

# HIGH REDISTRIBUTION, LOW MOBILITY

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This is a translated version of the original German-language chapter "Starke Umverteilung, geringe Mobilität", which is the sole authoritative text. Please cite the original German-language chapter if any reference is made to this text.

## SUMMARY

According to its legal mandate, the German Council of Economic Experts regularly presents an updated analysis of the distribution of income and wealth on the basis of household surveys. In international comparison, Germany is among the countries with **moderate inequality of household net income**. By 2005, there was a noticeable increase in this inequality whereupon particularly households with low income suffered relative setbacks. Subsequently the inequality temporarily decreased slightly and increased slightly again by the most recently available observation year 2013.

Wealth is considerably more unevenly distributed than income. However, it is difficult to classify the magnitude in international comparison, because the data is biased, due among other things to the lack of consideration of public pension entitlements. The fact that **less private net wealth** is accumulated in Germany than in most European countries has various reasons. For example, the extensive tax and transfer system reduces the incentives and options open to accumulate private wealth in particular for lower-income households.

The **tax and transfer system** redistributes a substantial amount of income and thus contributes to social equity. The unevenly distributed market incomes are thereby translated into considerably less unevenly distributed net incomes. Trying by to counter the concentration of wealth, such that the intensity of the redistribution of income is increased, could prove to be counterproductive, as it may weaken the incentive to earn high incomes in the first place by gaining qualifications and showing initiative and commitment.

Due to the reduced incentives to invest and take on risks, it is not advisable to revive the **wealth tax**. This would be barely possible without exceptions for business assets. Such an exemption is already problematic for the inheritance tax. With respect to inherited assets, the German Council of Economic Experts continues to regard an **inheritance tax** with a broad assessment basis, but low rates, to be the correct approach – contrary to the recently found compromise that unduly spares companies.

**Increasing income mobility** would be a better approach to preventing a rigid concentration of wealth. In the attempt to improve the equality of opportunity and thus the possibilities for upward social mobility, the focus should be placed in particular on early childhood education. In addition to expanding childcare facilities, it is important that childcare services are in fact utilised. Furthermore, transfer possibilities between tracks in the education system should be increased.

# I. INTRODUCTION

788. The discussion regarding the distribution of income and wealth has found its way onto the global agenda. The goal of reducing inequality was added to the final document of the G20 summit in China. From the perspective of the wealthier economies, this discussion usually focuses on the fact that the **inequality of wages, income and wealth** has increased in many countries over the past few decades. But the increasing inequality has a different significance depending on the country's state of development and should not be observed in isolation from the development of the income level.

This is because the increase in inequality in the emerging markets and less developed nations is accompanied by a process of economic catch-up with the developed economies. This causes high rates of income growth in the middle of global income distribution. **Global income inequality has decreased** accordingly across all countries of the world (Lakner and Milanovic, 2016).

789. While income inequality has increased in many industrialised countries, **development in Germany** appears to be **relatively stable**. Income inequality rose between 1999 and 2005. Thereafter it fluctuated slightly and increased barely until 2013. The regional differences in disposable income decreased within Germany between 1995 and 2012 (OECD, 2016). Wage adjustment in eastern Germany towards the level in the west was a likely contributing factor. [↘ CHART 83](#)

Germany exhibits moderate income inequality in international comparison. Before taxes and transfer payments, income inequality is somewhat higher than the OECD average, while after taxes and transfer payments, it is somewhat lower. This accounts for a comparatively **high degree of redistribution** in Germany. The German tax transfer system was among the most vigorous redistributing social systems in the OECD in 2011 (OECD, 2015).

790. In contrast, the distribution of private wealth is more striking in international comparison. Firstly, Germany is one of the countries with the greatest wealth inequality. Secondly, the estimated **private net wealth is comparatively low**. However, difficulties with data collection could be a factor in this. In addition, the different country-specific social security systems make it more difficult to compare assets internationally. If claims based on vested pension rights are included, wealth in Germany increases considerably and wealth inequality decreases (Bönke et al., 2016).

791. The extent to which rising inequality increases or hinders economic growth is currently the subject of intense discussion (GCEE Annual Report 2015 items 498ff.). On the one hand, an unequal distribution of income and wealth is associated with a high **incentive for individual effort**. On the other hand, **distribution conflicts** can contribute to social and political instability. This is likely to be the case in particular if parts of the population have few prospects for success ex ante, for example as a result of limited access to the education system or investments not made due to financial restrictions (Benabou, 1996; Perotti,

1996). There is **no clear** empirical **evidence supporting a connection** between inequality and economic growth; consequently, individual empirical results should be interpreted with considerable caution (GCEE Annual Report 2015 box 17).

792. Whether the existing income and wealth differences in a society are acceptable is a **normative question** that cannot be further discussed here. However, a scientific analysis of the distribution and redistribution of income and wealth can determine which factors presumably increased or decreased the income and wealth inequality and which economic and fiscal policy measures are likely to impact the inequality in which way. Since conflicting goals often arise with the use of these instruments, the scientific analysis can also elucidate the careful consideration of the issues.

## II. HIGH DEGREE OF INCOME REDISTRIBUTION

793. In the discussion surrounding the distribution of income, various starting points are used that are discussed below. First it will be shown that the detachment of the growth of household income from the development of GDP is not necessarily an indicator of high inequality. The distribution of household income over time before and after levies, taxes and transfers on the basis of survey data exhibits **no noticeable increase in inequality** over the past decade. This also applies to the distribution of wages, which represent a major component of income for many households.

### 1. Functional and personal income distribution

794. At the macroeconomic level, the **functional distribution of income** between employees and equity holders represents the starting point for analysing the development of income (GCEE Annual Report 2012 items 48ff.), whereby the overall wage share indicates the share of earned income relative to total income. However, the functional distribution of income is not an appropriate benchmark for the distribution of prosperity in a society. For example, spreads within the wage distribution cannot be depicted.
795. The **wage share's informational value** with respect to the prosperity of employees is **limited**, as it does not include employees' capital income. In addition, the earnings of the self-employed, which are difficult to ascertain, are approximated based on the average earned income of dependent employees (GCEE Annual Report 2012 box 20). The public debate over equitable distribution is supported, among other things, by the fact that capital income has risen disproportionately compared to earned income. However, a decrease in the wage share has no informational value with respect to the wage outcome of a specific group of employees, for example those in the low wage segment. After the wage share had fallen considerably in the middle of the past decade, it rose again noticeably

after the financial crisis in 2008 and has been stable at around 63 % since 2009.

↳ CHART 102 LEFT

796. Income analyses meanwhile focus on the examination of data at individual and household level, which brings the **personal distribution of income** based on surveys to the fore. Representative results can be derived for the total population based on the survey sample using raising factors. However, there are limits to the explanatory power due to the voluntary nature of participation and the personal subject matter of the survey. In particular those earning high incomes are not captured representatively.
797. The German Council of Economic Experts resorts in particular to the data of the German **Socio-Economic Panel (SOEP)** in its regular analyses. This is a representative, voluntary periodic survey of households that has been conducted annually for more than three decades. The SOEP contains comprehensive data on individual income with a time lag. Since the income data is collected retrospectively and subsequently processed, it is currently only available up to the year 2013.



Various survey data sets are available for the analysis of income. In general, a potential bias can appear in the data due to the voluntary nature of participation. Certain social groups are represented more comprehensively by means of additional surveys in the **SOEP**. The annual panel structure in conjunction with the high quality of the personal interviews is a unique selling point of the SOEP. The sample size is in fact considerably larger in the **microcensus**, a survey of 1 % of all private households in Germany. However, the panel survey of the permanent sample is conducted in written form, unlike the SOEP. The use of written questionnaires is negatively correlated with the recruitment success for the permanent sample of households willing to be surveyed (Nimmergut et al. 2004) and can thus result in bias. The **Sample survey of income and expenditure (EVS)** is a voluntary written survey of private households in Germany. Data is collected every five years on the income, wealth, consumption and housing situation as well as on the provision of durable consumer goods. The households participating in the EVS survey can not be tracked beyond the separate waves. For international comparisons, the EU-SILC data set, which uses information from the microcensus for Germany, and the Luxembourg Income Study, which resorts to SOEP data, are available, among others. However, international comparisons exhibit substantial problems by their nature, because the comparability of the data is not given and the basic institutional environment differs significantly from country to country. But the two data sets do not deliver fundamentally different results.

798. Two different income concepts are used for this analysis of income distribution. The first concept is that of **market equivalent income**. It covers the income of household members earned from self-employment and dependent employment, from assets and owner-occupied residential property as well as from private transfer payments (GCEE Annual Report 2014 item 689). An **equivalence weighting** is performed to enable a person-based analysis of the income ascertained at household level (Goebel et al., 2015). The commonly used modified OECD scale assigns the head of household a weight of 1, all other household members aged 15 and over a weight of 0.5, and children under the age of 15 a weight of 0.3. This accounts for the economies of scale associated with shared

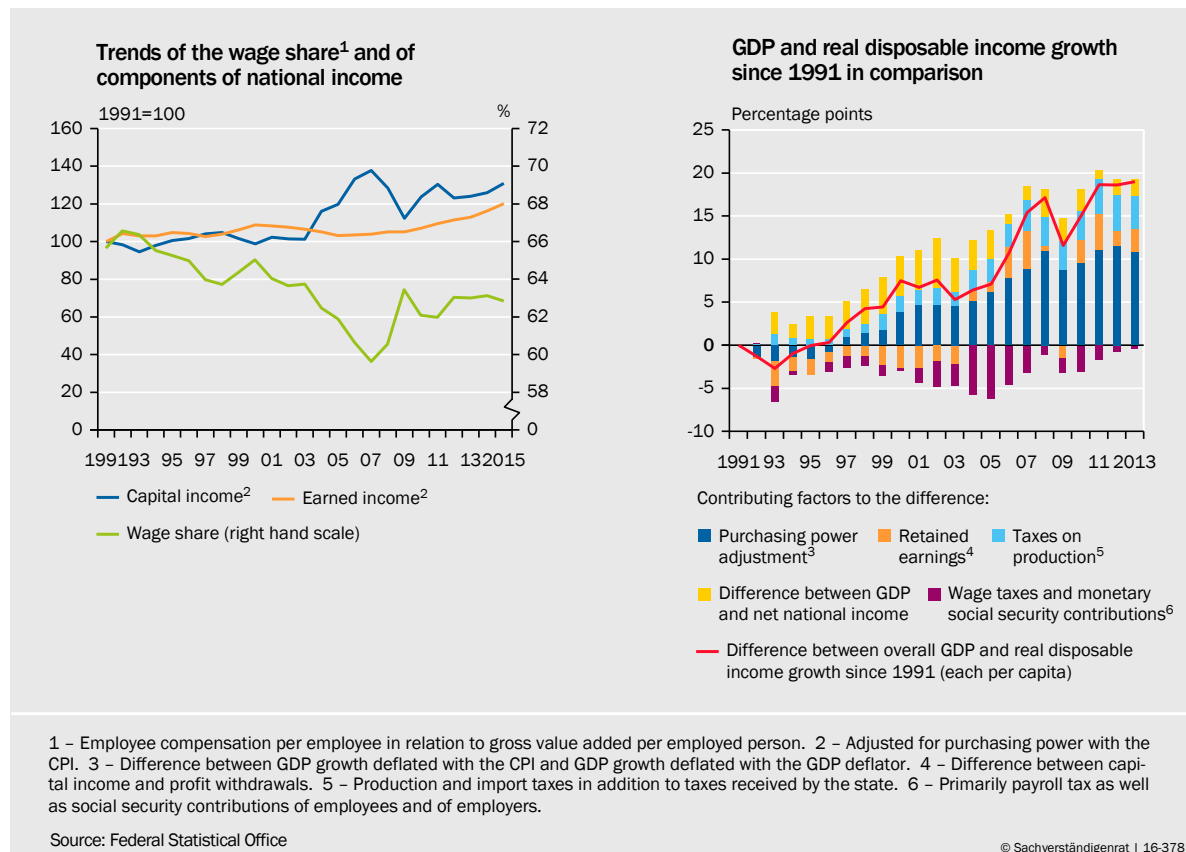
households. The actual subject of the analysis is ultimately the virtual, individualised distribution of income.

