

Inequality and the super-rich*

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January 2017

Over the recent decades there has been a dramatic rise in top income shares in most Western countries. Several explanations have been proposed to explain this phenomenon, some pointing at the role of market-driven forces such as technology and globalization, while others emphasize the importance of political and economic institutions of taxation or changing social norms about income differences in society. This lecture presents the latest academic research about the evolution of top income and wealth positions around the Western world, what we know about the central determinants and how economic policy contributes to shaping these outcomes.

Keywords: inequality, super rich, income distribution, wealth distribution

JEL Classifications: D31, H24, N20

Introduction

There are currently a lot of researchers working on questions of economic inequality. In part, this interest is related to the recent increases in observed inequality in many Western countries, and not least the growth of incomes and fortunes of the very richest groups in society. Indeed, the trends in affluence among the rich were an important motivation for me to start pursuing research on economic inequality. However, when one starts looking closer at a certain phenomenon, one soon realizes that there is a devil hidden in many of the details that requires strictness in the methodological approach to measuring and analyzing the relevant outcomes. My presentation will convey the results and lessons from this large research field that I

*Lecture held in February 2016 as part of the lecture series “Inequality and . . .?” jointly organized by the University of Luxembourg, the European Investment Bank Institute, the Chambre des Salariés of Luxembourg, the Economists Club of Luxembourg, the European Commission, the LIS, LISER and STATEC and others with the financial support of a grant from the Luxembourg Fonds National de la Recherche. We thank Maximilian Wenzel for technical support.

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regard as being some of the most important. The point of departure will be some central questions.

Why should we care about the rich? If we go back in time only ten or fifteen years, when I started working on top incomes in Sweden, I got this question several times. Scholars who worked on inequality often argued that the focus should be on the poor and the socially exposed. The rich, they argued, were uninteresting for social policy and also were very few and therefore did not matter. Both then and now, I take stock with criticism of this kind. Firstly, the rich command a substantial part of the resources our society has, in particular as regards to income and wealth. Secondly, the rich, or the top of the distribution, represent the largest share of taxpayers in the society; thus, they are crucial to financing the welfare state. Hence, it is important to know how this group responds to economic or institutional changes, for example, due to tax reforms. Thirdly, analyzing the rich elaborately will improve the analysis of long-run trends because the rich have historically been interesting for the government in terms of taxation. They have, therefore, been tracked in detail by official statistics, whereas the poor had typically not paid taxes until the post-war era and, therefore, they do not occur in these statistics on a large scale. That is the reason why the rich matter as a scientific medium of inequality over longer time periods.

What do we know about the super-rich? In this presentation, I will provide some results from recent academic research on this question, in which I am partly engaged. I will also give some hints to the limits of our research and where it needs to be amplified.

What are the causes of inequality and the relative position of the rich? How do market driven processes influence these patterns, especially such as globalization or technological change? There is a large literature on technological developments promoting the efficiency of certain groups within the society, for example, well-educated people. Furthermore, there are potential factors relating to political and economic institutions, changes of the tax system and their distributional consequences.

In addition, one could ask about the implications for policy that emanate from the answers given to the above questions. Such policy discussion is doubtlessly quite important, but I leave it to others to make the difficult task of drawing hard conclusions and transforming the research findings presented here into actual policies.

Lessons from the research on top incomes

The modern research literature on the structure and evolution of top income shares in the Western world started with the seminal study on France by Thomas Piketty (Piketty, 2001), which was followed by numerous studies of other countries (see,

e.g., Atkinson and Piketty 2007, 2010). Several findings have come out of this literature.

There is no single type of rich people

One of the most striking results produced by the top income literature is the rejection of the view that there is one single type of high-income earners. Data over households and individuals in the top decile group of the distribution show that they are highly heterogeneous in a number of respects, especially in terms of the level of income and in terms of the kind of incomes they earn.

