German Institute
for Economic Research

No. 10/2009
Volume 5
May 28, 2009

DIW BERLIN

Weekly Report

Wealth Inequality on the Rise in Germany

Joachim R. Frick
jfrick@diw.de

Markus M. Grabka
mgrabka@diw.de

Individual net wealth in Germany totaled an average of around 88,000 Euros at the beginning of 2007 which was about 10 percent higher than in 2002. Decisive for this development was an increase in monetary wealth as well as wealth from private insurance. In connection with the overall quite unequal division of wealth, the median i.e., the value which separates the richest 50 per cent of the population from the poorest, continues to be only around 15,000 Euros. Nonetheless, around two thirds of the population of 17 years of age and above did not possess any or very little monetary and material wealth. So, on the whole, wealth inequality in Germany has continued to increase since 2002. Within the scope of this development, the wealth inequalities which already existed between West and East Germany have further increased since 2002, which has primarily been as a result of the decreasing market value of property in East Germany. Reforms of the state system providing for old age demand a reinforcement of private and company pension plans. Here, private asset accumulation through investment in owner-occupied properties and regular savings activity—also government sponsored—has particular significance in the maintenance of living standards after retirement.

Alongside an individual's regular income, wealth, which consists of the sum of all their monetary goods, makes an important contribution to individual economic welfare.[1] From a micro-economic perspective wealth has a wide range of functions:[2] through interest revenue, further increase in income is generated (income function); the personal use of non-financial assets (e.g., property, vehicles) brings about direct benefit and potentially a wider range of free choice (utility function); the spending of wealth serves to stabilize consumption in case of income loss (security function); larger wealth bestows economic and political power (power function), and also serves to achieve or maintain a high social status (social status maintenance function) as well as to finance training and education for offspring (socialization function). Finally, wealth is important for an individual's security in old age and as an instrument of inter-generational transferences (inheritance function).

1 Jürgen Volkert, Günther Klee, Rolf Kleimann, Ulrich Scheurle and Friedrich Schneider (2004): Operationalisierung der Armuts- und Reichtumsmessung. Bundesministerium für Gesundheit und Soziale Sicherung (Hrsg.), Bonn

2 See Richard Hauser (2007): Integrierte Analyse von Einkommen und Vermögen—Forschungsstand und Ausblick. In: Weiterentwicklung der Reichtumsberichterstattung der Bundesregierung. Expert Workshop on 29th November 2006 in Berlin. Event organised by the Federal Ministry for Labour and Social Affairs. Insitute for Social Research and Policy (ISG), Cologne, Pp. 12-29.

JEL Classification:
D31, I31

Keywords:
Wealth Inequality, Mobility, Composition, SOEP

Box 1

Definition of Wealth

The national wealth of an open national economy is upheld by four "final owners". These are the state, private non-profit organizations[1], private households and foreign countries. In Germany, the vast majority of national wealth belongs to domestic private households.[2]

The wealth of private households is made up of the following components: tangible assets in the form of property at home and abroad and national wealth earmarked for consumption. The latter includes gold, jewelry or valuable collections. If you follow the demarcation in the national accounts, national wealth earmarked for consumption also includes household contents and vehicles.[3] Along with tangible assets, wealth in private households also includes monetary assets in the form of claims from the government, businesses, financial institutions and foreign countries. A further component is represented by stake wealth from stocks and shares or titles to businesses (company assets) and financial institutions at home and abroad. On the opposite side of this gross wealth are debts of all kinds (e.g., mortgages, consumer credits). The balance of these four components constitutes the net wealth of the household sector.[4] Other types of investment within a society, particularly non-transferable and non-tradable, such as human and environmental or cultural wealth are not taken into consideration in this paper.

1 This includes, for example, churches and religious communities, associations, parties or trade unions.

2 Here the domestic concept has to be differentiated from the resident concept. The domestic concept only allows the national wealth within a country whereas the resident concept – which is applied here – only considers the wealth of those individuals who are native to the country. This difference is important as national citizens can also have property rights abroad. The gross foreign wealth is, thus, the balance of rights to property and liabilities abroad. The national wealth according to the resident concept thus consists of property of the three domestic final owners and the net foreign wealth.

3 The total contents and the value of vehicles are not collected separately by the SOEP. The wealth situation in private households is, thus on the whole underestimated. See Box: Methodological Problems of the Acquisition of Data on Wealth.

4 When calculating national wealth, problems arise in the imputation of different components on the final owners, particularly the investments in private households. However, also foreign wealth which is owned by indigenous citizens is usually not encapsulated with a wealth calculation.

The results presented in this report are based on a research project on the calculation of wealth distribution[3] that was sponsored by the Hans Böckler Foundation and expands analyses conducted by DIW Berlin on descriptions of the level, composition and distribution of individual private wealth in 2002[4]. The empirical basis is formed by data from the long-term study Socio-Economic Panel (SOEP)[5] compiled in 2002 and 2007 by the DIW Berlin in cooperation with Infratest Sozialforschung. With these representative longitudinal data, the development, distribution and mobility of individual wealth can be illustrated. Any loss of wealth that may occur through the current financial market crisis is not included in this study. The impact of the crisis on individual total wealth is, however, likely to be limited.[6] In conventional surveys, data on the asset base at household level is collected and for the purpose of distribution analysis is attributed per capita to each household member. In contrast to this, SOEP wealth component inquiries are at the level of the individual which means that individual wealth from all survey subjects above the age of 17 years is evident. This, in principle, makes it possible to analyze the private redistribution within a household.

The SOEP includes seven different wealth components: owner-occupied and other property ownership (including, among others, undeveloped land, holiday or weekend flats), monetary wealth (savings, savings bonds or other bonds, shares or investment certificates), wealth from private insurances (life or private pension insurances, building loan contracts), company wealth (ownership of or stake in firm, business or company), tangible wealth in the form of a valuable collection such as gold, jewelry, coins or artworks as well as debts (consumer credits or mortgages).[7] Deducting debts from gross

3 "Erstellung und Analyse einer konsistenten Geld- und Sachvermögensverteilungsrechnung für Personen und Haushalte 2002 und 2007 unter Berücksichtigung der personellen Einkommensverteilung" (Project number: S-2006-835-4; Project management Markus M. Grabka and Joachim R. Frick).

4 See Markus M. Grabka and Joachim R. Frick (2007): Vermögen in Deutschland wesentlich ungleicher verteilt als Einkommen. Weekly DIW Berlin Report, Nr. 45/2007, pp. 665-672.