799. A household's market income forms the basis for the calculation of **household net income**. The statutory pensions and government transfer payments are added to this market income, whereas income tax and the employee's portion of mandatory social security contributions are deducted. The household net income is also equivalence-weighted. Again, the actual subject of analysis is the virtual, individualised distribution of household net income. The comparison of market income and household net income shows the intensity of redistribution through the tax and transfer system.
800. With every analysis based on microdata from household surveys such as the SOEP, the question arises as to how well it can **replicate the trend at an aggregate level** – represented by the data of the national accounts (VGR) of the Federal Statistical Office of Germany. With respect to the income data of the SOEP, the fact that the development of price-adjusted average household net income differs considerably from the development of the price-adjusted GDP per capita stands out.

Whereas the latter figure increased by a total of 28.7 % in the period from 1991 to 2013, an increase of only 12.0 % was recorded for average household net income. In the discussion regarding distribution, the fact that GDP per capita rises considerably faster than household net income is frequently interpreted as a sign of rising inequality (Nolan et al., 2016).

▾ CHART 102

Income-related trends of the economy

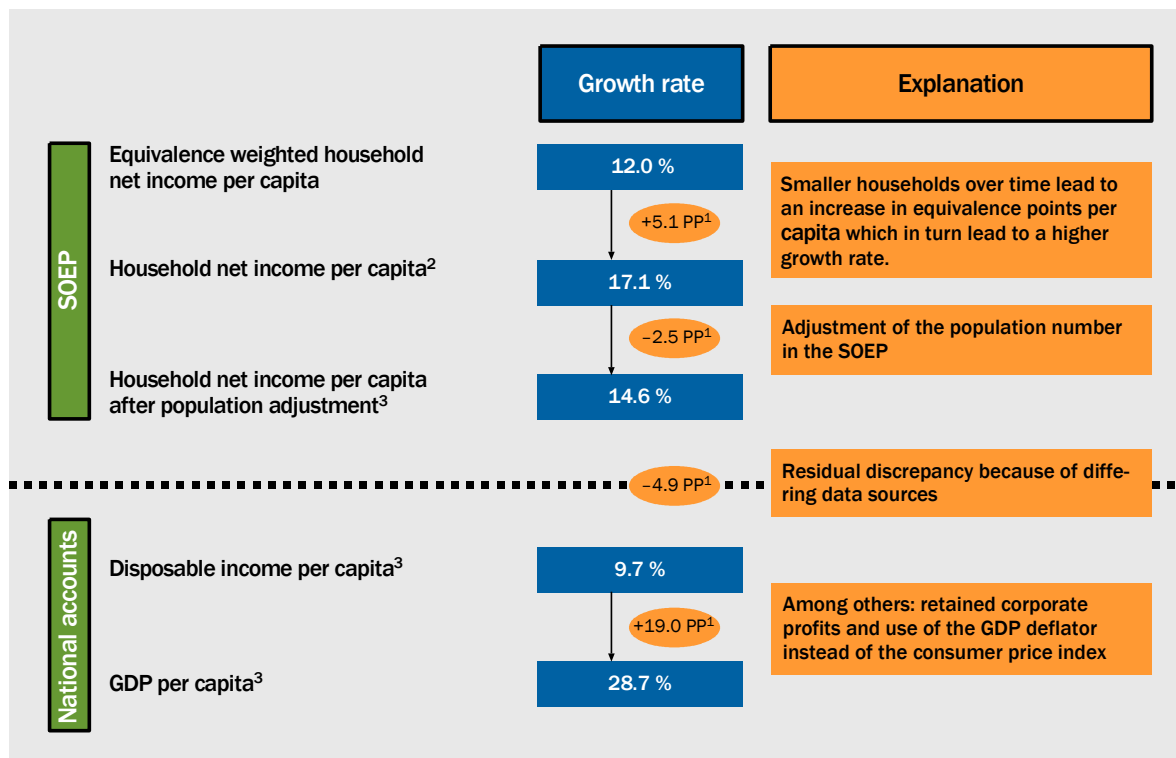




- 801. In addition to the problems presented by different sources of data, it must be noted that GDP per capita and average household net income are essentially incomparable. For instance, GDP includes components such as taxes and depreciation charges that are not included in household net income. The **real disposable income** of the private household sector, which is also reported in the national accounts, presents a more fitting comparative figure for the SOEP's household net income.
- 802. Even this figure is conceptually not identical to the data from household surveys. For instance, the national accounts include the population living in private households, persons residing in collective living quarters and private non-profit institutions serving households, for example churches and associations. Other **differences** relate to the income of owner-occupied residential property and portions of capital income (Schwahn and Schwarz, 2012). According to the national accounts, the growth rate of real disposable income per resident is 9.7 % between 1991 and 2013 and thus clearly lower than the growth rate of GDP per capita. It also lies below the growth rate of average household net income of 12.0 % from the SOEP. [↘ CHART 103](#)
- 803. For an appropriate comparison of the growth rates, it must first be taken into account that the household net income in the SOEP is determined based on an **equivalence weighting**. If the equivalence weighting in the SOEP data is eliminated and the income trend per capita observed, the growth rate of average net

[↘ CHART 103](#)

Illustration of varying growth rates of different income types from 1991 to 2013



1 – PP=percentage points. 2 – Instead of equivalence-weighting by the modified OECD-scale a weight of 1 is assigned to every household member. 3 – A modified population number is applied. The Federal Statistical Office corrected the population numbers from 2011 onwards in the course of the 2011 Census. These numbers are used from this date on. Numbers before this date are calculated by the previous rate of change.

Sources: Federal Statistical Office, own calculations based on SOEP v31

income rises from 12.0 % to 17.1 % in the period of analysis. The fact that the average household size has become smaller may have contributed to this result (Peichl et al., 2012).

Furthermore, the **population size** after extrapolating the SOEP data to an aggregate level does not agree precisely with the figures published by the Federal Statistical Office. Taking this effect into account, the growth rate of the average net income per capita between 1991 and 2013 falls to 14.6 %.

804. Consequently, a **discrepancy** of 4.9 percentage points remains between the increase in average household net income and the increase in real disposable income after adjusting for these effects. Considering the length of the observed period and the conceptual differences, this is to be regarded as **relatively small**. It corresponds to an average annual deviation of the growth rate by 0.15 percentage points. The development of disposable income measured as moderate based on the household data of the SOEP is thus reflected to a similar extent in the aggregate national accounts figures, when real disposable income per capita instead of GDP per capita is set as benchmark.
805. The difference arising within the national accounts of 19 percentage points between the growth of GDP adjusted for prices and real disposable income per capita has various reasons. One important reason is **differing price trends**. In the case of the disposable income of private households, prices are adjusted using the official consumer price index (CPI), which however deviates considerably from the implicit deflator of GDP. The deflator is a Paasche index, which in contrast to a Laspeyres index such as the CPI, takes into account substitution towards less expensive goods. Therefore as a rule, the inflation rate measured over the long term is lower with a deflator. In addition, the GDP deflator not only takes into account the prices for consumer goods, but also those for capital investment and foreign trade.

In contrast to the CPI, the basket of goods is updated annually for the deflation of consumption expenditures, which results in an increase of 38.7 % in the deflator of private consumption in the period from 1991 to 2013, whereas the CPI increased by 47.8 %. As a result, the two indices differ in the volume of observed goods and in the calculation method. Between 1991 and 2013, the GDP deflator increased substantially less, by 35.0 %, than the CPI. Taking into account the different method of price adjustment, the discrepancy between the growth rates falls from 19 to 8 percentage points. [↘ CHART 102 RIGHT](#)

806. The remaining discrepancy can be explained by reconciliation items from GDP to disposable income. This includes a sharper increase in amortisations as well as in production and import levies compared to GDP. The increased **retained corporate and investment earnings** is also a significant item. This has increased continuously since the turn of the millennium due to the process of reducing debt and the increasing international linkage of companies (GCEE Annual Report 2014 items 421ff.). It counts as part of GDP, but is not included in the disposable income of private households. It accounts for 2.7 percentage points of the remaining 8 percentage points.



## 2. Distribution of income

807. According to the SOEP data, the average market equivalent income, hereinafter referred to simply as **market income**, amounted to around € 24,500 in 2013, while the median was approximately € 19,700 in 2010 prices. Furthermore, the average market income in western Germany was considerably higher than in eastern Germany. ↘ TABLE 31 When examining the distribution of income, the emphasis is typically placed on quantiles of income values, whereby an income decile (percentile) represents the income value that separates a tenth (hundredth) of the population with respect to the income from the next tenth (hundredth) of the population with higher income. Consequently, 50 % lies above and 50 % below the median.

The market income at the ninth decile, i.e. of the individual who exhibits more income than 90 % of the population, was nearly 50 times greater in 2013 than the income at the first decile (90/10 ratio). This major difference is reflected in a high **Gini coefficient** of 0.49. The Gini coefficient is a standardised measure of inequality and takes values between 0 (perfect equality) and 1 (extreme inequality).