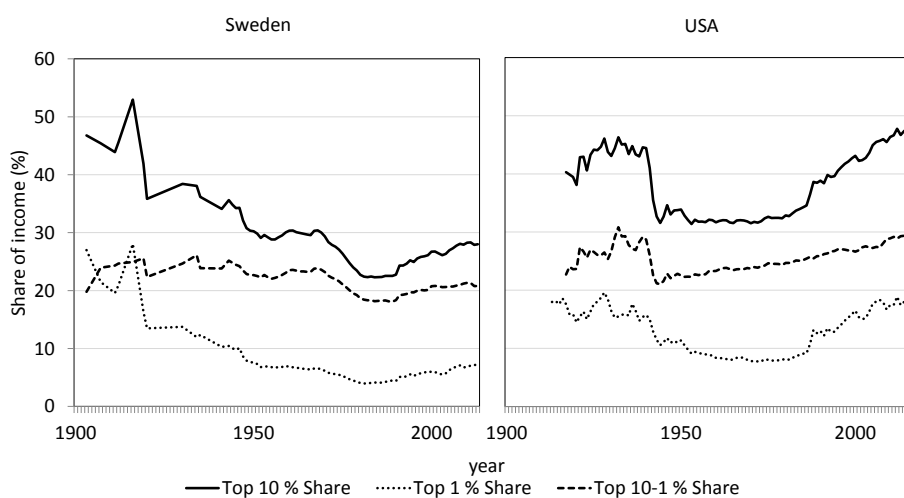
The finding that the rich in society are actually a quite diverse group of income-earners was a controversial one when it came out some 10 or 15 years ago. At that time, and still today in some milieus, inequality researchers were generally disinterested in the top of the distribution. To them, people with an income at the 90th percentile in the distribution offered a sufficient representation of the status of the rich. Researchers used this income level to construct measures of the dispersion between the top and the bottom groups in society, e.g., in the commonly used P90/P50 ratio that related the 90th percentile income with the medium income. However, the top income literature showed that this is a misrepresentation of the rich since more detailed data on top incomes revealed that the 90th, the 95th or the 99th percentile incomes differed greatly. In fact, it was shown that there are great differences even *within the top percentile*.

Let me give two examples on the differences within the income top, one showing how income trends differ across top groups and the other on how the sources of incomes vary among them.

Figure 1 offers one representation of the first example by summarizing the long-run top income decile share trends over the twentieth century in Sweden and the United States. Recall that these top income shares are comparable as being constructed in the same way for both countries and all years, as the ratio of the taxable gross income earned by top-income earners to total income of the whole population. As Figure 1 reveals, this not a stable share in both countries: at the beginning of the 20th century, the top decile earned about half of all income, but after crises, wars, and institutional changes this share dropped to between one quarter and one third in the 1980s and thereafter it has increased.

The diversity across groups appears when splitting up the top decile into two different parts: The bottom nine percent and the top one percent of the top decile of the income distribution. We can see that the share of the bottom nine percent is almost flat over the past century, in contrast to the u-shaped pattern apparent in the overall top decile. Looking at the top one percent, however, we see the same u-shaped pattern. The incomes in this group are actually so large that they shape the entire share of the top decile. Studies show that they are large enough to shape the

Figure 1
Differences within the top decile in Sweden and the U.S.



Sources: Data for Sweden from Roine and Waldenström (2008) and for the U.S. from Piketty and Saez (2003)