5 The SOEP is a repeated representative survey of private households which has been conducted on an annual basis since 1984 in West Germany and since 1990 in East Germany; see Gert G. Wagner, Jan Göbel, Peter Krause, Rainer Pischner and Ingo Sieber (2008): The Socio-Economic Panel (SOEP): Multidisziplinäres Haushaltspanel und Kohortenstudie für Deutschland—Eine Einführung (für neue Datennutzer) mit einem Ausblick (für erfahrene Anwender). In: AStA Wirtschafts- und Sozialstatistisches Archiv Bd. 2, Heft 4, 2008, pp. 301-328.

6 Between the end of 2007 and the end of 2008, monetary wealth only fell by 2.5 percent. See Allianz Group (2009): Geldvermögen der privaten Haushalte in Deutschland erleidet Einbruch. Press release 7th January 2009. Furthermore, the impact of the financial market crisis on market values of private property in Germany is negligible.

7 Since the last report compiled by the DIW Berlin on the wealth situation in Germany, the 2002 data have also been subject to small revisions. This particularly relates to methodological improvements in the quality of imputation of missing results on the basis of longitudinal information

Table 1

Distribution of individual net wealth in Germany in 2002 and 2007

Distribution values	West Germany 2002	West Germany 2007	Change 2002/07 in %	East Germany 2002	East Germany 2007	Change 2002/07 in %	Germany 2002	Germany 2007	Change 2002/07 in %
Mean	90 724	101 208	11.6	34 029	30 723	–9.7	80 055	88 034	10.0
Median	18 128	20 110	10.9	7 570	6 909	–8.7	15 000	15 288	1.9
90th percentile	235 620	250 714	6.4	102 475	90 505	–11.7	208 483	222 295	6.6
95th percentile	350 818	382 923	9.2	149 618	136 594	–8.7	318 113	337 360	6.1
99th percentile	805 753	913 814	13.4	293 903	252 603	–14.1	742 974	817 181	10.0
HSCV	4.496	6.103	35.7	2.313	2.829	22.3	4.805	6.677	39.0
Gini	0.765	0.785	2.6	0.792	0.813	2.7	0.777	0.799	2.8
MLD	0.564	0.660	17.0	0.439	0.452	3.0	0.582	0.676	16.3
p90/p50	13.000	12.468	–4.1	13.542	13.104	–3.2	13.899	14.547	4.7
Proportion: negative or no wealth (in %)	27.7	26.4	–4.7	29.1	29.7	2.1	27.9	27.0	–3.2
For information only: Share of the population (in %)	81.2	81.3	0.2	18.8	18.7	–0.5	100.0	100.0	–

1 Those in private households above the age of 17 years.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

wealth gives you the sum of total net wealth which is relevant from an economic welfare perspective and is the subject of analysis on personal wealth distribution (Box 1).

In 2007, private households had net wealth of over 6 trillion Euros at their disposal…

The projected SOEP data for 2007 reveal total gross wealth (not including vehicle and household effects) of around 8 trillion Euros, where land and property ownership constitutes the lion's share of 5.3 trillion Euros. In comparison with 2002, total gross wealth has increased by nominally more than 1.1 trillion Euros, inflation-adjusted[8] this corresponds to an increase of more than 7 percent. The increase is predominantly a result of real growth in monetary wealth, while the value of property ownership has remained constant since 2002.

Private households' debts amounted to over 1.4 trillion Euros in 2007 and predominantly consisted of consumer credits and mortgages. After deducting these debts, in 2007, the gross wealth of private households in Germany totaled 6.6 trillion Euros.

… this equates to 88,000 Euros per adult

From a welfare and socio-political perspective the personal distribution of this amount and its change over time plays a very important role: In 2007, on average, everyone over the age of 17 had individual total net wealth of around 88,000 Euros at their disposal (not including social insurance entitlements, see Box 2) which is more than around 10 per cent higher than 2002 (Table1). The median of the wealth distribution, the value which divides the wealthy half of the population from the poor half is only around 15,000 Euros. At the same time, a little more than a quarter of all adults (27 percent) have no personal wealth at their disposal and were even in debt, whereas the richest tenth of the population had a total net wealth of at least 222,000 Euros at their disposal.

There are still pronounced differences in net wealth between West and East Germany. Whereas in the old federal states the individual net wealth in 2007 was, on average, more than 100,000 Euros, in the new states, this figure totaled only around 31,000 Euros. At the same time, the differences became more pronounced during the 5 year survey period: in the old states, net wealth increased by more than 11 per cent, whilst in the new states, this figure fell by almost 10 percent—inflation-adjusted this constitutes a drop of more than 17 percent. The main reason for this drop is a decline in the market value of owner-occupied property. Also measured using median values, net wealth developed in opposite directions in the two halves of the country. This also applies to the proportion of the population with no wealth or in debt.

as well as retroactive imputation of asset bases under 2,500 Euros which were not collected in 2002.

8 Inflation adjustment is made on the basis of the consumer price index (basis year 2000).

Wealth inequality continues to rise

If we sort people by the size of their net wealth and divide them into ten equally sized groups (deciles), it becomes apparent that, in 2007, the richest tenth has more than 60 percent of the total wealth at their disposal (Figure 1). Within this, the top five percent commands 46 percent and the top one percent more than around 23 percent of total wealth. In comparison with 2002 the concentration of net wealth in the top decile has further increased but in all other deciles the corresponding percentages for 2007 are lower.

More than two-thirds of the total population, however, had no or very limited individual net wealth at their disposal. The bottom 70 percent of the population, sorted according to wealth, have a proportion of the total wealth of under 9 percent at their disposal, which is around 1.5 percentage points lower than in 2002.