808. Many households earn only very little market income, whereby it must be considered that market income, among other things, **does not include benefits from the statutory pension scheme or company pensions**. Thus, persons with the 10 % lowest market incomes include a disproportionate share of persons aged 65 and older. Consequently, in the analysis of market income, the observation of all households disregards the fact that in many households no income is earned from employment.

Therefore, the German Council of Economic Experts also observes here individuals in **households with at least one member in working age**, i.e. house-

↘ TABLE 31

### Income<sup>1</sup> in 2013 based on SOEP

	Market income			Net income		
	Germany	Western Germany	Eastern Germany	Germany	Western Germany	Eastern Germany
<b>Individuals in all households</b>						
Mean	24,543	25,900	18,169	22,577	23,417	18,630
Median	19,687	20,788	14,234	19,597	20,290	17,073
Gini coefficient	0.494	0.485	0.526	0.292	0.295	0.259
90/10-ratio	49.1	33.2	415.1	3.6	3.6	3.3
<b>Individuals in households with at least one member in working age<sup>2</sup></b>						
Mean	28,747	30,118	22,206	23,043	23,874	19,077
Median	24,156	25,386	19,868	20,074	20,612	17,679
Gini coefficient	0.426	0.422	0.432	0.299	0.300	0.273
90/10-ratio	16.1	13.9	36.6	3.7	3.7	3.6

1 – In euros and in prices of 2010. 2 – All individuals between the age of 15 and 64 are considered in working age.

Source: own calculations based on SOEP v3!

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holds with at least one person aged between 15 and 64. With an average of € 29,000, these individuals earn considerably higher market income compared with considering all households. The market income at the first decile also turns out to be noticeably higher. Therefore, at 16.1, the 90/10 ratio is significantly lower compared with the population as a whole.

809. The **real market income** of households with at least one member in working age has **developed differently within the distribution of income**. [↘ CHART 104 LEFT](#) Whereas those at the 90th and 95th percentile increased by 20 % and 26 % respectively in the period between 1991 and 2013, the market income of the median remained almost unchanged. In contrast, at the first decile the market income decreased by around 60 % until 2005. Since then, the income at the lowest decile has risen again slightly.
810. Calculations by the German Council of Economic Experts show that this decline in income until 2005 was associated with a comparatively sharp **decrease in hours worked**. The 10 % lowest earning individuals in households with at least one member in working age worked around 55 % fewer hours in 2005 than in 1991. One reason for this decrease may be the changed employment structure in the lowest income decile.

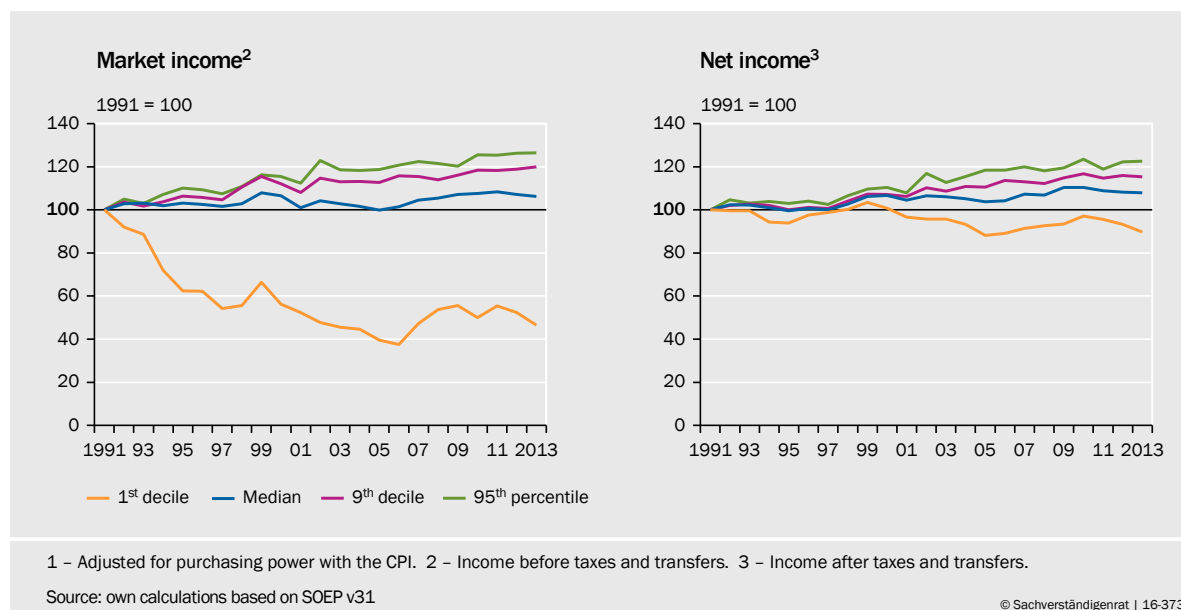
This becomes apparent by a view on the heads of household. While 9 % of the heads of household in the lowest income tenth were employed full time in 1991, this share had fallen to 3 % by 2005. The share of part-time employed heads of household in this group correspondingly increased from 8 % to 14 %. Most of the other heads of household in the lowest income tenth were not employed in 1991 and 2005. The majority of these households likely received social security benefits.

811. Due to **substantial redistribution**, the spread of **household net income** is considerably narrower than the spread of market income. Hereafter, individualised household net income will be referred to simply as net income. On average, net income was around € 22,600 in 2013, with median net income of around € 19,600. [↘ TABLE 31](#) The 90/10 ratio with respect to net income was only 3.6. With respect to inequality measures, there is no significant difference between the total population of households and the subset of households with at least one member in working age.

The redistribution compensates the larger spread of market income in **eastern Germany** compared with western Germany. One reason for this may be the higher income from social transfers in eastern Germany due to the higher level of unemployment there and the comparably higher statutory pensions. These social transfers are only taken into account when determining net income, but not market income.

Net income in the upper deciles has risen more sharply since 2000 than market income. The **redistribution intensity** has therefore decreased compared to previous years. However, this observation does not change the fact that the German tax and transfer system has effected a substantial redistribution at all times in the past two and a half decades. It is difficult to compare deciles of net

## ↘ CHART 104

Real income trends<sup>1</sup> for individuals in households with at least one member in working age

income and market income anyway, because they involve different individuals. Therefore, such a distribution analysis is not well suited to quantitatively measuring the effects of tax reforms and other major events.

- 812.** For households including at least one member in working age, real net income at the first decile decreased by around 10 % between 1991 and 2013. ↘ CHART 104 RIGHT The median and the highest income range of real net income increased in the same period.

The **increase in income inequality** in the past 25 years has been driven in particular by the period from 1999 to 2005. In this period, the Gini coefficient of net income rose from 0.25 to 0.29. It subsequently fell slightly to 0.28 by 2009 and finally rose again to 0.29 in 2013. ↘ CHART 105 LEFT

- 813.** A **decomposition of the Gini coefficient** enables assertions as to which income groups contributed substantially to the increase in income inequality. ↘ CHART 105 RIGHT For the period from 1999 to 2005, just below half of the observed increase in the Gini coefficient of net income with at least one member in working age can be attributed to the worsened income situation of the lower income half. The highest earning 5 % of individuals in these households are likewise responsible for almost half of the increase in inequality.

The small decline in income inequality from 2005 to 2009 can be attributed in particular to the slightly decreased income of the highest earning 5 % of individuals. The inequality increased again somewhat between 2009 and 2013, to which the highest earning 5 % of individuals likewise made a significant contribution. This increase can be attributed, among other things, to the increased inequality of capital income (Grabka and Goebel, 2013).

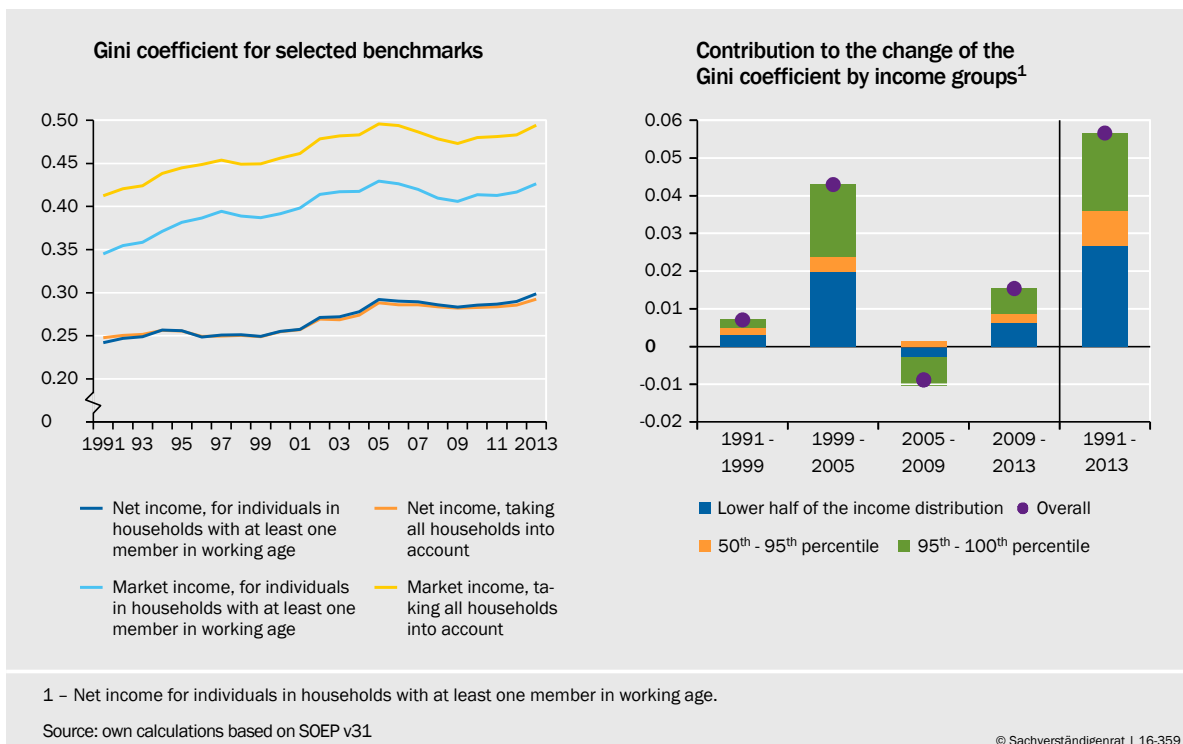
- 814.** The individual **income situation proves to be persistent** if the transition probabilities between ten equally sized income classes are estimated each for

three years, with starting years from 1991 to 2010. Approximately every third individual is in the same class of net income again, with around two-thirds of the individuals rising or falling at most by one category. ↘ CHART 106 RIGHT These shares have increased somewhat over time, which points to higher persistence of net income. The comparatively large risk of decline around the middle of the last decade has decreased since then in favour of better advancement opportunities. The development of income mobility implies that net income is relatively stable.