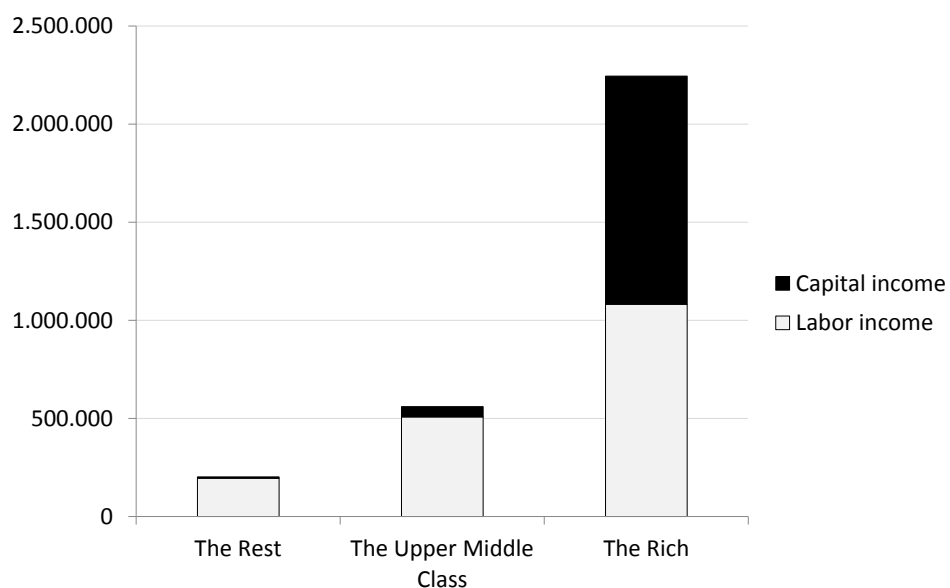
entire Gini-coefficient. In other words, these income patterns demonstrate that the individual at the bottom of the top decile is hardly a representative income earner of everybody in that decile, *i.e.* “the rich”. This is one of the main results of the recent years of research on the super-rich in terms of income inequality, namely, that they are not a homogeneous group.

The second example of heterogeneity within the income top refers to the composition of their incomes. One of the most highlighted result in the study of U.S. top incomes by Piketty and Saez (2003) concerned a shift from capital incomes to wage incomes driving the top incomes. Up until the 1940s, capital incomes (rents, dividends) were the dominant source of the rich, but since the 1980s salaries have become the largest income source. As Pikety and Saez (2003, p.2) famously put it: “the working rich have now replaced the coupon-clipping rentiers.”

Figure 2 provides the composition of income for the top percentile, “The Rich”, the lower nine percentiles of the top decile, “The Upper Middle Class”, and the bottom nine deciles, “The Rest”, in the income distribution. It shows that half of the incomes for the top percentile comes from capital and half from labor income. For the rest of the top decile, the capital income comprises roughly 10 percent of the total income whereas it for the rest of the population is nearly unimportant and incomes are entirely in the form of earnings. Note that capital income includes realized capital gains, which Roine and Waldenström (2012) show represent an important income source for the top in several Western countries.

It is important to stress that these shares of capital and labor income differ across countries as well as regulatory environments. This may indicate a link between institutional frameworks and distribution patterns.

Figure 2
Differences across groups (Sweden 2008)



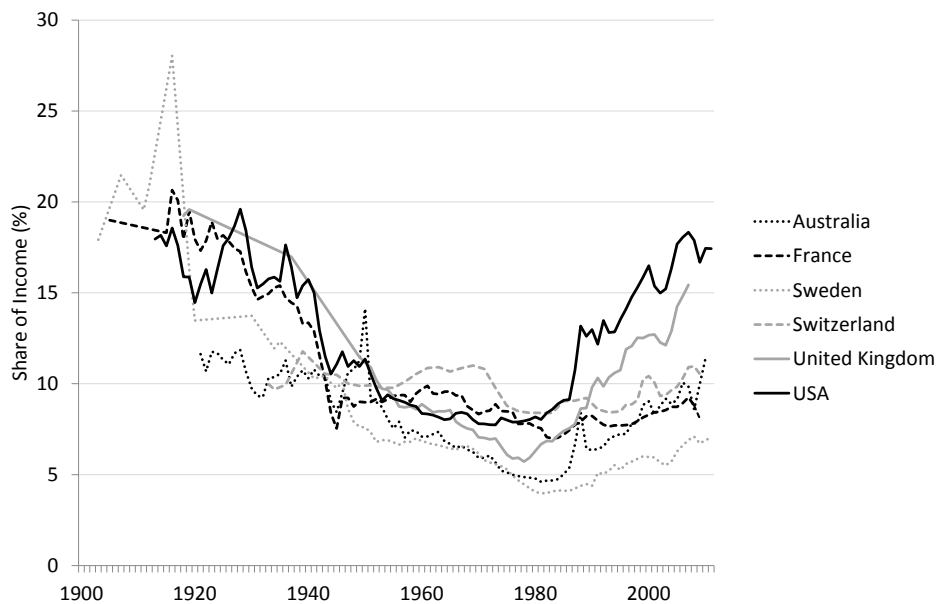
Source: Roine and Waldenström (2008)