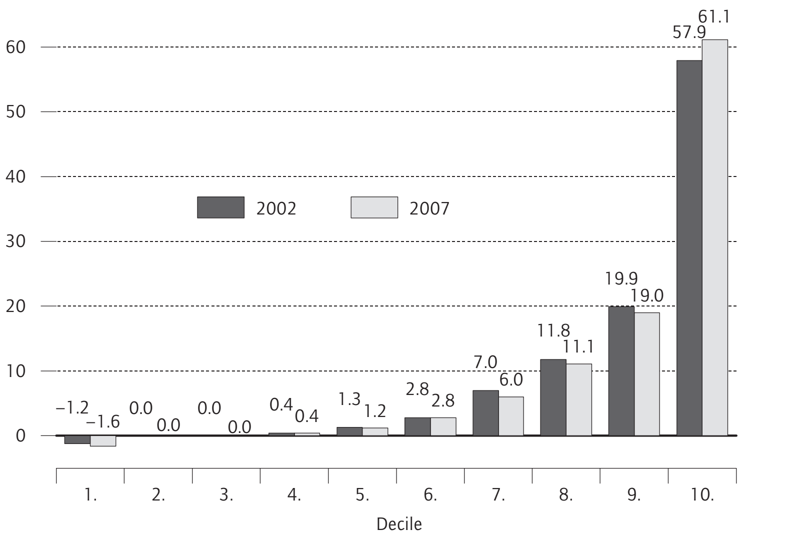
This very unequal distribution is also reflected in a relatively high Gini coefficient[9]. At 0.799 in 2007, this was even closer to the maximum value of 1 (Table 1) than in 2002 (0.777).[10] Further indicators measuring the concentration of wealth that also evaluate changes on the margins of the distribution prove a statistically significant increase in wealth inequality.[11]

An alternative measure of distribution is the decile ratio 90:50 which relates to the lowest wealth margin of the richest 10 percent of the population with the upper wealth margin of the poorest 50 percent (median). Thus, this figure indicates the multiple of the wealth of the richest in relation to the mean value of wealth distribution. For 2007, this value was calculated at 14.5. This means that "poorest" person within the top ten percent group exceeded the distribution median by more than 14 times. This value also indicates an increase since 2002 (13.9) as the median only increased by about 2 percent but the lowest margin of the "top ten" increased by around 10 percent.

Figure 1

Individual[1] net wealth by deciles in Germany in 2002 and 2007

Proportion of total wealth in percent



1 Those in private households above the age of 17 years.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

Significance of Property Ownership

Examining pure net values generally conceals important structural differences both with regard to the composition of wealth and possible debts. Thus, a low net wealth value can be a result of high gross wealth with, simultaneously, a similarly high level of debt (e.g., young families shortly after acquiring their own mortgaged home) or it can simply be expressing low monetary wealth.

In 2007, around half of the adult population had monetary wealth at their disposal (49 percent) or wealth in the form of private insurances including building loan contracts (53 percent) (Table 2). The prevalence of both investments has increased since 2002.[12] On average, in 2007, around 25,000 Euros were invested as monetary assets and a little more than 22,000 Euros were invested in private insurances. Compared with 2002, this value has increased by

9 The Gini coefficient is a statistical measure for the representation of inequality. The measure can assume values of between 0 and 1. The closer the value is to 1, the greater the inequality.

10 If we compare internationally, Germany occupies a middle position in wealth inequality. The Gini coefficient is about 0.75 in Canada and in the USA in 2001 it was 0.84. See Eva Sierminska, Andrea Brandolini und Timothy Smeeding (2006): Comparing wealth distribution across rich countries: First results from the Luxembourg Wealth Study. Luxembourg Wealth Study Working Paper Series, Working Paper No. 1.

11 This applies both to the so-called MLD coefficient, which is particularly sensitive towards changes at the lower end of wealth distribution, as well as to the HSCV coefficient, which focuses more on the upper wealth strata. The MLD provides the mean logarithmic variance and the HSCV is based on the square coefficient of variation.

12 Furthermore, when we are interpreting these results, we have to consider that the analysis of monetary and material wealth presented here does not take into consideration possible claims made to social insurance carriers (statutory pension insurance (GRV), miners' associations, occupational welfare insurance schemes, pension funds, etc.) and data on this is not collected either by the SOEP or in the German Income and Consumption Survey (EVS). While current pension income is, as standard, counted as part of income calculations, future pension payments are excluded from the analysis because of the necessary assumptions on the calculation of actual value (differential life expectancy, discounting rate etc.) as well as the lack of transferability and tradability.

Box 2

Methodological Problems in Capturing Wealth

Not only the approach to capture private wealth in the National Accounts, but also the analysis of the wealth distribution on the basis of population-representative micro data are confronted with a series of methodological and statistical problems.

What is common to both approaches is that the prospective entitlement to state pension funds is not sufficiently taken into consideration. The accumulated pension claims are converted into points which seem to show no direct relation to social insurance wealth and thus it is hardly possible to ask questions on this in population surveys. (In a similar way, claims on prospective entitlements to company pensions are also affected by survey data collection difficulties.) However, one can assume that the components mentioned at the outset in particular represent the type of wealth that one comes across most frequently in the population because, for the majority of the working population, contributions to a pension fund are compulsory, or pension-fund relevant claims, e.g., in the form of training or maternity leave are accumulated. Analyses of pension fund data show that 91% of all men and 87% of all women at the age of 65 have accumulated their own claims to the GRV (in East Germany, the corresponding rate is even 99%).[1]

In population surveys, it is common that certain wealth components are not surveyed because they are particularly difficult to capture. Tangible wealth incorporates the value of an entire house contents including all vehicles as part of a household. Given the difficulties people face trying to estimate the total value of their entire household content at current market value, questions are only asked in this study on tangible wealth in the form of valuable collections such as gold, jewelry, coins or art works. Due to this restriction, these wealth components in aggregate in comparison with the total sum for the entire national economy are underestimated *ceteris paribus*.

In population surveys, the asset base is normally encapsulated at the level of the household and is shown in the form of per capita wealth.[2] The SOEP has a methodological peculiarity here as data on the individual wealth of every individual surveyed over the age of 17 is collected. Thus, in comparison to a per capita observation, differences within the household or partnership are evident. The analyses conducted here refer to individual wealth of people from the age of 17 in Germany,[3] i.e. the redistribution from individuals with a high level of wealth to household members with limited or even no individual wealth is explicitly not examined. A comparison of the aggregated personal wealth base conducted by the SOEP with wealth statistics from the Deutsche Bundesbank, however, shows a high level of conformity for the majority of wealth components included in the study, also when considered in international comparison.[4] Monetary wealth is an exception, with an acquisition rate of only about 50%.[5]

In total approximately 80% of aggregated net wealth (without tangible assets), as long as they are held by private households, are shown by the SOEP. This verification rate is marginally higher than that of the official EVS.

