Economic Inequality in Germany and the Role of Household Context

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Introduction

Economic inequality has increased considerably in many Western countries over the past decades. The growing gap between rich and poor is now one of the main issues on the policy agendas around the world. The recent period of economic crisis in the aftermath of the 2008 financial market collapse in the United States has rendered issues concerning the distribution of economic resources, in general, and questions of the appropriateness of extremely high earnings, in particular, even more urgent (OECD, 2011, p. 17). Austerity measures in the context of the euro crisis have recently triggered social unrest in countries like Greece and Spain where these measures are perceived to affect the poor disproportionally. The "*Occupy Wallstreet*" movement, which presses policy makers for steps against growing social and economic inequality, has popularized the catchphrase "*We are the 99%*". Interestingly, this slogan directly refers to academic research on the increasing income share of the richest 1% of the US population, which is nowadays

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back to historically high levels.[1] The latter example especially shows that the *distribution* of economic resources across the population is not just a matter for public debate and policy making. On the contrary, the analysis of distribution is long since "*back in from the cold*" (Atkinson, 1997) and has turned from "*watching the grass grow*" (Aaron, 1978) to an active and relevant area of research in (public) economics.

In this paper, I will first give a brief and more general overview of recent contributions to (empirical) research on economic inequality. I will first deal with the question why economists should care about inequality in the first place. This will be followed by a brief discussion of conceptual issues regarding the concept of economic resources and an overview of the development of economic inequality in Germany. I will then focus on some specific contributions dealing with the role of the household context for the distribution of economic resources with a special focus on Germany. The two papers, that are briefly summarized and discussed, are concerned with social changes, which have altered societies in many industrialized countries over the past decades. In many ways, the distribution of economic resources did not remain unaffected by these trends. I will finish by making some concluding remarks.

Economic Research on Inequality – Why should economists care?

The public as well as policy makers are very interested in issues concerning economic inequality. In addition, there is also *scientific* interest in this topic. Salverda, Nolan, and Smeeding (2009) argue that there are mainly three reasons

[1] Figures of this trend over the last century (e.g., Piketty and Saez, 2007, pp. 147 ff.) have become widespread not only in academic journals but also in leading newspapers (New York Times, Oct. 26, 2011: "*It's Official: The Rich Get Richer*", Frankfurter Allgemeine Sonntagszeitung, Oct. 14, 2012: "*Amerika entdeckt den Klassenkampf*").

for being interested in economic inequality. First, the distribution of economic resources and factors that influence this distribution "*were central concerns at the outset of market economics*" (p. 6). In addition, according to Musgrave (1959), income redistribution is one of three functions of government activity alongside the efficient allocation of resources and macroeconomic stabilization. Hence, the distribution of resources is a key component of economic research whereby the focus of the literature has shifted from functional to personal distributions over the last decades (Goldfarb and Leonard, 2005). Second, both citizens and policy makers have strong normative feelings about inequality. Economists should, therefore, be able to provide answers to economic phenomena that are of such vital concern for agents in the political process (Atkinson and Bourguignon, 2000, p. 4). Indeed, scientific interest in income distribution has increased alongside increases in inequality (Jenkins and Micklewright, 2007). Finally, even if inequality itself were not of great interest, there are a number of important implications that come with it. For example, many economists argue that inequality is not a bad thing per se. On the contrary, inequalities in relative factor prices are fundamental to the functioning of market economies. With a special focus on labor markets, Welch (1999) emphasizes that inequalities in wages are "good" since they signal scarcities, provide incentives for investments in human capital and compensate for different job attributes. However, Welch himself states that inequality becomes "destructive" when society does not view effort as worthwhile and upward mobility is perceived unlikely or even impossible. In general, public opinion in market economies shares economists' view that absolute equality in economic outcomes is not desirable and that inequalities are, to a certain degree, not only inevitable but even necessary (Salverda, Nolan, and Smeeding, 2009, p. 7). However, if income differences are viewed as insurmountable, social cohesion as well as acceptance of market economy and even democracy are challenged

(Stiglitz, 2012).