Notes: Shares of wage and capital income for the top percentile (The Rich), the lower nine percentiles of the top decile (The Upper Middle Class) and the bottom nine deciles in the income distribution (The Rest).

Historical trends in the evolution of top income shares

Thanks to the joint efforts of several researchers around the world, we now have long-run top income data for two dozen countries. Figure 3 presents the income share of the top percentile in six industrialized economies over the past century. The main result here is that the secular decline observed in the U.S. and Sweden up to the 1980s can be seen in almost any industrialized economy. However, the period since the 1980s is much less homogenous, with some countries experiencing large rises in top income shares while others see almost no increases at all. These differences have been widely discussed, I will return to them in the final section of the presentation when potential determinants of these inequality trends are described.

Figure 3
International evidence on top 1 Percent share



Source: Roine and Waldenström (2015).

New research on wealth concentration

So far this presentation has centered around the rich being at the top of the income distribution. However, when looking at the public discourse, and the actual research questions at hand, many references to the super-rich are concerned with these groups expressed in terms of wealth and top fortunes rather than income. I will discuss some of the recent empirical evidence on income and wealth inequality, and address political methodological aspects that one needs to take into account.

Questions about the wealth distribution have not been covered as extensively as the income distribution by past research. One explanation is the widespread lack of reliable microdata on wealth. For many countries we do not have wealth data and that makes it difficult or impossible to study the wealth distribution. The data that people have worked with have been based on administrative sources, mostly wealth or estate tax data, and survey-based datasets.

Another reason for the lack of wealth studies is that inequality scholars have deemed wealth to be much less interesting than income for understanding the distribution of welfare in society. While income offers a natural starting point for many distributional analyses, wealth is an important complement and sometimes key for understanding certain phenomena: It offers an insurance buffer against negative

income shocks; it enables people to start new enterprises when they are unable to borrow; it gives power at both the personal and, even, political levels; and it also obviously matters for income inequality through the role of capital income.

Inherited wealth has specific significance for taxation analyses. Many classical results in optimal capital taxation suggest that capital should not be taxed significantly because it is basically linked to savings, which means it is linked to working individuals whose consumption is lower than their income level. However, if a large share of the wealth endowment is inherited, this suggestion is not thoroughly true. Therefore, we need to know about not only the size of wealth, but also about its origins.

Income and wealth inequality trends may not be exactly the same

When it comes to the trends of inequality, many people seem to agree that income inequality has increased over the last three or four decades in most Western countries. When it comes to wealth inequality, however, the picture seems to be less uniform. Figure 4 shows the share of the top percentile in the wealth distribution for ten Western countries. An immediate characteristic of these series is the difference between the level of top income and top wealth shares. The richest percentile a hundred years ago owned approximately half of all private wealth in society; in the U.K. they may have owned as much as 70 percent, which gives us an indication of the order of magnitude of this wealth. The share of the top income percentile around the same period was at most half, and mainly a smaller share, of this level.