The problem common to population surveys—an insufficiently meaningful representation of high income and wealth—has been accommodated to a greater extent by the SOEP since 2002 with its sub-sample "High-Income Households." Against the backdrop of high inequality of personal distribution of wealth, this sub-sample or the sufficiently large number of cases of rich households in the SOEP is of particular significance.[6] Particularly the relationship between income and wealth distribution, predominantly for the group of high income earners, will be presented in more detail as asset bases, wealth income and savings are, to a great extent, dependent on readily available disposable income.

1 See Bundsministerium für Arbeit und Soziales (2008): Alterssicherungsbericht 2008: p. 83 (http://www.bmas.de/coremedia/generator/29492/property=pdf/2008__11__19__alterssicherungsbericht.pdf).

2 See, for example, the results on the basis of Income and Consumer sample (EVS) which only encapsulates wealth at the household level: Richard Hauser and Holger Stein (2001): Die Vermögensverteilung im vereinigten Deutschland. Frankfurt a.M.: Campus.

3 Therewith, wealth commanded by children is explicitly left aside, whereby one can assume that this only makes up a limited proportion of the total wealth.

4 See Joachim R Frick,. Markus M. Grabka and Eva M. Sierminska (2007): Representative Wealth Data for Germany from the German SOEP: The Impact of Methodological Decisions around Imputation and the Choice of the Aggregation Unit. DIW discussion paper no. 562, Berlin, March.

5 The fact, which is also well known internationally, that financial wealth is underplayed in population surveys is, among other factors, the result of different demarcations of supposed wealth and different population demarcations. Thus, in the Deutsche Bundesbank wealth statistics, apart from the population of institutions (e.g. homes for the elderly and care homes) also non-profit organisations (churches, trade unions etc.)are taken into consideration whereas the SOEP only collects results for individuals in private households. Furthermore, in the Deutsche Bundesbank wealth statistics, prospective entitlements to private health insurance (PKV) are calculated as part of the financial wealth of private households although those with private health insurance have no direct access to this wealth. In 2007, these prospective entitlements totalled more than 123 billion Euros (PKV 2008: Zahlenbericht der privaten Krankenversicherung 2007/2008, p.63).

6 See Joachim R. Frick, Jan Goebel, Markus M. Grabka, Olaf Groh-Samberg, Gert G. Wagner (2007): Zur Erfassung von Einkommen und Vermögen in Haushaltssurveys: Hocheinkommensstichprobe und Vermögensbilanz im SOEP. DIW Data Documentation Nr. 19.

A fundamental problem emerges from the necessity to evaluate asset bases close to the market. Thus for example, property assets have been evaluated, so far, with the ratable value from a tax point of view, which is generally considerably below the current market price. Estimating the market price of a value within the framework of a survey was difficult, particularly when an object is inherited or bought already some time before and the individuals being questioned do not have enough current market knowledge. Also the evaluation of company assets is well known to be particularly difficult.

Wealth values can, in contrast to regular income, be very volatile, which consequently makes the evaluations even more difficult. This, in turn, leads to more individuals avoiding providing responses to questions relevant to wealth, which further exacerbates the general sensitivity that already exists around the subject.

Alongside a comprehensive consistency check of the individual data, the SOEP replaces, without exception, all missing wealth values by using imputation.[7]. The quality of the imputation is higher than would be the case if data was collected only once due to the usage of longitudinal data within the scope of repeated measuring of wealth acquisition between 2002 and 2007.

7 See Joachim R. Frick, Markus M. Grabka and Jan Marcus (2007): Editing and Multiple Imputation of Item-Non-Response in the 2002 Wealth Module of the German Socio-Economic Panel (SOEP). SOEP papers on Multidisciplinary Panel Data Research at DIW Berlin, No. 18/2007, Berlin: DIW.

Table 2
Wealth components of individual net wealth in Germany in 2002 and 2007

	West Germany		East Germany		Germany	
	2002	2007	2002	2007	2002	2007
Current owners as a proportion of the population[1]						
Owner-occupied property ownership	38.1	38.2	28.8	28.1	36.4	36.3
Other property ownership	11.1	11.1	6.4	6.9	10.2	10.4
Monetary wealth	45.8	49.6	44.4	46.0	45.5	48.9
Private insurance	46.6	53.2	49.9	51.3	47.2	52.9
Thereof: building loan contracts[2]	–	29.7	–	27.8	–	29.3
Company assets	4.4	4.5	3.5	3.7	4.2	4.4
Tangible assets	10.8	6.7	4.6	3.5	9.6	6.1
Debts[3]	30.5	34.0	25.9	29.4	29.6	33.1
Portfolio structure in percentage of net wealth						
Owner-occupied property ownership	62.3	58.3	73.8	73.7	63.2	59.3
Other property ownership	23.4	22.9	10.3	9.9	22.4	22.1
Monetary wealth	11.8	13.8	17.1	20.1	12.3	14.2
Private insurance	10.8	13.0	14.5	18.6	11.1	13.4
Thereof: building loan contracts[2]	–	3.2	–	5.7	–	3.3
Company assets	9.8	11.1	8.6	7.7	9.7	10.9
Tangible assets	1.8	1.3	1.5	0.8	1.8	1.3
Debts[3]	–20.0	–20.6	–25.9	–30.8	–20.5	–21.2
Total in percent	**100**	**100**	**100**	**100**	**100**	**100**
Total in Euros	**90 724**	**101 208**	**34 029**	**30 723**	**80 055**	**88 034**
Average level of current wealth type[4] in Euros						
Owner-occupied property ownership	148 291	154 468	87 351	80 433	139 220	143 754
Other property ownership	191 917	208 127	55 112	44 387	175 798	187 786
Monetary wealth	23 436	28 254	13 134	13 463	21 546	25 654
Private insurance	21 100	24 804	9 907	10 048	18 874	22 328
Thereof: building loan contracts[2]	–	10 856	–	6 282	–	10 048
Company assets	203 362	247 191	84 589	65 048	184 959	218 823
Tangible assets	14 968	19 789	10 988	6 527	14 612	18 356
Debts[3]	–59 507	–61 222	–34 068	–32 235	–55 326	–56 415

1 Those in private households above the age of 17 years.
2 Only collected separately in 2007.
3 Debts from mortgages and consumer credits.
4 Only those currently owning the wealth type.

Sources: SOEP. DIW Berlin calculations.