So, is inequality ”good” or ”bad” at the end of the day? Atkinson (1997) argues that the normative assessment of *equity* is rather concerned with *mobility* over the lifecycle or across generations and not with cross-sectional income differences. However, there is evidence that economies with greater levels of inequality also show lower levels of mobility (Björklund and Jäntti, 1997; OECD, 2008) which can hamper equality of opportunity (Roemer, 1998) and, hence, justice. In addition, a recent strand in the literature shows that relative income positions matter for subjective well-being of individuals (Luttmer, 2005; Senik, 2005; Clark, Frijters, and Shields, 2008). Moreover, Bartels (2008) and Gilens (2012) show for the US that increasing levels of economic polarization can lead to *political* polarization. Governments seem to become more responsive to preferences of the affluent population while preferences of low and middle income earners – the majority of the electorate – are less or even not at all represented when a small fraction of the population commands a large share of economic resources (Atkinson and Piketty, 2007).[2]

To sum up, in light of these direct and indirect effects of economic inequality on various dimensions, there are good reasons why economists should carry out sound analyses of the distribution of resources across households and individuals. This should serve as a basis for explaining causes and consequences to policy makers and the wider public. Given that there is no consensus on an ”optimal level of inequality”, it is very difficult for decision makers to judge whether a society experiences levels of inequality that actually harm public welfare or not. An objective basis for decision making should, therefore, consider the specific causes and implications of inequality, since it is usually the result of a complex

[2]Murray (2012) cites the former US Supreme Court Justice Louis D. Brandeis (1856–1941): ”*We can have democracy in this country, or we can have great wealth concentrated in the hands of a few, but we cannot have both*” (p. 1).

interaction of various contributions and determinants that are discussed in the following. Speaking with Jenkins (1995), one should know "*whodunnit*" (p. 29).

Inequality of what among whom?

When dealing with economic inequality as a research subject the question "*inequality of what among whom*" arises (Goldfarb and Leonard, 2005). The answer to the part "*among whom*" is straightforward for economists. The term *economics* dates back to the ancient Greek word *oikos* which means *household*. Hence, the essence of the economics discipline is the study of the smallest unit of individuals within an economy jointly carrying out production and consumption activities. The question of "*what*" is related to the underlying concept of economic resources and is much more complex. Analyses of inequality are typically concerned with the distribution of wages, earnings or income. However, there are "*several steps between relative factor prices and [...] disposable income among households*" (Atkinson, 2003, p. 23). The most important steps in this process are the creation of *gross market income* from various sources and all household members, the design of the government's *tax and transfer system* as well as patterns of *household formation and composition*.

Firstly, gross labor earnings make up the largest share of total household incomes and are an important driver of income inequality (Atkinson, 2008). A vast literature in labor economics deals with rising wage and earnings dispersion. Common explanations are changes in the supply and demand for skills and tasks as well as changing labor market institutions and policies. In addition, differences in wages and earnings are affected by pay differentials across gender, race, occupations or sectors. Other market incomes, from self-employment and private pensions as well as from capital and property, have also gained importance as sources of both income and inequality (Frick and Grabka, 2003, 2010; OECD, 2011). A recent strand in the literature deals with the contribution of top incomes to overall inequality and shows that large shares of total pre-tax income are increasingly concentrated among the rich (Piketty and Saez, 2003; Atkinson and Piketty, 2007; Atkinson, Piketty, and Saez, 2011).

Secondly, another important determinant of household income is the tax and transfer system. Governments redistribute market incomes via income and payroll taxes as well as cash and in-kind benefits. The level of redistribution, i.e., the difference between inequality of market and disposable income, is determined by the institutional setting of the economy as well as voters' and policy makers' perceptions and preferences for redistribution from rich to poor (see McCarty and Pontusson, 2009, for an overview of the political economy of redistribution).