815. This is reflected in the **development of middle incomes**. This income group – often referred to as the middle class – is typically defined as the segment of the population with net income of between 67 % and 200 % of median net income (Grabka et al., 2016). In western Germany, the share of individuals with middle income decreased marginally between 1993 and 2013 in favour of an increase in high income individuals. ↘ CHART 106 LEFT Since there are more low income households in eastern Germany, the share of individuals with middle income is generally smaller there than in western Germany, but similarly stable over time. This makes the **development of the middle class unspectacular**.

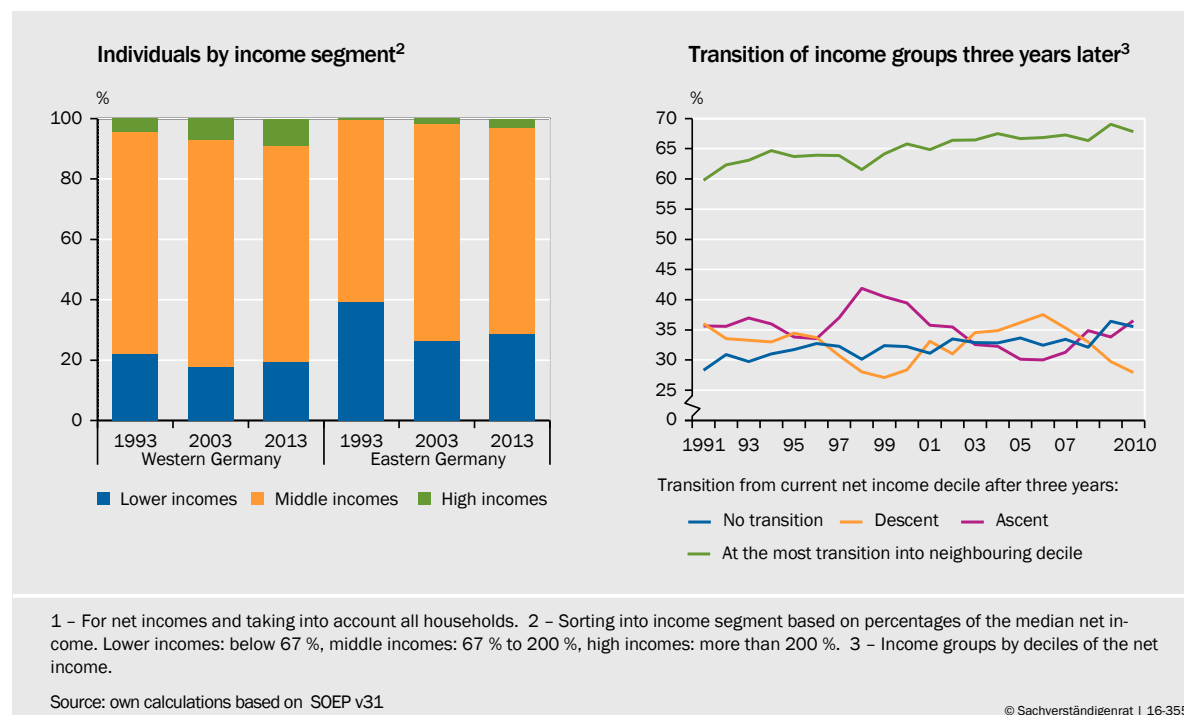
816. The development of **poverty risk** is closely related to the change in the inequality of net income over time (Cremer, 2016). The at-risk-of-poverty rate is defined in accordance with the convention of the European Council as the share of individuals whose net income is lower than 60 % of the median net income. Between 1998 and 2005, the at-risk-of-poverty rate rose sharply from 10 % to 14 % according to data from the Microcensus. It has increased a little further since 2005, whereas the share of recipients of minimum social security benefits in the past few years has declined (GCEE Annual Report 2015 item 495). The growth of the low wage sector reflects this development. ↘ ITEMS 752 FF.

↘ CHART 105  
Trends of income inequality



↘ CHART 106

Trends of mean income and income mobility<sup>1</sup>

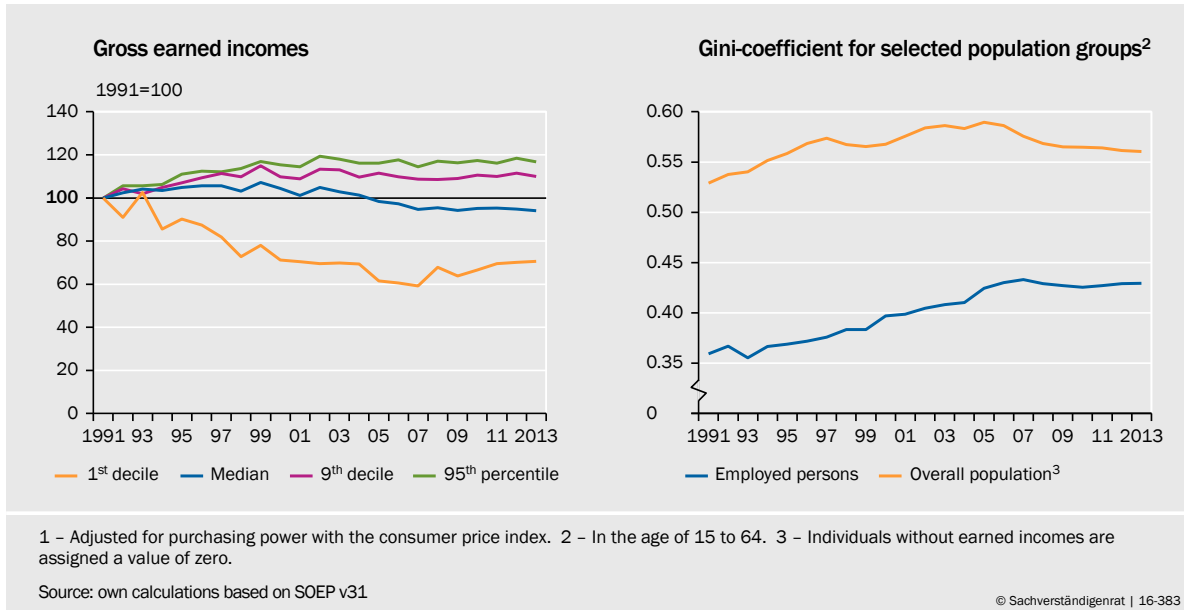


It is no coincidence that the development of the at-risk-of-poverty rate over time parallels the development of the income inequality measures. Like the Gini coefficient, the **at-risk-of-poverty rate** is a **distribution measure** and therefore cannot provide an estimate of poverty in Germany decoupled from the distribution of income.

### 3. Distribution of wages

- 817.** Most income is generated on the labour market. In 2014, around 62 % of gross income was attributed to **income from employment** (Federal Statistical Office, 2016a). The distribution of wages and wage inequality can be observed to ascertain the influence of labour market trends on income inequality. In contrast to the analysis of income, which takes the situation of the households into account, the wages of individual employees are viewed here – specifically gross income from employment.
- 818.** The median of **real gross income from employment** in 2013 was below the level of 1991. The median wage fell in particular between 1999 and 2005. The wages at the uppermost decile of the wage distribution rose until 2002. Since then, real wages have stagnated for this wage group. At the lowermost decile, real gross wages initially decreased considerably by 40 % by 2007, before a trend reversal set in. ↘ CHART 107 LEFT The sharp decline in hours worked at the lower end of income distribution in the period observed may be an explanation for the initially sharp decrease in wages. ↘ ITEM 810
- 819.** Biewen and Juhasz (2012) explain the increase in income inequality until the middle of the last decade mainly with wage inequality, which had risen until that

## ↘ CHART 107

Inequality of real gross earned income<sup>1</sup>

time. Since then, the **development of wage inequality** among employed persons has indicated no further increase in inequality (Möller, 2016; Felbermayr et al., 2016). ↘ CHART 107 RIGHT At the same time, wage inequality among the total working age population decreased slightly after 2005. The Federal Statistical Office has likewise ascertained an end to rising wage inequality based on the Structure of Earnings Survey (Federal Statistical Office, 2016b). For instance, the earnings gap between low and better earners remained almost constant between 2010 and 2014. This development cannot be attributed to the statutory minimum wage, since it was not introduced until the beginning of 2015.

- 820.** The **increase in wage inequality in the period between 1999 and 2005** in the upper half of wage distribution is explained not least by technological progress that made high-skilled employees disproportionately better off than low-skilled employees (Antonczyk et al., 2010). High-skilled individuals also tend to switch to companies that pay above-average wages. These differences may well have exacerbated wage inequality (Card et al., 2013).

The increased labour supply and decreased membership in trade unions are cited regarding the increase in wage inequality in the lower income half. As a result of this decrease, wage negotiations were increasingly shifted from sector to company level and thereby decentralised (Dustmann et al., 2009; Antonczyk et al., 2010). The potential shift of production towards eastern Europe may also have increased wage pressure, in particular for low income groups (Dustmann et al., 2014).

- 821.** The share of the population with no earned income has declined since 2005 as a result of the **increase in employment** following the labour market reforms of Agenda 2010. ↘ ITEMS 736 F. Most of this large group of people has taken on part-time work at relatively low wages (Burda and Seele, 2016). Accordingly, wage inequality among the employed, which had risen steadily until 2006, came to a



standstill, while wage inequality in the total population decreased (Felbermayr et al., 2016; Grabka et al., 2012; Schmid and Stein, 2013).

822. A mere comparison of wage inequality between two points in time also disregards the fact that the **composition of the groups of individuals** within the wage distribution can change over time. Around 25 % of the change in wage inequality can be explained by the change in the age and qualification structure of employees (GCEE Annual Report 2014 item 522). The rising average age, which explains 12 % of the changed wage inequality by itself, is an important factor here.

### III. WEALTH ACCUMULATION AND DISTRIBUTION

823. In Germany, private households typically have **relatively few wealth assets** compared to other countries; the median is € 60,000 in 2010 prices. Private wealth is also distributed unevenly by comparison. Wealth and income positions are closely related. The majority of assets are accumulated from saved income. Inheritance plays a smaller role. There are few opportunities to advance to a higher asset position.