DIW Berlin 2009

around 18 percent.[13] Among other things, this development can be explained by reforms to private pension provisions (Riester or Rürup pension).[14] Furthermore, the aggregate savings rate in Germany also increased from 9.9 percent to 10.8 percent.[15]

A third of the population has an owner-occupied property[16] and approximately a tenth of the adult population owns other types of property. These figures have not changed since 2002. From the point of view of quantitative significance, measured as a proportion of total wealth, excluding social insurance claims—owner-occupied property is the most important form of investment in Germany. The average gross value of this form of wealth is around 145,000 Euros. Its proportion of the portfolio structure has, however, fallen slightly, due, among other things, to stagnating or even declining market values in different regions of Germany and at the same time an increase in relevance of other types of investment such as private insurance.

Around one-third of the population has debts in the form of mortgages or consumer credits. Since 2002, this proportion has increased by around four percentage points. Average debt barely increased during this time. In 2007, it reached over 56,000 Euros.

A comparison of the portfolio structure with the ownership structure proves the relevance of business assets: while only 4 percent of all people owned assets in this form, business assets made up 11 percent of the total net wealth. In 2007, those with business assets owned on average about 220,000 Euros; this was over 18 percent more than in 2002. In addition, other types of property ownership are of particular significance. More than a fifth of total net wealth consists of this form of investment and its average amount is around 190,000 Euros.

Figure 2

Individual[1] net wealth according to age group in Germany in 2002 and 2007

In 1,000 Euros

1 Those in private households above the age of 17 years.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

Both the mean value and the degree of inequality of property wealth are significantly lower in the new than in the old federal states. Monetary wealth and private insurances are owned in similar quantities in both parts of the country, but the relative significance of this type of wealth, despite low market values, is higher in East Germany than in the old federal states. Furthermore, what is striking is that the relative significance of debts in the new states is, with about 31 percent, ten percentage points higher than in the old states, even though the absolute total in 2007 in the East was, with around 32,000 Euros, only just about half as high as in the West.

While in the new states, property values and the value of business assets were, to some extent, in significant decline, this form of investment increased in the West. Thus the value of owner-occupied property wealth owned by inhabitants of West Germany increased by around 6,000 Euros to 154,000 Euros between 2002 and 2007, while owners in East Germany saw a loss of 7,000 Euros to now around 80,000 Euros.[17]

13 Monetary wealth in private households increased by around 23.2 percent between 2002 and 2006 according to figures provided by the Deutsche Bundesbank (see Deutsche Bundesbank 2007): Monthly report June 2007, 59. Jahrgang, Nr. 6, P. 26.

14 Thus the number of so-called Riester contracts increased from around 2 billion in 2002 to more than 8.5 billion in 2007—an increase of around 4 times (BMAS 2008: Entwicklung der Riester-Rente (Stand: III. Quartal 2008) - Diagramm, http://www.bmas.de/coremedia/generator/29424/riester__rente__entwicklung__diagramm__stand__III__2008.html, accessed on 12/17/2008).

15 See Deutsche Bundesbank: Zeitreihe JJA327: VGR-D-Ges, Konto der privaten Haushalte, Sparquote, http://www.bundesbank.de/statistik/statistik_zeitreihen.php?lang=de&open=&func=row&tr=JJA327, accessed on 12/17/2008.

16 In 2007, approximately 48 percent of all Germans lived in households located in owner-occupied properties but the proportion of people who actually owned their property and lived in it was only about 36 percent. In many households the owner-occupied property belonged to only one of the household members; particularly adult children who still live in the parental home are, as a rule, counted as only "co-habitants" but not "co-owners".

17 This negative development of market property values is also confirmed by the panel of experts for land value. Thus the value of land for residential use in the Brandenburg area fell by 17 percent in the period between 2002 and 2007. See Oberer Gutachterausschuss für Grundstückswerte Land Brandenburg. Land Market Report 2008.

Individual Wealth Position Highly Age-Dependent

A comparison of asset bases (again without social insurance assets) according to age group shows a classic life cycle pattern (Figure 2): Up to the age of 25, average net wealth is low. In 2007, this was less than 7,000 Euros. After completing education and beginning working life there is an opportunity to save and accumulate wealth and, at the same time, the probability of inheritances or the receipt of early inheritance increases. As a result, the average total net wealth of those over the age of 25 increases significantly. The highest average individual net wealth is commanded by the 56-65 age group with about 145,000 Euros. The increase of net wealth in the form of property is of particular significance here; this is normally paid off by the time the individual retires. With the beginning of the transition to retirement (65+ age group), individual total net assets do fall a little due to the draining of the asset base and advance transfers of wealth to subsequent generations. However, older members of the population continue to have more than 120,000 Euros of net wealth at their disposal.

In comparison with 2002, the 56-65 year age group and the 75+ group demonstrate the highest increase in wealth. For the latter of these two groups, the cohort effect as well as demographic phenomena such as socio-structural selective mortality[18] and the re-migration behavior of elderly foreigners all have an impact. The affluent constitute a relatively high proportion of this age group and thus increase the chances of an average higher wealth in comparison with other age groups. For the 56-65 year age group, alongside typically high lifetime earnings, inheritances[19] also play a significant role in the above-average wealth increase of this group.

Alongside the differences in total net wealth between the new and the old states discussed above, it is striking that, predominantly, the elderly (66 years and above) in the new states occupy a wealth position which is significantly below average (around 40 percent measured against the overall mean value for the whole country across all age groups) in comparison with 160 percent in the West. This gap has further widened since 2002. This distinct disadvantage can be explained by a lack of accumulation opportunities for the residents of the former GDR. This deficit became more prominent during the years of economic stagnation between 2002 and 2006 due to high unemployment risk and low earned income and the selective East-West migration. Another important factor which has an impact on the wealth position of this group is the low proportion of property ownership in East Germany where the declining market value of property—without the corresponding reduction of a possibly still existing debt—is an important parameter for individual asset accumulation.

For the middle age group (36-65) a significant decrease in wealth can be detected in East Germany. Depending on the age group, this ranges from 7,000 to 14,000 Euros, which corresponds to a relative drop of 10 percent to 17 percent. It can be assumed that the introduction of Unemployment Benefit II contributed to a considerable dissaving among the unemployed, since the benefit stipulates that individual assets must first be used up before claiming entitlement.[20] Due to the significantly higher risk of unemployment, this has a much greater impact on the new states.