Finally, total disposable household income depends on the household context, i.e., the number, composition and characteristics of individuals actually forming households. For given wages and labor market conditions, gross earnings depend on the number of hours worked, while taxes paid and cash benefits received are determined by the characteristics of and the family relationships within households. Hence, the household context, which has changed tremendously over the past decades, determines the distribution of resources both within and across households in the economy. The observed distribution of disposable income is not simply a matter of mechanically applying the tax and transfer schedule to gross incomes for a given household composition, but the result of complex interactions between the market production of gross income (joint decisions on labor supply and savings) and the formation of households (marriage, cohabitation and fertility decisions, ageing and retirement), which might, in turn, be affected by incentives from the tax and transfer system.

The case of Germany

Germany has long been a country with comparatively low levels of income inequality among the OECD world. Although still exhibiting average levels of inequality, the growth in the income gap has been considerably fast since the turn of the millennium (OECD, 2008, 2011). Therefore, empirical results in the academic literature relating to inequality in Germany differ substantially, depending on the specific period under consideration. After World War II, the distribution of income was quite stable until the 1980s, inequality started growing slowly in the 1990s and growth accelerated around 2000 (Dell, 2005, 2007; Atkinson, 2007). Drivers of this trend have mainly been gross incomes, especially at the top of the distribution (Bach, Corneo, and Steiner, 2009; Fuchs-Schündeln, Krüger, and Sommer, 2010).

Special attention has been paid to the development of wage inequality and the effects of globalization, technological change and changes in wage bargaining on the labor market (Dustmann, Ludsteck, and Schönberg, 2009; Antonczyk, Fitzenberger, and Sommerfeld, 2010). In addition and in line with similar experiences in other countries, capital and property have become more important income sources, which are very unequally distributed and increasingly contribute to overall inequality (Frick and Grabka, 2003; Frässdorf, Schwarze, and Grabka, 2011). This is also reflected in the growth of wealth inequality in Germany (Hauser, 2003; Frick, Grabka, and Hauser, 2010). The reunification of East and West Germany in 1990 and the transition process of the former East afterwards has also rendered the overall distribution more unequal (Schwarze, 1996; Grabka, Schwarze, and Wagner, 1999; Biewen, 2005; Fuchs-Schündeln, Krüger, and Sommer, 2010).

Moreover, household composition has changed considerably. For example, German household size is now the second lowest among OECD countries (OECD, 2008), which has important implications for the distribution of income. While market income inequality is relatively high in Germany, inequality in disposable income after taxes and transfers is average in international comparisons (OECD, 2008, 2011). This is mainly due to the progressive system of income taxation. Although there is some evidence that a series of reforms after 2000 have reduced the redistributive effect of the income tax, it is still characterized by a high level of progression (Corneo, 2005; Bach, Corneo, and Steiner, 2011).

In a series of reports on *poverty and richness* in Germany (Bundesregierung, 2001–2012) the German federal government regularly monitors the development of inequality across various dimensions and gives an overview of the population's attitude to distributional issues. Moreover, the government states its general assessment of the current level and future development of inequality and how it intends to address this. According to these reports, policy makers and the public in Germany are, generally, very concerned with inequality and preferences for redistribution are quite high (Alesina and Angeletos, 2005).

Hence, Germany is an interesting case for the study of inequality, since every component determining the overall distribution of economic resources described above plays an important role in this country: Market income inequality has increased substantially over the past decades, the tax and transfer system is strongly redistributive and reduces market inequality. Moreover, the population structure has distinctly changed and inequality is an important issue on the policy agenda.

The Role of Household Context – Marital sorting and labor supply

Studies on pay differentials are mainly concerned with the adequacy of and inequalities in individual earnings. However, earned income is not only determined by a worker's productivity (the wage rate) but also by the number of hours worked, which results from labor supply coordination within households. Therefore, Pestel (2013a) extends the analysis beyond the distribution of pay across individuals to the investigation of joint couple earnings. Increases in the correlation of spouses' earnings in couple households has been interpreted as an increasing similarity of spouses in terms of earnings-related characteristics (assortative mating), which has an amplifying effect on inequality since it reduces the level of redistribution within households. Previous studies on this issue can largely be classified as accounting approaches since observed earnings distributions are compared to counterfactuals by manipulating the correlation between male and female earnings. However, the role of labor supply behavior has so far not been taken into account.