#### 1. Private household wealth

824. Identifying wealth components is significantly more complex and problematic than the components of income. Firstly, many **assets** such as business or property assets are **difficult to assess**. Secondly, the identification of private assets is problematic if the respondents cannot or are not willing to provide any information about them. Therefore, asset totals collected through surveys tend to be undervalued. For example, aggregate gross monetary wealth is systematically underestimated in all wealth surveys (Grabka and Westermeier, 2014). Thirdly, vested pension rights, for example from the pay-as-you-go pension system and company pensions, are typically not included in wealth assets.
825. For the analysis of wealth development, the German Council of Economic Experts has relied on focus surveys by the SOEP in the past, which are now available for the three survey years 2002, 2007 and 2012 (GCEE Annual Report 2014; Grabka and Westermeier, 2014). An additional survey data set was published this year with the second wave of Deutsche Bundesbank's **panel study “Panel on Household Finances” (PHF)**. It covers the balance sheets for private households in much greater detail than the SOEP; however, the sample size is smaller.



The **Panel on Household Finances (PHF)** is a household survey regarding the financial situation of private households in Germany in connection with the Eurosystem's Household Finance and Consumption Survey (HFCS) of the European Central Bank. The survey is conducted by Deutsche Bundesbank. So far two waves are available (2010 and 2014).

Wealth components are covered in considerably greater detail in the PHF with over 30 questions than in the SOEP with eight questions. Individual savings and investment accounts are surveyed as well as wealth components that are not taken into consideration in the SOEP, such as vehicles. In contrast, just like vested pension rights to statutory pensions, occupational pension contracts, silent partnerships and furnished sureties are not counted as assets. The PHF's sample size of 3,565 households with 7,084 persons (wave 1) and 4,461 households with 9,256 persons (wave 2) is only around one-third the sample size of the SOEP. Nevertheless, representative results for the total population of Germany can be calculated with the help of raising factors. In order to ensure representative data, an additional survey of very wealthy households is conducted. The SOEP also allows for this effect with an additional subsample of “High income households”. There are no reliable statistics available in Germany regarding the extent of underestimation of high wealth. The willingness to respond in the PHF survey is high, in particular with respect to the income questions; however, questions regarding private pension benefits and income from financial investments are refused relatively often (Zhu and Eisele, 2013).

- 826.** The more precise identification of wealth components contributes to the fact that the **net wealth of households in the PHF data** is higher than in the SOEP (Grabka and Westermeier, 2014). For example, the median household in the PHF sample owned net wealth of just under € 60,000 in 2014 in 2010 prices, whereas calculations of the SOEP from 2012 result in net wealth of € 46,000 for the median. ↘ **TABLE 32** According to the PHF, whoever has higher net wealth than 90 % of the population has more than € 450,000 at their disposal, while whoever has more net wealth than 99 % of the population has more than € 2 million.
- 827.** The Federal Statistical Office calculates net wealth by sector in the **macroeconomic balance sheet** for the national accounts, with private households reported together with non-profit institutions serving households. In this definition, private households possessed net wealth in the amount of € 9.1 trillion in 2010, and € 9.4 trillion and € 10.0 trillion respectively in 2010 prices in 2012 and 2014, with individual aggregate assets defined separately (Deutsche Bundesbank, 2013, p. 28f). In particular with respect to equity investments held by households, the reported equity is taken into account and not the typically higher market value.

In the first wave of 2010, the net wealth projected onto the population based on the PHF achieved **coverage** of 89 % compared to the macroeconomic balance sheet for private households and non-profit institutions serving households; in the second wave in 2014 it was 86 %. The SOEP achieved coverage of 90 % in the survey conducted in 2002, but only 64 % of the balance sheet in 2012, which is primarily due to a lower capture rate with respect to real estate (Grabka and Westermeier, 2014). These high fluctuations limit the statistical validity of the SOEP.

- 828.** According to the SOEP, as many as one-fifth of households have **no assets or negative net wealth**, i.e. liabilities exceed assets. In the PHF data, this only applies to 9 % of the households. However, the significant component of automobiles is covered in contrast to the SOEP. If one would conduct the analysis on the individual level, the displayed wealth inequality would be presumably high-

TABLE 32

## Trends of household net wealth in Germany

	SOEP <sup>1</sup>			PHF	
	2002	2007	2012	2010	2014
<b>in euro (in prices of 2010)</b>					
Mean	164,677	158,018	147,501	199,171	204,165
Median	42,616	41,768	45,720	53,646	59,625
9 <sup>th</sup> decile	413,317	397,124	372,909	451,364	445,681
99 <sup>th</sup> percentile	1,455,594	1,465,325	1,321,881	1,960,100	2,148,021
<b>SOEP: 2002=100, PHF: 2010=100</b>					
Mean	100	96.0	89.6	100	102.5
Median	100	98.0	107.3	100	111.1
9 <sup>th</sup> decile	100	96.1	90.2	100	98.7
99 <sup>th</sup> percentile	100	100.7	90.8	100	109.6
<b>Distribution measures</b>					
Gini coefficient	0.750	0.755	0.741	0.753	0.758
90/50-ratio	9.7	9.5	8.2	8.4	7.5
1 – Top-coded at 0.1 % to allow an outlier-robust time comparison.					
Source: own calculations based on PHF and SOEP v31					

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er, for in many cases a net debt on the part of individuals can be absorbed by other household members.

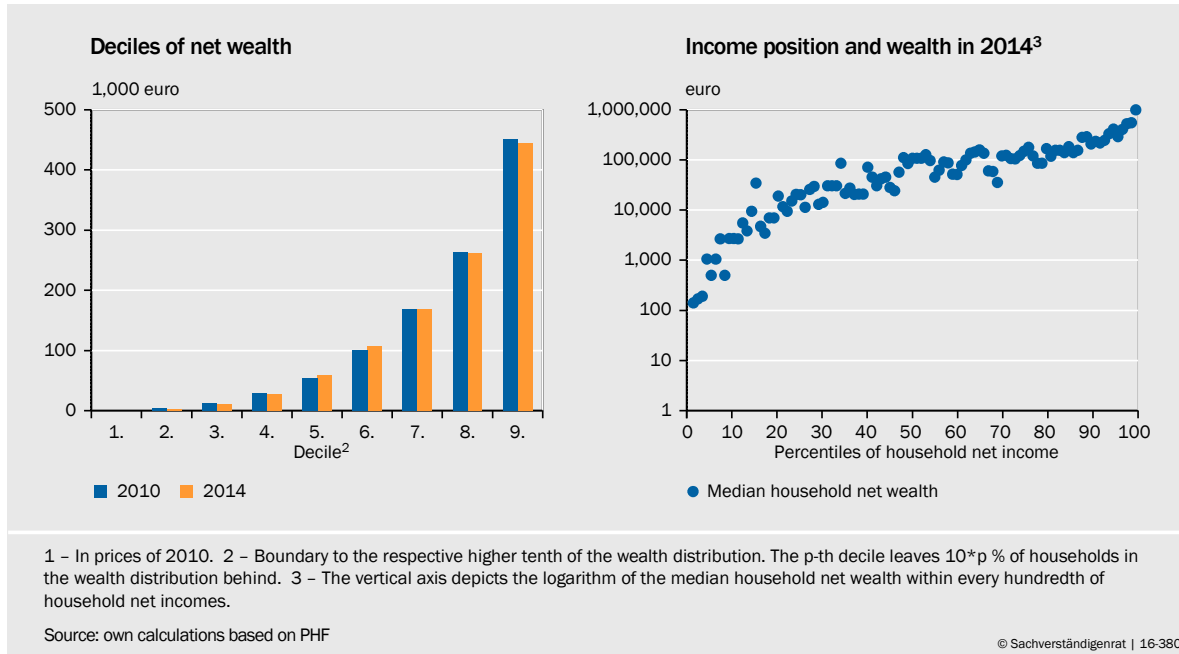
829. The presentation of the overall distribution of net wealth reveals that the majority of wealth is concentrated in relatively few households. Overall, **net wealth is distributed considerably more unevenly** than net income. In 2014, the wealthiest 10 % of households held more than 60 % of total net wealth in Germany. In contrast, the lower half possessed only 3 % of net wealth. The deciles of net wealth represent the more precise development of wealth distribution. [CHART 108 LEFT](#) The lower 20 % of households rarely own net wealth. Real wealth growth was only recorded in the middle of the distribution between 2010 and 2014.
830. Despite all this, there appears to be **high persistence with respect to wealth positions** – as with the distribution of income. Ten equally sized wealth classes are formed for the analysis of mobility in the PHF data. Between 2010 and 2014, 38 % of the households remained in the same wealth class; 78 % moved one class up or down at most. At 37 %, the tendency to advance to a higher wealth class is somewhat higher than the probability of descending (25 %).

**Income and wealth are strongly correlated.** Households at the lower end of income distribution have relatively little wealth at their disposal, while households around the median of income distribution are near the median of wealth distribution. [CHART 108 RIGHT](#) The highest earning 10 % of households possess particularly large wealth and thus 37 % of total assets. The lower-earning half of households possessed around 23 % of overall net wealth in Germany in 2014 (Deutsche Bundesbank, 2016a).

This relationship suggests that higher income, which is in turn closely associated with skills and professional standing, facilitates the accumulation of wealth,

↘ CHART 108

Distribution of private households' net wealth<sup>1</sup>



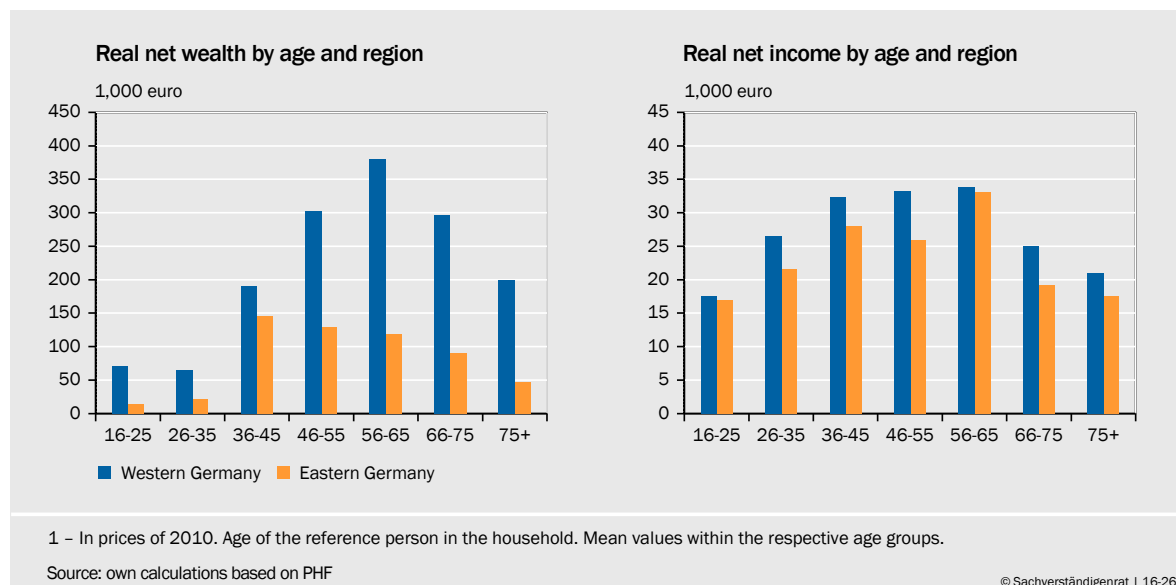
whereby the obligation to pay into the statutory pension system is likely to crowd out the private accumulation of wealth (Attanasio and Rohwedder, 2003; Engelhardt and Kumar, 2011; Hurd et al., 2012). Around two-thirds of the assets are generated through income, while inheritance accounts for around one-third (Bönke et al., 2016). However, income comprises not only earned income, but also capital income generated with previously existing assets.