Wealth and Employment Position

Apart from inheritances and gifts, current or previous employment represents an important source of private wealth accumulation. The amount of savings is determined by employment position and the corresponding income. When interpreting the results of a distribution of wealth by employment position, the different incentive structures and need among the self-employed, civil servants, laborers and white-collar workers to accumulate wealth for pensions must be borne in mind. Social insurance and pension claims made by those employees making mandatory national insurance contributions as well as civil servants are not included in this analysis.

Whereas in 2007 unskilled or semiskilled employees only had wealth of around 35,000 Euros at their disposal, this sum totalled more than 70,000 Euros among qualified personnel (e.g., foremen, certified tradesmen). Employees with broad managerial functions achieved an average individual net wealth of around 119,000 Euros.

When subdivided according to career progression, we can see that civil servants in simple or middle service have a net wealth of more than 63,000 Euros at their disposal and thus command as much wealth as certified tradesmen or employees with a qualified occupation. Those in the upper grade of the civil service or executive officers, on the other hand, command an individual net wealth of more than

18 See Ralf. K. Himmelreicher, Daniela Sewöster Rembrandt and Anne Schulz (2008): Die fernere Lebenserwartung von Rentnern und Pensionären im Vergleich. WSI Mitteilungen 5, pp. 274-280.

19 See Marc Szydlik and Jürgen Schupp (2004): Wer erbt mehr? Erbschaften, Sozialstruktur und Alterssicherung. Kölner Zeitschrift für Soziologie und Sozialpsychologie 56, pp. 609-629.

20 See also Remarks on the Correlation between Changes in Wealth and Unemployment (Figure 5).

Table 3
Net wealth according to employment position in 2002 and 2007

	2002			2007		
	Mean	Negative or no wealth	Population structure[1]	Mean	Negative or no wealth	Population structure[1]
	Euro	Share in percent		Euro	Share in percent	
In training, internship, military service, civil service	4 837	60.9	8.0	10 876	46.7	6.9
Unqualified labourers, semiskilled workers, white-collar workers without educational qualifications	35 915	39.4	10.6	34 418	39.0	10.0
Skilled workers and craftsmen, white-collar workers with simple tasks	43 788	27.4	9.9	45 891	29.7	11.2
Foremen, master craftsmen, polishers, white-collar workers with educational qualifications	68 212	17.2	13.6	71 535	17.0	13.7
White-collar workers with broad managerial functions	115 916	9.8	8.1	118 856	8.7	8.1
Civil servants in simple or middle service	66 235	19.9	1.3	63 118	11.6	1.3
Civil servants in the upper grades of the civil service or executive officers	138 300	7.3	2.6	140 334	7.5	3.0
Self-employed without employees	134 701	21.4	2.8	177 194	17.9	3.5
Self-employed with 1-9 employees	292 969	8.5	2.2	345 614	11.0	2.0
Self-employed with 10 or more employees	1 087 895	8.5	0.3	1 111 103	14.2	0.5
Not economically active, unemployed	58 488	41.3	14.2	51 113	49.0	13.4
Retired, pensioners	96 513	22.7	26.3	113 594	20.4	26.3
Total	**80 055**	**27.9**	**100.0**	**88 034**	**27.0**	**100.0**

1 Those in private households above the age of 17 years.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

140,000 Euros which is over 20,000 Euros more than employees with broad managerial functions such as directors, chief executives or boards from large companies.

As expected, the wealth of the self-employed turns out to be highest. On the one hand, the self-employed invest more in provisions for old age in the form of private insurances; on the other hand, they make these investments directly out of the company's assets. The bigger the company, the higher the individual wealth of the self-employed person. In 2007, this was a little more than 175,000 Euros for self-employed people with no employees and more than 1.1 million Euros for self-employed people with more than 10 employees.

The non-active population and the unemployed have assets which are well below the average—in 2007, a little more than 50,000 Euros. Pensioners command an above-average wealth, which is dictated by life cycle (114,000 Euros) due to the fact that this group, in comparison with those who are currently employed, have already accumulated their wealth over a longer time period.

The biggest changes in net wealth since 2002 are among the groups of self-employed with—depending on the number of employees—between 20,000 and 50,000 Euros and pensioners with around 17,000 Euros. In 2007, the non-active population and the unemployed commanded around 13 percent (approximately 7,400 Euros) less net wealth than the same group in 2002.

Significant Correlation between Wealth and Income

Although disposable income[21] is considerably less concentrated than wealth (without social insurance claims), there is a close relationship between the distribution of these two economic factors. Figure 3 represents the arithmetic mean and median values of individual total net *wealth* divided by deciles of disposable household income weighted according to need for 2002 and 2007.[22] For both years, as expected, a positive and statistically significant correlation is clearly demonstrated: In 2007, the tenth of the population with the highest income had, on average, almost 320,000 Euros of individual assets at their disposal, whereas the corresponding value for the tenth of the population with the lowest income totaled only a little more than 30,000 Euros.

The average wealth of the lowest 30 percent in terms of income has fallen by a nominally small amount since 2002. From the eighth income decile upwards,

21 See Frick, Joachim R. and Grabka, Markus M. (2008): Niedrigere Arbeitslosigkeit sorgt für weniger Armutsrisiko und Ungleichheit, In: DIW Weekly Report, Jg. 75, Heft 38/2008, pp. 556-566.

22 In order to take into consideration the economies of scale of common economic management in multi-person households and the corresponding lower income needs of additional household members, here a standard need weighting is used according to the modified OECD Equivalence Scale. According to this scale, children under the age of 14 are allocated a weight of 0.3 and older household members are assigned 0.5.

clear increases in wealth can be observed. In the upper tenth of income stratification, the improvement between 2002 and 2007 is around 60,000 Euros.

Correlation between Income and Wealth Poverty

A central function of wealth is the stabilization of consumption in the case of loss of income.[23] This is particularly applicable during the transition to retirement. Unlike in the case of relative income poverty, there is no generally recognized definition of wealth poverty. Analogue to the determination of income poverty, in the following a person is defined as relatively wealth poor if they have a weighted net household income of less than 60 percent of the median of the entire population per capita.[24] The proportion of adults affected by relative income poverty in 2007 was around 17 percent (Figure 4). As wealth is much less equally distributed than income, the rate of those affected by relative wealth poverty is considerably higher at 43 percent. In total 12 percent were both relative income and wealth poor, whereas, although, more than 5 percent of the total population counted as income poor, they were at the same time able to fall back on appreciable wealth.