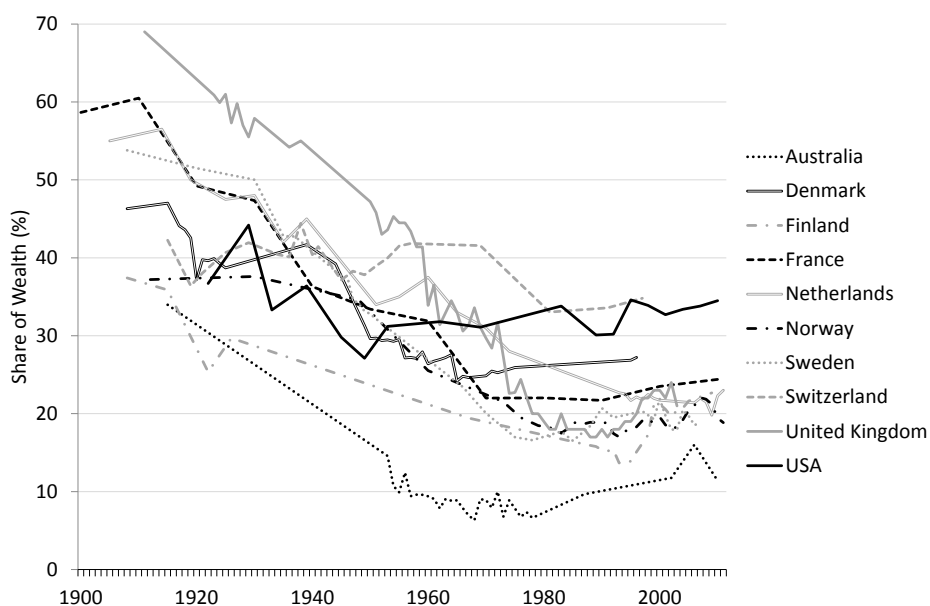
We note that the distribution of wealth became more equal during the past century just as it did for income. However, after 1980, the top wealth shares exhibit much less of an increase than what is seen for the top income shares. In Sweden, for example, the top 1 percent income share more than doubled from the early 1980s to the early 2010s whereas the top 1 percent wealth share remained almost the same.*

The U.S. trend in top wealth shares has been discussed intensively in the recent years. Our figure is based on data from the Survey of Consumer Finances, and it shows a generally flat trend over the past three decades. Had we instead used data from estate tax returns, as in the study of Kopczuk and Saez (2004), we would have had a similar flat trend in the top percentile share since the 1980s. However, in the recent study of Saez and Zucman (2016), wealth data estimated from capitalized income tax data display sharp increases in the top wealth shares. Why this discrepancy has occurred, and which series to use, is an ongoing discussion in the wealth literature (see, e.g., Kopczuk, 2015). It is clear that the capitalization method offers many advantages by being directly linked to individual or household income records, including the study of the income and wealth distributions jointly. How-

*Estimates of Swedish wealth shares up to 2006 in Roine and Waldenström (2009) and up to 2012 in Lundberg and Waldenström (2017).

ever, as already pointed out by Atkinson and Harrison (1978) in their seminal book on the British wealth distribution and more recently by Lundberg and Waldenström (2016) by using Swedish register data on both income and wealth, the capitalization method is sensitive to the quality of data and may deviate substantially from the true levels and trends when data problems are big.

Figure 4
Trends in wealth inequality



Source: Roine and Waldenström (2015).

Wealth measurement problems and missing assets

Before presenting the evidence on wealth inequality trends, let me first mention some of the specific measurement challenges associated with wealth and its distribution. Valuation is a general problem. We typically want to measure assets at their current market values, but it is sometimes difficult to obtain updated and accurate prices of houses, land or financial assets, especially in the absence of continuous and thick markets. Small samples in wealth surveys can cause problems if the absolute top is not sufficiently over-sampled; including a super-rich individual may then lead to top shares being overestimated whereas excluding the super-rich may make top shares underestimated. This is one aspect that has been discussed in relation to the new Household Finance and Consumption Survey (HFCS) co-ordinated by the