831. There is a clear difference between net wealth in **eastern and western Germany**. ↘ CHART 109 LEFT The average household net wealth in western Germany was € 236,000 in 2014, and in contrast, only € 85,000 in eastern Germany. The difference can be attributed to a path dependency, since the accumulation of wealth in eastern Germany is essentially based on the post-reunification period. The inequality of net wealth is higher in eastern than in western Germany. However, there are signs of **sustainable catch-up**: Between 2010 and 2014, the average net wealth of households in eastern Germany rose by 23 %, while they almost stagnated in western Germany.

For older persons, net wealth is distributed particularly unevenly between eastern and western Germany. This is largely attributable to the division of Germany, since western German households had better opportunities to accumulate assets for 40 years.

832. The distribution of net wealth and net income by age cohort suggests a **life cycle pattern**. Normally, there is less net wealth available during apprenticeship and in retirement, whereas people use their working lives to increase their wealth until late adulthood. Income and wealth reach a maximum at an age of 56 to 65 and afterwards decrease once again. ↘ CHART 109

## ↘ CHART 109

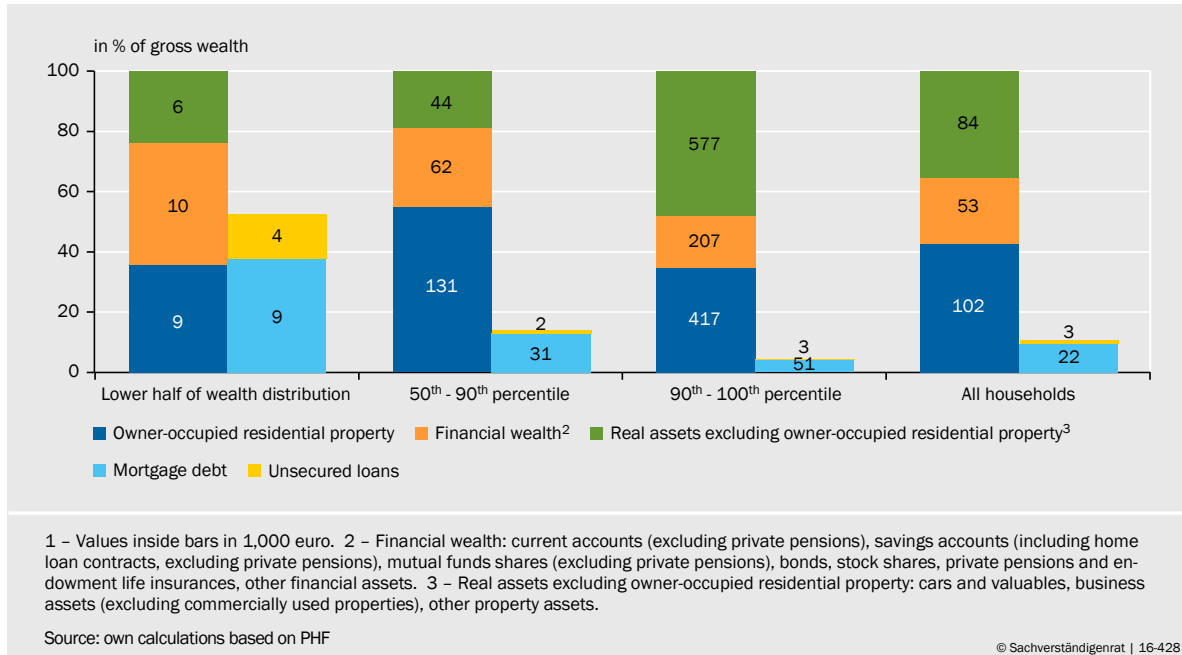
Net wealth and net income of private households in Germany in 2014 by age groups<sup>1</sup>

**Income inequality** has risen across generations in the past few decades. In the 1960s, men born in western Germany were confronted with 85 % more inequality over the course of their lives than their fathers (Bönke et al., 2015).

833. A sensible understanding of distribution figures can be achieved by considering the **portfolio structure of households**. Owner-occupied residential property represents the most important wealth component with a share of 40 % of total gross wealth according to the PHF data. ↘ CHART 110 At just under 40 %, other real estate holdings, tangible assets, business assets and vehicles as well as valuable items likewise represented a substantial portion of gross wealth in 2014. The debt of German private households represents around 10 % of total gross wealth. The most important reason for debt is a mortgage for a primary residence. Qualitatively, there are no significant differences between the data from PHF and SOEP (GCEE Annual Report 2014 table 27).
834. The portfolio structure of various types of households reveals the **heterogeneity of wealth components**. For instance, it stands out that, at 40 %, financial assets – mainly savings and current accounts – constitute a relatively high share of gross wealth for households of the lower half of wealth distribution. For households that lie between the median and below the ninth decile of wealth distribution, property assets play a larger role, with the loan-to-value ratio for mortgage loans being lower than for poorer households. The 10 % wealthiest households are set apart by a high share of business assets and relatively low debt. In absolute terms, their property assets are the highest (Deutsche Bundesbank, 2016a).
835. The persistently **low interest rate environment** may be having an impact on the portfolios of private households. Low interest revenues with respect to private savings is offset by low interest expenses for debt. Deutsche Bundesbank does not anticipate any noteworthy distribution effects as a result of low key lending rates throughout the economic cycle. But the effects are very difficult to

↘ CHART 110

Portfolio structure of the household net wealth by percentile groups in 2014<sup>1</sup>



estimate given the lack of counterfactual situations (Deutsche Bundesbank, 2016b).

836. However, asset price increases can have short-term distribution effects in connection with **unconventional monetary policy measures**, as the study by Adam and Tzamourani (2016) analyses. A hypothetical house price increase has the effect of easing the inequality of net wealth in countries with high rates of home ownership; in Germany, the inequality would only be slightly decreased as a result.

In contrast, an increase in share prices can increase wealth inequality. Rising bond prices have on average had no impact on wealth inequality in Germany and the euro area. Whereas in the current low interest rate environment it may be possible for indebted households to realise interest savings, households with little wealth are often less positively affected by rising asset prices than households that already have high wealth. The funds placed in savings and demand deposits, which are very common in Germany and currently only offer low returns, play a role here.

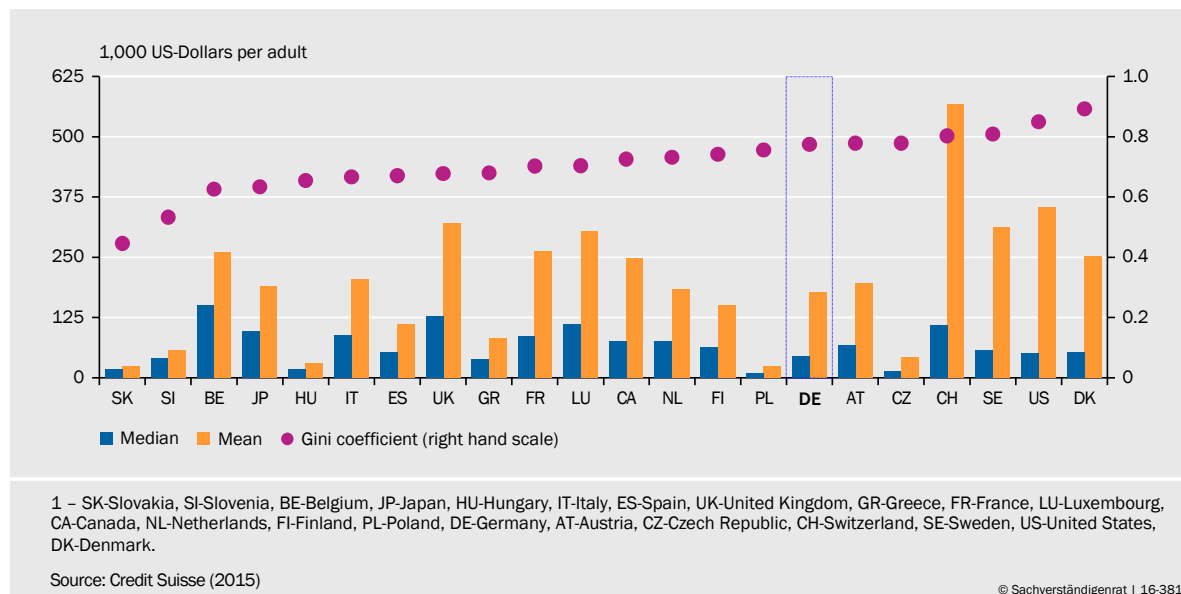
## 2. Wealth in international comparison

837. Households in Germany exhibit low net wealth compared to other countries. This result can be obtained from the pan-European survey of the Household Finance and Consumption Survey (HFCS), which was conducted by the European Central Bank (ECB, 2013). Germany is also one of the countries with a **high degree of wealth inequality**. A study by Credit Suisse (2015) arrived qualitatively at the same results, but in addition shows wealth figures for the Scandinavian countries. ↘ CHART 111



