian and German retirees, we need to use a common currency. Australian dollars have been converted to euros using the PPP (purchasing price parity) for dollars and euros in January 2002. It so happens that the Australian dollar was at a high parity at that time (A$1.42 to Euro 1.00), so the figures in this paper make Australians look better off relative to Germans than would have been the case in some other recent years.

4. RESULTS: FROM CASH INCOMES TO “CREAM”

We begin the analysis in the conventional way, focusing just on cash incomes. We will then go on to see how much difference it makes when we take account of benefits in kind, then of wealth… and finally of retirement income flows combined into a revised and more comprehensive wealth measure.

Comparing cash incomes
Table 2 provides both between country and within country comparisons. It compares the equivalised cash incomes of retired people in Australia and Germany. It also shows how retirees’ incomes compare with the population average in their own country. Retirees, like everyone else, share their incomes with other members of the household. So the equivalised incomes shown here are, to be precise, the incomes of all individuals living in households headed by a retired person aged 65 or over.

The rows in Table 2 give mean and median incomes for the relevant population group, and also a standard measure of within-group income inequality, the Gini coefficient. The third column makes cross-national comparisons by showing Australian incomes as a percentage of German incomes. In the final two columns retiree incomes are expressed as a percentage of national incomes in their own country.
Table 2
Equivalised Cash Incomes in Australia and Germany, 2002:
Individuals in Households with Retired Heads (65+) Compared to the Total Population*

<table>
<thead>
<tr>
<th>Individuals in HHs with retired heads</th>
<th>Australia</th>
<th>Germany</th>
<th>Austr. y/ German y</th>
<th>Australian retired y/ tot. pop. y</th>
<th>German retired y/ tot. pop. y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15208</td>
<td>16800</td>
<td>90.5</td>
<td>74.2</td>
<td>91.8</td>
</tr>
<tr>
<td>Median</td>
<td><strong>12001</strong></td>
<td><strong>14349</strong></td>
<td><strong>83.6</strong></td>
<td><strong>67.2</strong></td>
<td><strong>90.7</strong></td>
</tr>
<tr>
<td>Gini</td>
<td>0.319</td>
<td>0.284</td>
<td>112.3</td>
<td>103.0</td>
<td>95.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Population</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>20501</td>
<td>18304</td>
<td>112.0</td>
<td>as above</td>
<td>as above</td>
</tr>
<tr>
<td>Median</td>
<td>17894</td>
<td>15817</td>
<td>113.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>0.310</td>
<td>0.299</td>
<td>103.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A PPP rate of A$1.42 = Euros 1.00 has been used.
Sources: HILDA 2002 and SOEP 2002.

Taken at face value, the evidence here might appear to confirm the OECD’s comparisons, which were cited earlier. Let us focus on median incomes (highlighted in the table) which give the clearest indication of typical standards. In 2002 Australians as a whole had somewhat higher median incomes than Germans, at least according to these PPP comparisons. But Australian retirees were considerably worse off than German retirees. Their median incomes were 16.4% lower. Australian retirees received only 67.2% of the overall population median income, whereas German retirees received 90.7%.

Adding imputed rent
A first corrective to just comparing cash incomes is to add the value of benefits in kind. Table 2 makes the same comparisons as the previous table, but adds in the imputed rents of homeowners and the subsidies implicitly received by (some) public housing tenants, and also by rent free tenants in the private sector.
Table 3
Equivalised Incomes INCLUDING Imputed Rent in Australia and Germany 2002:
Individuals in Households with Retired Heads (65+) Compared to the Total Population*