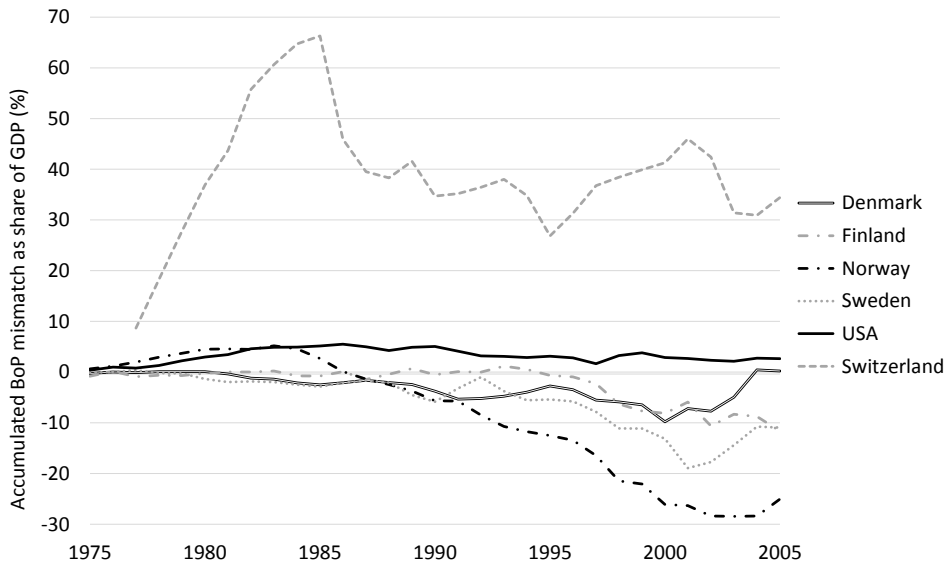
European Central Bank (2013).

Some asset classes are also difficult to handle from a conceptual viewpoint. One example is pension assets. Those that belong to funded, defined contribution systems are in principal straightforward to measure and they should also be included in the wealth concept. However, unfunded pensions, in defined benefit systems, are not part of the official wealth definition and not included despite the fact that some studies show that they tend to crowd out household savings and therefore could make households seem poorer than they actually are.

Offshore wealth that is held illegally in other jurisdictions represents a particularly problematic asset category. It has gained increased attention in recent years as many suspect that it has increased in magnitude due to lowered costs of cross-border transfers after the widespread capital liberalizations and technological developments of the 1990s and 2000s.

A small number of studies attempt to estimate the scale of illicitly held offshore assets. Zucman (2013) showed that perhaps as much as eight percent of the world's financial wealth is placed illicitly in tax havens. His method is based on comparing for all countries their reported assets with their reported liabilities and also the supplement with more detailed evidence from Switzerland's records on foreigners' holdings. An estimation of the role of offshore wealth for the wealth