With increasing age, the proportion of those which are both income and wealth poor and the proportion of those who are income poor but do not suffer from wealth poverty increases. Of those individuals who are living in households where the head of the household is over 65, 14.7 percent are income poor. Half of them can draw on assets within the household in the case of income poverty and thus reduce possible gaps in their provision for old age. At the same time, we must assume that this "security function" can be used only once since, in old age, further wealth accumulation very rarely takes place.

Significant Influence of Unemployment on Wealth Mobility

Although the time specific wealth distribution figures for 2002 and 2007 presented so far allow comparisons between groups over the course of time, they do not make it clear whether and how significantly the level and composition of individual

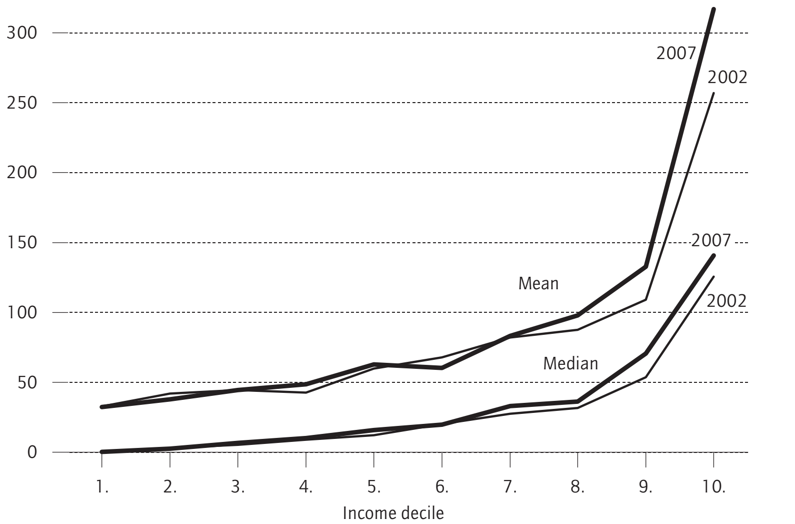
23 Here, it must be noted that the different forms of investment feature differing liquidity, which means that, in the case of loss of income, not all assets can be liquidized in every case.

24 In 2007, the relative wealth poverty threshold was at around 13,150 Euros per capita, which was considerably higher than use of individual wealth. What is reflected in welfare analysis is the "redistribution process" which usually occurs within the household and according to which individuals profit from the assets of other household members although they have no wealth of their own.

Figure 3

Level of individual[1] wealth by deciles of disposable household income[2]

In 1 000 Euros



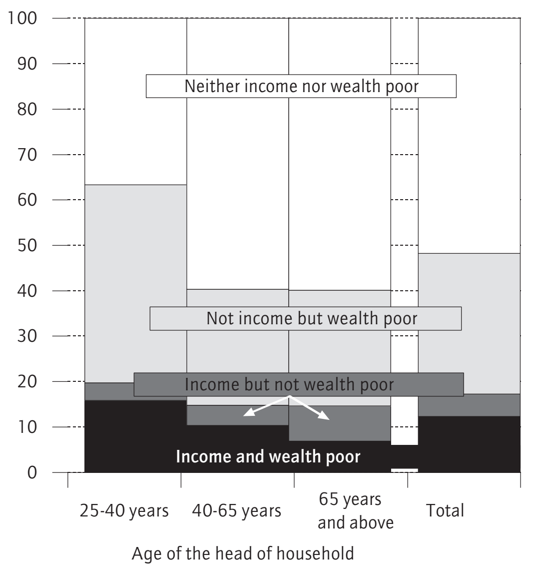
1 Those in private households above the age of 17 years.
2 Equivalence weighted net household income from the preceding year.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

Figure 4

Relative income poverty[1] and relative wealth poverty[2] in 2007

In percentage of the population[3]



1 Poverty line at 60 percent of the median of the net household income of the entire population, weighted according to need, using the modified OECD Equivalence Scale.
2 Relative wealth poverty on the basis of less than 60 percent of the per capita median of the net household wealth of the entire population.
3 Those in private households above the age of 17 years.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

Table 4
Individual wealth mobility[1] **from 2002 to 2007**
Shares[2] in percent

	Wealth position 2007												
	Deciles	In debt	Without wealth	3	4	5	6	7	8	9	10	Total	*For information only:* People according to wealth position in 2002	Median of change 2002 / 2007
Wealth position 2002	**In debt**	**40**	20	14	8	7	4	2	2	1	1	100	6	7584
	Without wealth	10	**46**	19	9	7	4	2	1	1	1	100	20	0
	3	12	19	**25**	18	12	6	5	1	1	1	100	9	1749
	4	8	16	16	**23**	17	10	5	3	2	1	100	10	1699
	5	5	11	7	15	**24**	18	9	5	3	3	100	9	3789
	6	3	7	6	7	16	**25**	18	9	4	3	100	9	1843
	7	2	5	2	4	7	17	**30**	20	8	4	100	9	2504
	8	2	3	1	2	2	8	18	**32**	23	7	100	9	2470
	9	1	2	1	1	2	5	8	20	**39**	19	100	9	−10765
	10	2	3	1	0	1	1	4	8	18	**63**	100	9	−75675
	Total	**7**	**17**	**10**	**9**	**9**	**9**	**9**	**10**	**9**	**9**	**100**	**100**	**378**

1 The lower section of wealth distribution is a pseudo decile (in debt without wealth).
2 Those in private households above the age of 17 years.
Interpretation aid: the value 63 in the bottom right field indicates that, of those people who were in the upper decile in 2002, 63 percent belonged in the same decile in 2007.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

wealth varies. SOEP data allows such longitudinal analysis over a 5 year period. Table 4 indicates how many people maintained or changed their wealth position between 2002 and 2007. Similar to analysis on income mobility, the margins of wealth distribution are relatively stable over time: more than 40 percent of those in debt as well as those with no wealth are still in the same situation five years later; in the middle wealth decile, this only applies to almost a quarter of cases. At the upper end of wealth distribution, however, the tendency to remain in that position increases significantly and, in the top decile, it reaches its maximum value with more than 60 percent.

The mean change of individual wealth from 2002 to 2007 as measured against the median totaled only just under 400 Euros[25] for the entire population. This value varied across the wealth distribution: while in the middle wealth groups, wealth increased by around 2,000 to 4,000 Euros, in both of the upper wealth deciles the net wealth sank by 11,000 or around 75,000 Euros.[26] The biggest increases in wealth in 2002 were achieved by those in debt. Here the difference is about 7,500 Euros. This group includes, for example, mortgaged property owners who, during the ongoing process of mortgage repayment, are able to reduce their indebtedness and consequently increase their net wealth.