<table>
<thead>
<tr>
<th>Individuals in HHs with retired heads</th>
<th>Australia</th>
<th>Germany</th>
<th>Austr. y/ German y</th>
<th>Australian retired y/ tot. pop. y</th>
<th>German retired y/ tot. pop. y</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Euros</td>
<td>Euros</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Mean</td>
<td>19730</td>
<td>18581</td>
<td>106.2</td>
<td>84.3</td>
<td>96.2</td>
</tr>
<tr>
<td>Median</td>
<td>15930</td>
<td>15911</td>
<td>100.1</td>
<td>77.8</td>
<td>94.9</td>
</tr>
<tr>
<td>Gini</td>
<td>0.300</td>
<td>0.277</td>
<td>108.3</td>
<td>103.4</td>
<td>93.6</td>
</tr>
</tbody>
</table>

| Total population                      |           |         |                   |                                |                               |
|                                        |           |         |                   | as above                        | as above                      |
| Mean                                  | 23401     | 19320   | 121.1             |                                |                               |
| Median                                | 20467     | 16773   | 122.0             |                                |                               |
| Gini                                  | 0.299     | 0.296   | 101.0             |                                |                               |

*A PPP rate of A$1.42 = Euros 1.00 has been used.
Sources: HILDA 2002 and SOEP 2002.

Now the position of Australian retirees appears much improved. Inclusion of imputed rents and housing subsidies shifts their incomes (at the median) to almost exactly the same level (100.1%) as their German counterparts, compared to only 83.6% if only cash incomes are included. Compared to the total population in their own country, Australian retirees also appear relatively better off; moving up from 67.2% of the population median to 77.8%. The relative position of German retirees within the total population is less affected, but is also improved by inclusion of imputed rents. Their median incomes move up from 90.7% of the population median to 94.9%.

The main reason for the large change in the position of Australian retirees is that the huge majority (82%) own their own homes with no remaining mortgage debt. In practice, banks and other mortgage lenders in Australia normally only provide loans on the basis that it is planned to clear them before retirement. In Germany, on the other hand, the change is smaller because retirees already have relatively high cash incomes and, secondly, homeownership rates are low by Australian and, indeed, by European standards.
What about wealth?

So far we have only considered incomes. Clearly, however, living standards depend to a considerable extent on accumulated wealth, especially in old age. In Table 4 we make wealth comparisons similar to those previously given for income. Only net worth (assets minus debts) in 2002 is considered; no allowance is yet made for future income flows derived from wealth.

<table>
<thead>
<tr>
<th>Individuals in HHs with retired heads</th>
<th>Australia</th>
<th>Germany</th>
<th>Austr. y/ German y</th>
<th>Australian retired y/ tot. pop. y</th>
<th>German retired y/ tot. pop. y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>211971</td>
<td>128867</td>
<td>164.5</td>
<td>136.6</td>
<td>136.2</td>
</tr>
<tr>
<td>Median</td>
<td>129892</td>
<td>62086</td>
<td>209.4</td>
<td>154.0</td>
<td>197.6</td>
</tr>
<tr>
<td>Gini</td>
<td>0.540</td>
<td>0.666</td>
<td>81.0</td>
<td>90.8</td>
<td>90.1</td>
</tr>
<tr>
<td>Total population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>155191</td>
<td>94605</td>
<td>164.0</td>
<td>as above</td>
<td>as above</td>
</tr>
<tr>
<td>Median</td>
<td>84360</td>
<td>31415</td>
<td>268.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gini</td>
<td>0.595</td>
<td>0.740</td>
<td>80.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A PPP rate of A$1.42 = Euros 1.00 has been used.
Sources: HILDA 2002 and SOEP 2002.

As is well known, wealth is about twice as unequally distributed as income and, due to what financial advisers like to call the magic of compound interest, it is much more concentrated in older households. In Western countries the main source of wealth (conventionally measured) is property, especially housing. So, in complete contrast to the initial income story, our initial view of wealth could be said to makes retirees in both countries look better off than the general population with Australian retirees apparently wealthier than German. The reason why Australian retirees appear to be in such a favourable position is that, as already noted, the large majority own their homes outright. In Germany homeownership in the retired population stood at 54% in 2002. Some additional but quantitatively minor factors, at least within the retired population, are that
Australian share ownership is at a higher level than German, as is the holding of private superannuation.⁹

**Final results: CREAM includes future income flows in a revised measure of retiree wealth**

We now give our final preferred estimates of the living standards of Australian and German retirees. As explained, the CREAM measure is based on including future income flows from all assets and pension entitlements in a revised measure of wealth, which is then discounted back to 2002 present values. This measure has only been constructed for retirees. In their case wealth and current pensions levels in 2002 are already known. In principle the measure could be provided for the whole population. However a practical difficulty, in the German data especially, would be that individuals’ future pension incomes would be hard to predict (but see Gruber and Wise, 2004).