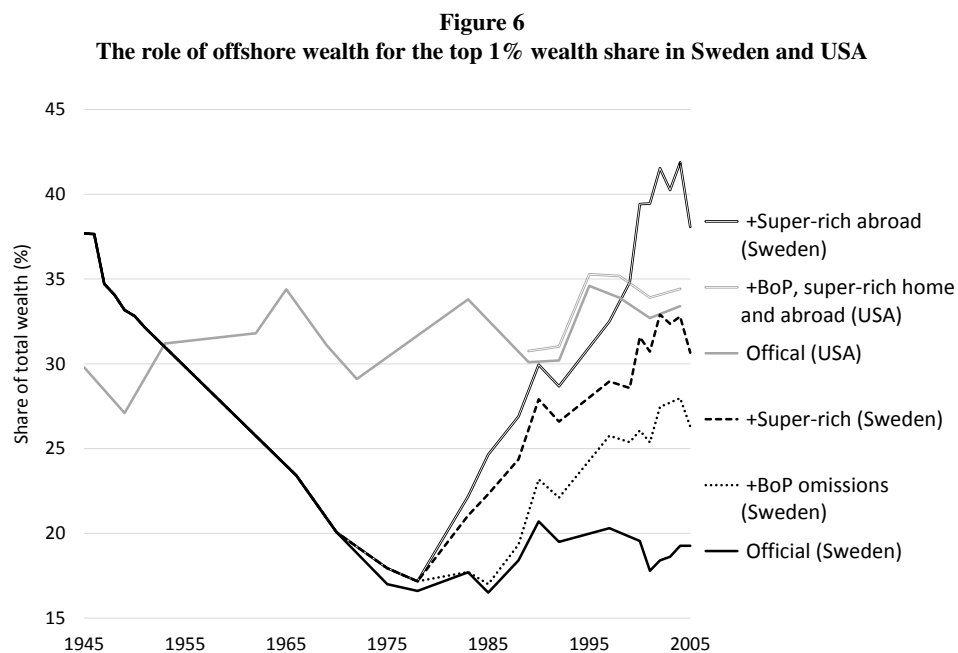
Figure 5
Balance of Payments errors and omissions in different countries



Source: Roine and Waldenström (2009), Data from IMF and OECD.

distribution was made for Sweden by Roine and Waldenström (2009). In that study we examined the balance of payments flows, specifically the cumulative net-errors and omissions that could reflect export revenues that were not fully disclosed to authorities but kept abroad. As we worked with cumulated data, we could not describe the characteristics of single capital flows, e.g. the countries involved in the transaction, the volume, etc. The question is, if either the balance of payment errors and omissions follow a systematical pattern for capital left outside of Sweden or do they simply oscillate around zero. Figure 5 shows the balance of payments errors and omissions. In 1989, the Swedish government enforced the liberalization of capital accounts and capital flows became basically free. The data reflect this institutional change as the payments errors and omissions had been relatively small before. Then, starting in 1989, we see some indications of capital outflow, which became larger in the 1990s. Since the 2000s, it has remained at a constant level of about ten to fifteen percent of the GDP. We observe similar patterns for Norway and for Finland. For the US, it is the other way round, *i.e.* capital inflow, and it is a relatively small share of GDP. We also provide data for some other countries, for example, Switzerland where we potentially can expect the converse effect (grey dashed line). There is a systematic relationship in these statistics that could indicate the existence of private offshore wealth, thus, we use these balance of payments errors and omissions as an indicator for potential tax driven capital flight.

The estimated Swedish offshore wealth holdings were then added to the official Swedish wealth distribution data, with the question of whether they make a difference or if it would be completely insignificant in the general context. Figure 6 gives a tentative answer, which is that the official data series for the top percentile wealth share increased by roughly one quarter, from 20 percent to 25 percent, when we added the offshore wealth to that percentile. Further, we also added wealth of super-rich Swedes living in Sweden. Although they are already part of the official series, those with fortunes in non-listed companies would not have their wealth fully accounted for in the wealth tax data. These people are listed as billionaires so they are, therefore, part of the top percentile. When we add them, we receive an even higher degree of wealth concentration (black dashed line). A controversial topic is Swedes who live abroad. These are individuals living typically in Switzerland, London or New York; including, for example, Ingvar Kamprad, the founder of IKEA, the founding family of Tetra Pak, as well as the founders of H&M, *etc.* One can argue that they do not belong to the Swedish resident population, but we included them as they hold large shares of Swedish capital. We come to the overall result of a top share of 20 percent for the top percentile in Sweden (official data, black line) to the extreme level including assets from tax havens and super-rich living in Sweden and abroad (grey line). The corresponding wealth share is here close to 40 percent, which is almost surely wrong, but it gives an indication about the distributional consequences of missing data.