As already indicated in the cross-sectional analysis, unemployment significantly effects, not only the income situation, but also wealth. The SOEP longitudinal data prove this correlation during the survey period from 2002 to 2007 (Figure 5). While people who are not unemployed (including the economically inactive) could increase their net wealth, by around 18,000 Euros to over 123,000 Euros in 2007, unemployment was affecting not only the lower wealth levels[27] in the first year of the survey but also causing below average growth rates. In 2002, the long-term unemployed (for over 40 percent of their potential working life) on average lost over 4,000 Euros and thus over 10 percent of their already limited wealth.

Conclusion and Outlook

In 2007, around two-thirds of the population had no or only very limited individual net wealth at their disposal (monetary and tangible assets without vehicle and household belongings.) In contrast to this,

25 Measured against the arithmetic mean, this is approximately 10,000 Euros.

26 In comparison with the cross-sectional findings presented above, various effects contribute to this surprising result: firstly, there is higher probability of very high losses among those with the highest wealth, secondly, when focussing on the 2002 wealth position, those who have newly come to wealth are not taken into consideration because of wealth profits, and thirdly, wealth regrouping through gifts and early inheritances, particularly of property, also has an effect.

27 In order to take the length of unemployment into consideration, the proportion of months spent unemployed in relation to the months of potential gainful employment during the period between 2002 and 2007 is calculated. Potential months for applying for work are those months in gainful employment (full and part-time including short-term positions) as well as unemployment. Time in training and education, retirement, maternity leave, military or civil service as well as housewifery are not taken into consideration here.

the richest ten per cent had more than 60 percent of total wealth at their disposal. In comparison with 2002, the concentration of wealth intensified. Analyses of individual wealth mobility show that—similar to income—particularly on the margins of wealth distribution there are high levels of inertia.

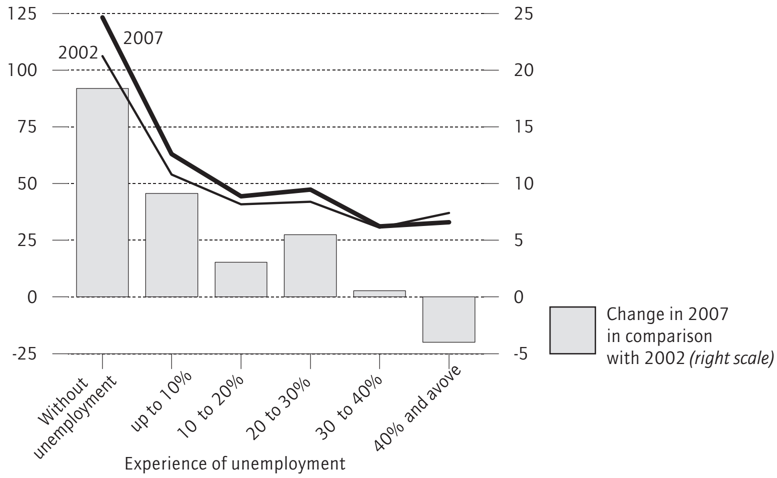
Against the backdrop of the increasing need to make private provisions for old age, the analysis of individual wealth is of particular importance. Although the poverty risk of current pensioners is below average, for future pensioner cohorts—also due to breaks in employment forced by unemployment—we still have to reckon with an increase in age-related poverty risk. The fact that the development of individual wealth in the middle aged groups in East Germany demonstrates a drop of more than 10 per cent according to SOEP between 2002 and 2007 is alarming from a socio-political viewpoint because in the case of age-related poverty exacerbated by lack of income, it is only possible to fall back on wealth to a limited extent. This is also proven by the analysis on the correlation between income and wealth poverty as almost half of the elderly who are affected by income poverty are both income and wealth poor. Furthermore, it is critical that the income-weak groups less frequently obtain private pension insurance than those with higher salaries.[28] Thus the risk increases that old-age pensions drawn from state pension insurance will be insufficient for the maintenance of living standards of those with long-term low income from employment and the long-term unemployed. This is a result of the equivalence principle in pension calculations.

The analyses presented here refer to 2007 and thus represent the situation before the current financial crisis. Although the changes, particularly in the equities market, could be dramatic, the impact on total net wealth is rather limited. Particularly financially well-off investors with well defined risk diversification and long-term oriented wealth investments will, on the whole, be able to weather the (erratic) processes on the capital markets. Although these processes are driven to a great extent by global factors, the continued development of wealth distribution in Germany is also dependent on national parameters. An important instrument for this is the inheritance tax law which was reformed on 1/1/2009 with a significant increase of tax allowances, which is quite likely to lead to a further increase in wealth concentration. Reconsideration of these regulations would, therefore, be imperative in order to strengthen the principle of equality of opportunity in Germany as

Figure 5

Net wealth and experience of unemployment 2002-2007[1]

In 1 000 Euros



1 Months registered as unemployed in relation to the months of potential gainful employment.

Sources: SOEP, DIW Berlin calculations. **DIW** Berlin 2009

social origins will be decisive in determining the level of expected inheritances.[29] With the current inheritance and endowment tax regulations, the social structure of wealth inequality will continue to be preserved.

The increasing wealth inequality is also likely to lead to an increase in income inequality, as the flat rate withholding tax which comes into force on 1/1/2009 applies to income from assets at a flat rate of 25 percent (plus solidarity supplement and possible church taxes), whereas according to previous legislation, the individual tax rate was applied. A high amount of wealth normally comes hand-in-hand with high income, which means that the well-off and often those groups with the highest salaries will profit most from this reform.

28 See Axel Börsch-Supan, Anette Reil-Held und Daniel Schunk (2007): The Savings Behaviour of German Households: First Experiences with State Promoted Private Pensions. Mannheim Research Institute for the Economics of Ageing (MEA), Nr. 136.

29 See Szydlik and Schupp a.a.O.

DIW Berlin
Mohrenstraße 58
10117 Berlin

Tel. +49-30-897 89-0
Fax +49-30-897 89-200

ISSN 1860-3343
Price: Euro 10.–
www.diw.de/english/produkte/
publikationen/weeklyreport
Translated from the German.