Pestel (2013a) measures the effect of non-random sorting of spouses on inequality across couple households in West Germany from 1986 to 2010 by matching couples randomly to each other and predicting counterfactual labor supply choices. This allows me to quantify the pure effect of sorting in *earnings potential* rather than observed earnings. Using German microdata as well as a behavioral microsimulation model, I find that the impact of observed sorting on earnings inequality among couples turned from slightly equalizing to slightly disequalizing in recent years, but is generally rather neutral. However, after adjusting for the effect of labor supply choices, I find that sorting in productivity has a much stronger impact on earnings inequality. This is mainly due to positive correlation in earnings potential and increases in female employment that are more concentrated in the upper part of the distribution.

From a policy maker's perspective, this result implies a trade-off between policy measures promoting female labor force participation and redistributive policies. Achieving the objective of higher female employment apparently comes at the price of higher inequality. The policy implications are ambiguous. One could argue that government intervention is not justified here, since this specific reason for increasing inequality is the result of couples' choices. However, the growing share of dual earner couples implies a declining importance of intra family redistribution, which could potentially be substituted by government redistribution. Policy advice on how to deal with this equity-efficiency trade-off can only be based on a theoretical framework of optimal taxation of couples. This should explicitly consider the role of market and non-market production of household goods and services affecting the distribution both within and across couple households as well as the selection into cohabitation and marriage.

Household Size and the Welfare State

Increasing correlation of spouses' earnings is only one aspect of changing living arrangements and household contexts in many Western countries. More generally, structural shifts in household composition are linked to rising inequality, since the number and characteristics of individuals living together affect the distribution of economic resources due to income sharing within households.

Peichl, Pestel, and Schneider (2012), therefore, address the effect of changing household compositions on inequality in pre and post government income (after subtracting income and payroll taxes and adding benefit payments to market incomes) and, hence, pay special attention to the role of the tax and transfer system in Germany. Moreover, while many contributions in the literature deal with the important role of gross income inequality, economic well-being depends on resources that are available for current and future consumption, i.e., disposable income. We quantify the effect of changes in household composition that are accompanied by changes in employment patterns on the income distribution. The case of Germany is of special interest in this respect since the demographic development is not only characterized by an ageing population, but also by a sharp fall in average household size. This means that economies of scales in household consumption are more and more lost.

Using German microdata, we find that the growth of the income gap between 1991 and 2007 is indeed strongly related to changes in household composition. The result for income inequality before taxes and transfers is much larger than the result for inequality in disposable incomes. This means, that the welfare state has largely compensated for inequality induced by changes in household structure.

Concluding Remarks

Growing economic inequality has recently received increasing attention. The gap between rich and poor is potentially harmful for public welfare when it exceeds a certain threshold. That is why many policy makers are concerned with increasing levels of inequality. Economists should, therefore, provide an objective basis for decision making with regard to redistributive policies. Conducting analysis of economic inequality requires a decision on the exact research subject. This is concerned with the underlying concept of economic resources as well as the extent to which the household context is involved.

In this overview, I address building blocks in the literature on economic inequality that are not fully integrated. Therefore, it is an enormous challenge to formulate "*models of the household income distribution, incorporating not only models of labour market earnings [...] and the demographic factors affecting who lives with whom*" (Jenkins and Micklewright, 2007, p. 19). Making progress on the development of such a theoretical framework of the distribution of economic resources, comprising models of earnings and income from all sources as well as models of household formation processes is left for future research. As long as such a framework does not exist, one should instead combine single pieces of the puzzle to get closer to the overall picture of economic inequality.

One important part of the puzzle, which deserves further study, is the interplay between social and demographic changes on the one hand and the distribution of economic resources on the other hand. Secular trends of changing living arrangements are related to serious demographic transitions many Western societies will face in coming years. These changes will fundamentally reshape the workforce and society more generally. This is particularly true for Germany. Economic inequality will not remain unaffected by these foreseeable changes, but our knowledge of this nexus is still limited and we do not exactly know which role policies (should) play. Hence, future research should further address this issue.

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