↘ CHART 111

**Wealth distribution in selected countries in 2015<sup>1</sup>**



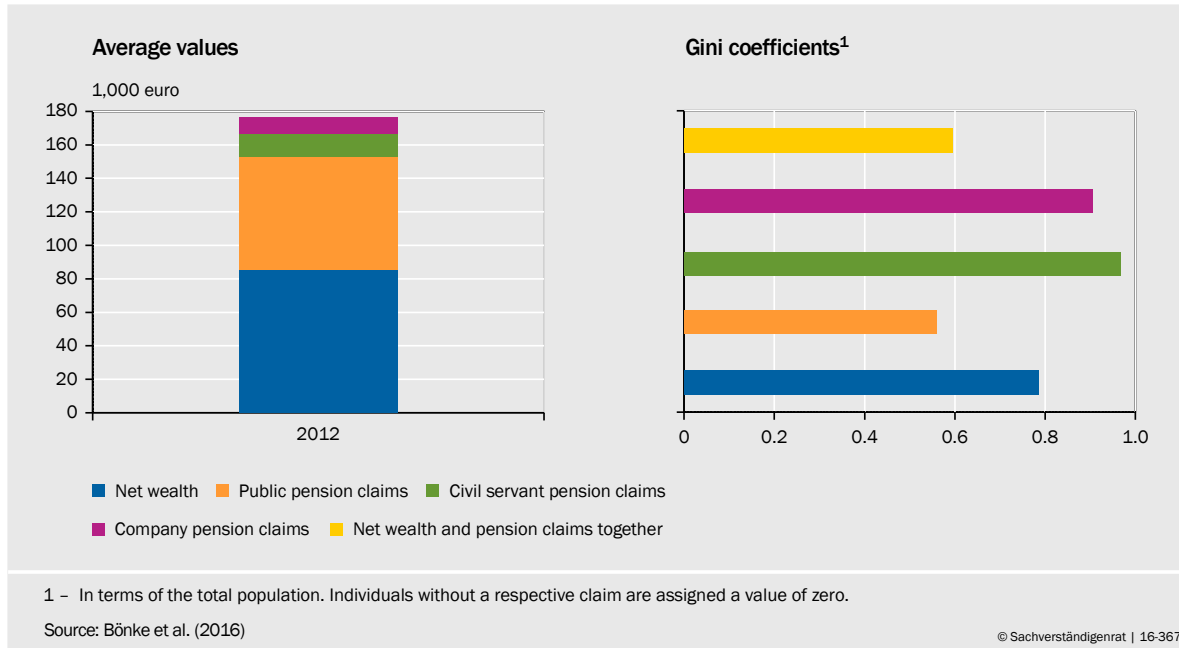
- 838.** The organisation of old age pension schemes makes it more difficult to compare wealth distribution internationally, because the **claims from government pension schemes** are not usually included in the comparison, as is also the case in the HFCS (Tiefensee and Grabka, 2016). Pension claims can be added by switching the analysis to the individual level. As a result, the average net wealth per individual doubles. ↘ CHART 112 LEFT

In particular, it can be seen that wealth inequality **is approximately one-quarter less** when vested pension rights are taken into account (Bönke et al., 2016). The addition of claims under statutory pension schemes has the effect of sharply reducing inequality, while the lower coverage of company pensions and public sector pensions has the effect of increasing the Gini coefficient. ↘ CHART 112 RIGHT Only 6 % of the total population can lay claim to a civil servant pension, which explains the high Gini coefficient in this area.

- 839.** Germany exhibits **lower private** net wealth than most European countries. The following points are presented as an explanation:
- **Home ownership** is low in international terms and **real estate prices** stagnated until a few years ago. ↘ ITEM 398 In contrast, rising real estate prices combined with the leverage effect of mortgage financing have contributed significantly to the net wealth of property owners in many other countries. There are various explanations for the internationally low share of private individuals owning their homes. ↘ BOX 28
  - The investment behaviour of German households is characterised by a relatively high level of **risk aversion and a preference for liquidity** (Annuß and Rupperecht, 2016). This can be seen in a comparison of countries, for example based on a high share of demand deposits and insurance claims. As a result, the real returns of households' financial investments are lower than for riskier forms of investment (Brandmeir and Holzhausen, 2015).

↘ CHART 112

Distribution of net wealth and pension claims at the individual level in 2012



- The comprehensive system of **social security** leads to a lower level of private wealth accumulation, even though the saving ratio of households is high (Börsch-Supan et al., 2001; Kim and Klump, 2010). In addition to the specific organisation of old age pension schemes, the **age structure of the population** of Germany may contribute to the low accumulation of household wealth, since the willingness to accept riskier forms of investment decreases with age (Le Blanc et al., 2014).

↘ BOX 28

**Why are there so few owner-occupied properties in Germany?**

At 52 %, the share of all private households that reside in their own four walls is low in international terms. ↘ CHART 113 LEFT Yet more than three-quarters of all flats are privately owned. ↘ CHART 113 RIGHT The **share of owner-occupied homes** is low, in particular in metropolitan areas and in eastern Germany (Lerbs and Oberst, 2014).

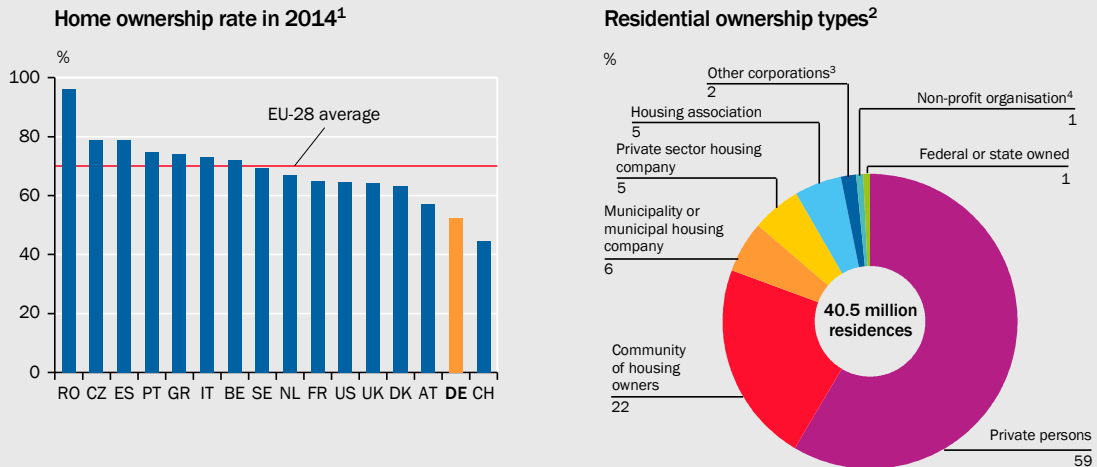
The high proportion of rented housing among private households can be partly attributed to **historical reasons**. More than four million homes were destroyed or damaged during World War II, and the housing stock decreased by 20 %. In addition, approximately 12 million people had to flee or were displaced and lost any residential properties they may have owned. That corresponded to around 20 % of the population of western Germany. In order to alleviate the housing shortage, the extensive promotion of social housing construction was initiated in 1950 with the first German Housing Act (*Wohnungsbaugesetz*) (Voigtländer, 2009).

The cornerstone for Germany's heavily regulated **tenant-friendly rental market** was set with the comprehensive regulation of rents. This resulted in the development of a comparatively large and high-quality sector of social housing in Germany. Although rents were later deregulated in many parts of Germany, the large rental housing market, the regulation – which remains quite tenant-friendly – and the current stock of rents, which in some cases are still low, make long-term renting seem more attractive than purchasing property.

Home ownership continues to be subsidised relatively little in international comparison. For instance, in contrast to many countries, interest on mortgage loans for owner-occupied residential property in Germany cannot be deducted for tax purposes. In addition, the homeowners' subsidy was discontinued and the declining balance method of depreciation for rental housing developments was abolished in 2005. However, there is no clear relationship between **home ownership subsidies** and ownership rates.

↘ CHART 113

Home ownership in selected countries and residential ownership types in Germany



1 – Share of households with owner-occupied property. RO-Romania, CZ-Czech Republic, ES-Spain, PT-Portugal, GR-Greece, IT-Italy, BE-Belgium, SE-Sweden, NL-Netherlands, FR-France, US-United States, UK-United Kingdom, DK-Denmark, AT-Austria, DE-Germany, CH-Switzerland.  
 2 – Share of all residences. Sum of shares is not equal to 100 due to rounding. Excludes diplomats' residences, residences of foreign armed forces and commercially used residences. 3 – From the private sector. 4 – For example the church.

Sources: Census 2011, Eurostat, Federal Statistical Office, U.S. Census Bureau

## IV. THE CHALLENGE OF INCOME AND WEALTH MOBILITY

- 840. After income inequality increased until 2005 given the unfavourable situation on the labour market, it decreased until 2009. It has risen again slightly since then. The tax transfer system brought about a substantial degree of **social equity** over this period by ensuring that the inequality of net income was significantly lower than the inequality of market income.
- 841. The market-oriented **labour market reforms of Agenda 2010** along with the wage restraint on the part of employees proved to be productive means of ensuring growth and employment. They helped more people earn income and likely contributed to preventing the previously rising income inequality from rising any further. This is because unemployment, in particular with respect to young employees, has the effect of worsening earnings prospects over the working life as a whole. Therefore, the **avoidance of unemployment** and the associated loss of human capital is particularly important.

842. From the perspective of the German Council of Economic Experts, there are strong arguments for a greater emphasis on **employment and advancement opportunities** instead of focusing on redistribution in order to ensure participation and prosperity. Trying to counter the concentration of wealth with a higher intensity of redistribution could prove counterproductive, because this would likely weaken the incentives to earn high incomes in the first place by gaining qualifications and showing initiative and commitment. Direct intervention in the wage structure on the labour market, such as the statutory minimum wage or measures that hinder the flexibility of companies, such as the regulation of temporary work and contracts for work and services, threaten to reduce labour demand and consequently employment opportunities.
843. A major challenge for economic, fiscal and social policy lies in **income mobility**. The observed stability of the income classes makes it clear that income and wealth positions are firmly persistent. However, this is not least a reflection of the stable and high proportion of households that can now be counted among the middle class in terms of income distribution. In previous decades, educational advancement and the associated income mobility took place on the basis of an entirely different starting distribution of education in the parental generation. A similarly robust expansion of the education sector as in the decades following WWII will not be repeated.

In light of the educational expansion, it is not surprising that the preference for an equally educated partner has risen in recent decades. In particular, there are roughly as many well-educated women as men in the younger generation (Grave and Schmidt, 2012). Thus, income inequality tends to increase without resulting in the need for political action.

844. Education is a key factor determining a person's employment and earnings prospects. However, the level of education of the parents remains important for the educational success of children across several decades (Heckman, 2006; Hanushek and Woessmann, 2011). **Education policy** should therefore strive to reduce remaining deficits with respect to the **equal opportunities** and to increase transfer possibilities in the education system, i.e. the ability to switch between different education tracks. Greater equality of opportunity could increase the mobility of income in the long term. This could – but may not necessarily – lead to a reduction in income inequality.
845. In order to increase the equality of opportunity, public funds should be focussed more intensely on the **beginning of the education life cycle**, as this promises particularly high social returns to education. In this light, the expansion of childcare services for infants in the past few years is positive and should be further promoted. This would better meet the need for childcare services in particular for children under the age of two and thereby facilitate closer ties between mothers and the labour market (GCEE Annual Report 2013 items 743f.). The use of **continuous childcare until children start school** and access to all-day schools are potentially promising for the further course of education (GCEE Annual Report 2013 item 765).