<table>
<thead>
<tr>
<th>Individuals in HHs with retired heads</th>
<th>Australia Euros</th>
<th>Germany Euros</th>
<th>Austr. y/German y %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>273978</td>
<td>281528</td>
<td>97.3</td>
</tr>
<tr>
<td>Median</td>
<td>213180</td>
<td>220339</td>
<td>96.8</td>
</tr>
<tr>
<td>Gini</td>
<td>0.402</td>
<td>0.398</td>
<td>101.0</td>
</tr>
</tbody>
</table>

* A PPP rate of A$1.42 = Euros 1.00 has been used.
Sources: HILDA 2002 and SOEP 2002.

After many gyrations, our final estimate is that Australian and German retirees probably have almost exactly the same standard of living. This is quite contrary to OECD’s widely accepted estimates, and to the first estimates we presented which, like OECD’s estimates, were based solely on cash income.

⁹ Arguably, superannuation should not be included in the international comparison. While some Australians have superannuation, it is almost unknown in Germany, where people rely on contributory pensions. However, the inclusion of superannuation makes no substantial difference to the international comparisons, especially in the retired population. The median Australian retiree in 2002 had zero superannuation; the mean holding was about Euros 30,000.
Equality of retiree living standards appears to prevail whether the mean or median is preferred as a measure of central tendency. Furthermore, inequality appears to be about the same within the two retiree populations; the Australian Gini for the revised wealth measure being 0.402 and the German 0.398. The reasons why German retirees appear comparatively much better off in Table 5, compared to Table 4, is that their higher pensions make a much bigger contribution to the revised measure of wealth than the flat rate pensions of retired Australians. This equalizing effect is apparent in Figure 1, which shows Lorenz curves for net worth measures with and without the inclusion of public pension wealth in Germany. In Germany almost all retirees have public pension wealth, whereas in Australia about 20% of retirees, who are nearly all financially well off, receive no pension and rely on private sources. (This is why the Lorenz curves for Australia cross).

Figure 1:
Lorenz curves for (adjusted) net worth and public pension wealth in Australia and Germany, 2002:
Individuals in Households with Retired Heads (65+)*

From a public policy standpoint, a key observation is that the approximately equal living standards of the two retiree groups are achieved with via hugely different wealth portfolios, as shown in Table 6.

Table 6
Extended Wealth Portfolios in Australia and Germany in 2002, Individuals in Households with Retired Heads (65+)*

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 retired</td>
<td>100,0</td>
<td>43,0</td>
<td>0,0</td>
<td>37,7</td>
<td>2,0</td>
<td>21,3</td>
<td>-2,8</td>
<td>-1,2</td>
</tr>
<tr>
<td>65-74</td>
<td>100,0</td>
<td>47,6</td>
<td>0,9</td>
<td>26,5</td>
<td>5,3</td>
<td>22,1</td>
<td>-1,8</td>
<td>-0,7</td>
</tr>
<tr>
<td>75 and over</td>
<td>100,0</td>
<td>48,1</td>
<td>1,6</td>
<td>26,4</td>
<td>4,4</td>
<td>20,8</td>
<td>-0,8</td>
<td>-0,5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age of head</th>
<th>Net extended worth</th>
<th>Property (own and other)</th>
<th>&quot;Stockized Imputed Rent for tenants&quot;</th>
<th>Financial assets incl. Priv. pensions &amp; Insurances</th>
<th>Other non-financial assets (e.g. business, collect.)</th>
<th>Stockized Public Pension Wealth</th>
<th>Property related debt</th>
<th>Other debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64 retired</td>
<td>100,0</td>
<td>38,2</td>
<td>0,2</td>
<td>11,9</td>
<td>1,1</td>
<td>53,7</td>
<td>-4,7</td>
<td>-0,5</td>
</tr>
<tr>
<td>65-74</td>
<td>100,0</td>
<td>36,1</td>
<td>0,7</td>
<td>7,0</td>
<td>2,5</td>
<td>57,0</td>
<td>-2,4</td>
<td>-0,8</td>
</tr>
<tr>
<td>75 and over</td>
<td>100,0</td>
<td>39,8</td>
<td>0,9</td>
<td>9,6</td>
<td>4,3</td>
<td>46,5</td>
<td>-0,8</td>
<td>-0,2</td>
</tr>
</tbody>
</table>

Sources: HILDA 2002 and SOEP 2002.