An expanded offering of childcare services can only achieve the desired results if it is implemented with an emphasis on quality and sufficiently utilised. Relatively few **families with migration backgrounds or a low level of education** have participated in the offering of childcare services for infants thus far, even though this would mean extra support for the children from these families. This problem could be countered with the introduction of an obligatory preschool year at no charge (GCEE Annual Report 2013 item 584; GCEE Annual Report 2009 items 454ff.).

846. In comparison with incomes, **wealth is more unequally distributed**. Private households in Germany also have less wealth at their disposal than in many European countries. However, an international comparison does not take into account the extensive vested pension rights to benefits from public pension systems and company pensions, which are key for the accumulation of wealth and have the effect of mitigating inequality. If people are encouraged to provide for their old age by means of a well-functioning pension scheme organised by the government, this may reduce the **incentive for private wealth accumulation**. Furthermore, less income is available for individuals to accumulate their own wealth due to the comparably high pension contributions.

There are serious arguments against countering wealth inequality by levying a **wealth tax**. It distorts in particular investment decisions on the part of companies (Spengel et al., 2013; Board of Economic Advisors to the BMF, 2013). For this reason, business assets were exempted to a certain extent before the wealth tax was discontinued in 1997. This unequal treatment of assets led to the unconstitutionality of the wealth tax. In addition, the costs of collection of, and compliance with a wealth tax are comparatively high.

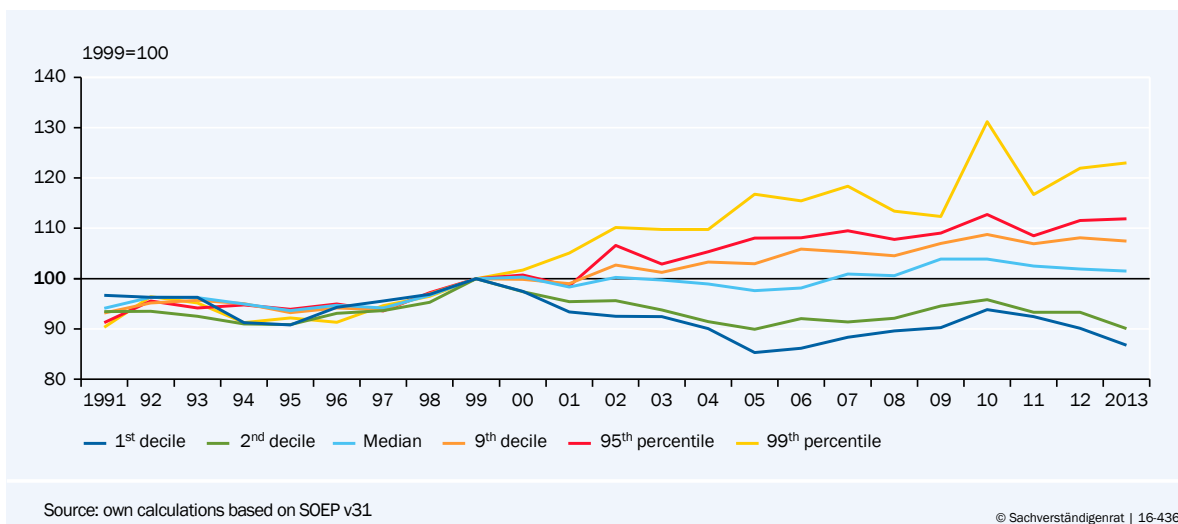
847. In contrast, with respect to inherited assets, the German Council of Economic Experts affirms its evaluation that there are many arguments in favour of a proportional **inheritance tax** on all types of assets (GCEE Annual Report 2015 items 807ff.). The current exemption rules for business and property assets could be eliminated. Appropriate exemptions and generous deferment rules would avoid liquidity problems in connection with a transfer of business assets. This would be a considerably better solution than the recent compromise regarding inheritance tax, which provides too large of an exemption for companies.

## A differing opinion

848. One member of the Council, Peter Bofinger, does not agree with the opinion expressed by the majority of Council members that “**development of income inequality appears to be relatively stable**” in Germany.
849. A **clear gap** has formed since 1999 with regard to the development of net income for individuals in households with at least one member in working age. This stands in **striking contrast** to the period from 1991 to 1999, in which the net income of all income groups – despite the rather divergent development of market income – developed almost identically. ↘ CHART 114 Since 1999, net income in the upper range has increased by around 10 %, while decreasing by 10 % in the low-income range. The fact that this development materialised very visibly in 2005 can be attributed to the very high rate of unemployment at the time – not least for cyclical reasons. It is conspicuous that the income trend has not developed more favourably in the first and second deciles until recently, despite the considerable improvement in the employment situation that has occurred since then.
850. Given the high level of uncertainty regarding the underlying statistics, it seems in any case more prudent to look at the **long-term trends** when assessing the development of income, not individual years, such as 2005, which also convey an exaggerated image of long-term development due to cyclical effects.
851. As a result of this division into periods, it is also clear that there were no compensating effects on market income inequality from the **tax system** after 1999. With respect to households in the upper income range, net income increased considerably more than market income. ↘ CHART 115 This is likely attributable at least in part to the impact of the **Tax Reform 2000**, which took effect in the year 2000 and which resulted in a considerable reduction in the top income tax rate from 53 % in 1999 to 42 % in 2005.

↘ CHART 114

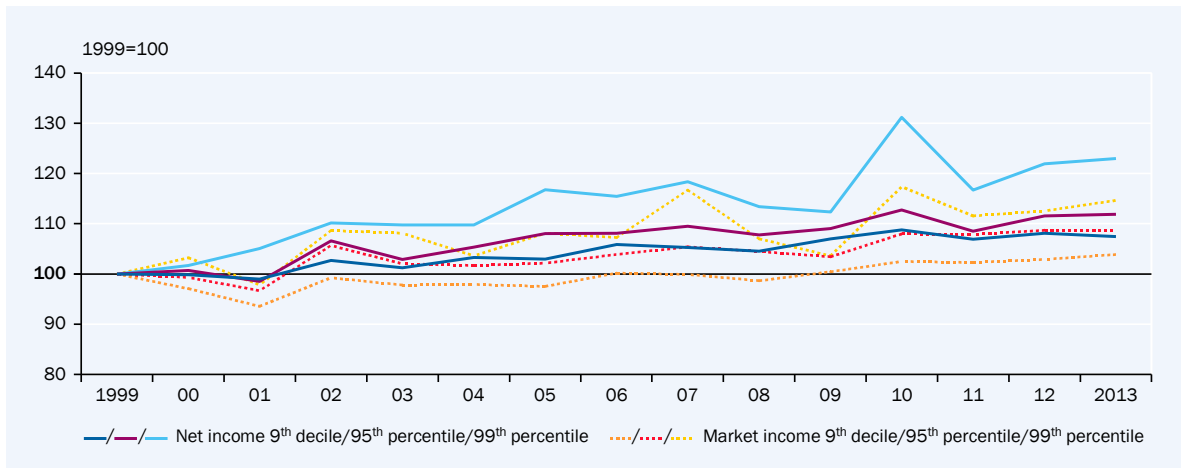
### Net income trends for individuals in households with at least one member in working age





↳ CHART 115

Market income and net income in the upper income range<sup>1</sup>



1 – For individuals in households with at least one member in working age.

Source: own calculations based on SOEP v31.

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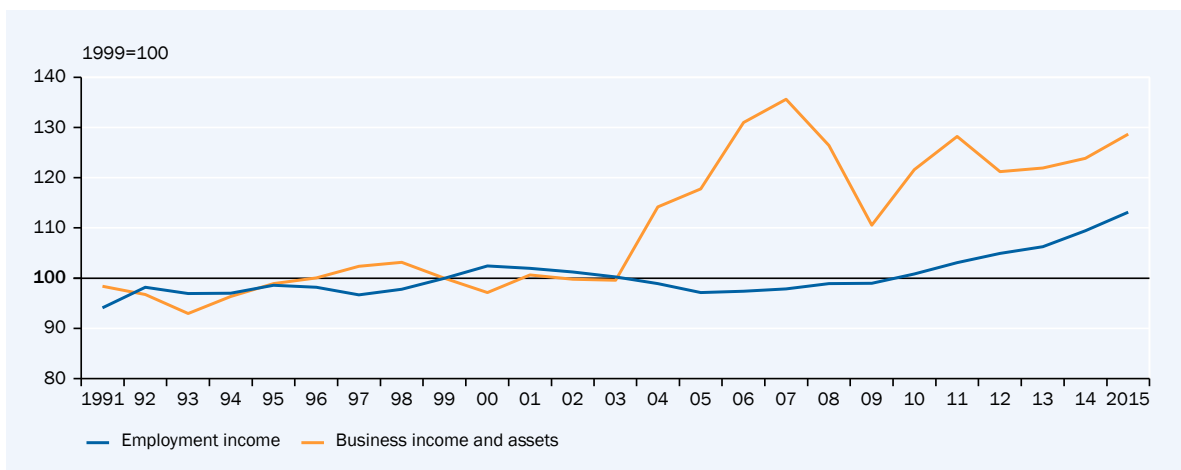
852. **Functional income distribution** also conveys the image of a gap in income distribution which formed in the last decade. ↳ CHART 116 Business income and assets, which developed almost parallel with employment income until 2003, increased by 16 percentage points more thereafter. Once again, it is not a matter of comparing individual years, which are exaggerated as a result of cyclical effects, but rather the long-term trend.

853. The majority find that the **informational value of the wage share** with respect to the prosperity of employees is limited, as employees receive income not only from employment but also from capital. Considering the very uneven distribution of wealth and the high correlation between income and wealth, it seems very unlikely that employees with relatively low earned income have very much capital income at their disposal.

854. Finally, it is striking that **net income in the lower range of the distribution** fell (first and second decile) or remained nearly constant (third decile) over

↳ CHART 116

Trends in functional income distribution<sup>1</sup>



1 – Adjusted for purchasing power using the CPI.

Source: Federal Statistical Office

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the period from 1991 to 2013. Consequently, broad segments of the population no longer benefited from the **economic increase in prosperity**, as reported in the gross domestic product, which rose in this period by 29 % per capita. If a quarter of a century which for Germany was particularly characterised by globalisation does not bring about any improvement in the material situation of many people, it is not surprising when political initiatives for a further expansion of markets meet growing political resistance.

855. In order to put the internationally comparatively high concentration of wealth distribution into perspective, the majority point to the fact that the **different country-specific social security systems** make an international comparison of wealth more difficult. However, for Germany it should be pointed out that according to Eurostat government expenditure for the statutory pension scheme is below average for the euro area as well as for the EU-28 in relation to GDP.

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