The typical Australian retiree portfolio in 2002 was about 47% in the form of (mostly outright owned) housing, 29% in financial assets including bank accounts, superannuation (usually taken as a lump sum)\(^{10}\), shares and managed funds, and about 21% in the form of future flat rate pension income flows.\(^{11}\) German retirees, by contrast, typically have large pension incomes amounting to just over 50% of their portfolio, about twice as high a share than their Australian counterparts. They too have substantial amounts in property – about 37% of the portfolio – although much less than Australians. Finally, less than 10% of their portfolios are in financial assets, including bank accounts and shares.

\(^{10}\) But here including future income flows.

\(^{11}\) The remaining 3% or so is in the form of businesses, farms, vehicles and other durables.
5. POLICY IMPLICATIONS AND FUTURE WORK

The political economies of different Western countries, especially their tax and pension regimes, offer quite different opportunities for wealth accumulation and so for living standards in retirement. Other things equal, high compulsory contributions to national pension schemes impose significant opportunity costs. They reduce opportunities to accumulate wealth via home ownership, share ownership and household savings generally. In the absence of these constraints, in countries where saving for old age is not compulsory, households make their own decisions. As we have seen, most Australians mostly do save for old age via homeownership; a ‘choice’ that may not be entirely conscious, and one which is certainly also based on earlier life preferences (‘the family home’, ‘owning your own property’). Some individuals may prefer not to save for old age. This may be foolhardy, or it may possibly be rational if one expects to die young, or rely on support from children and other relatives.

In Germany, as in many other corporatist and social democratic regimes, there appears to be a strong preference for a system which ensures that most people have a living standard in retirement similar to their working years (Esping-Andersen, 1990). There may also be some support for inter-generational transfers….for the idea that working generations, who are generally living in more prosperous times, should help to support retirees who spent most of their working earning lower incomes in less prosperous times. Clearly, however, this inter-generational bargain is now under strain in many countries, including Germany, because of population ageing and the consequent under-funding of future pension entitlements.

In the liberal Australian system, there has historically been a preference for relying just on a basic safety net pension. Beyond that Government intervention has supported the ‘liberal’ goal of homeownership, partly (but not only) with a view to improving living standards in retirement. It may be that there is now a limited degree of policy convergence occurring. In Australia the adoption of the Superannuation Guarantee in 1992 marked the beginning of a national pension scheme of a sort, albeit one that leaves much to individual decision. In Germany it seems unavoidable that actuarial problems
with the national pension scheme and consequent pressure on individual pension entitlements will oblige Governments to continue to make households more responsible for their own retirement living standards, if they do not wish those standards to fall. As of today, few retirees are below the relative income poverty line. However, it is likely that future retirees will be much more affected by pension losses due to discontinuities in their work biography caused by unemployment (more so in East than in West Germany). While many German retirees have invested in old-age provision via homeownership, a significant share of the population will still be mainly dependent on the social security pension system, which may be complemented by private pension insurance. Although there is a tax financed very basic old age allowance (Grundsicherung im Alter), it must be assumed that inequality of economic outcomes among the German elderly population will increase in future.

This paper has been largely based on HILDA and SOEP wealth surveys conducted in 2002. The HILDA wealth module was repeated in 2006 – the data are already available – and the German module was repeated in 2007, with the data due to be released after imputation of missing values in 2009. We, along with other colleagues managing panel datasets, hope to continue to improve and extend both the income and wealth measures in the panel files. This should prove worthwhile, not just for researchers interested in retirement issues but, more generally, for work on a wide range of topics relating to income and wealth dynamics.
References