Source: Roine and Waldenström (2009)

As a final test, we made the same adjustments to the official data for the US, i.e., including the cumulated balance of payment errors and omissions and the wealth of the super-rich home and abroad. However, these additions made almost no difference in the share of the top percentile. This could suggest that the specific Swedish institutions with high domestic capital taxation and liberalized capital accounts spur capital flight. In nearly all European countries there exists a public discussion about information treaties that are increasingly negotiated between tax havens and other countries. In my point of view, these treaties will influence these patterns on a large scale.

What determines the evolution of top income and wealth shares?

In this final section, we take on the big question of what lies behind the inequality developments discussed above. The historical patterns in top income and top wealth shares highlight many similarities across industrialized countries. In particular, the equalization over the twentieth century appears to be undisputed, and by an order of magnitude in most countries. However, the very last decades contain diverging trends, with some countries experiencing large increases in top shares while they are unchanged at the historically low levels in others. Any set of inequality determinants must be able to account for this combination of common and

distinct trends.

The previous literature offers several potential explanations to the documented inequality trends (see, e.g., Roine, Vlachos and Waldenström 2009; Atkinson, Piketty and Saez, 2011; Piketty, Saez and Stantcheva 2014; Roine and Waldenström, 2015). One way to understand them is to separate them into two groups, one emphasizing market-driven processes such as technological change, market globalization, or financial development, and the other emphasizing institutional factors such as regulation, taxation, constitutions, and norms. While useful, this dichotomization is not perfect. For example, some factors span both categories, e.g., financial development is both a function of technologies that affect the size or structure of market activities and a product of the regulation and taxation of the financial sector. Some market-driven processes, such as globalization, are also arguably in essence institutional outcomes, or political choice variables, that governments are able to set on or off at any time. If anything, this highlights the fact that the progresses are deeply endogenous, which is something that we are currently witnessing in international political arenas.

Let me bring up two channels that seem to be important for top income shares and that have also received some attention in the recent literature: the decreases in income tax progressivity and the deregulation of financial markets.

The role of income tax progressivity for the income distribution has been the subject of intensive scientific and public debate for a long time, but particularly after the period of progressivity-reducing tax reforms during the 1980s and 1990s that was seen in many Western countries. Particularly large were the cuts in top marginal income taxes, which went from being on average almost 60 percent around 1980 to around 40 percent in the early 1990s. There are several reasons, why marginal tax changes may affect the growth of before-tax incomes of top-income earners. One reason is that lower taxes create higher incentives to work, and if top taxes are lowered more than average taxes then top incomes will rise because top earners work more or harder. Another reason is income-shifting effects, where individuals may delay the realization of capital gains such that it becomes less taxed or substitute income from high-taxed earnings to low-taxed capital income.

Few studies examine the link between income taxation and top income shares, but those that exist seem to offer a fairly homogenous picture. Roine et al. (2009) use cross-country panel regressions, finding a strong and negative correlation between top marginal taxes and top income shares, and in a later study Piketty et al (2014) found similar results, which they argued had more to do with tax-avoidance than real responses. While these studies offer many insights they are unable to distinguish correlation from causation. In a recent paper together with Enrico Rubolino (Rubolino and Waldenström, 2017), I focus on the large tax reforms in the 1980s and 1990s, of which some reduced progressivity and top tax rates substantially. By using the novel synthetic control method, we show that the reductions

in taxation of top incomes had a significantly positive impact on top income shares and we offer tentative evidence that this effect works mostly through tax avoidance-responses.

Another potential determinant of inequality is financial deregulation. Together with Julia Tanndal, I analyzed the impact on top income shares of the drastic deregulations of the financial markets in the U.K. in the 1980s and in Japan in the late 1990s (Tanndal and Waldenström, 2016). These deregulations were denoted “Big Bangs” because of their comprehensive nature and explicit aim to revitalize the financial sectors in the respective countries. Our findings suggest that the deregulations did have an effect on top income shares and that it was a positive one. By using the synthetic control method, we found that top income shares increased more in the U.K. and Japan in the years after the reforms than in the comparison groups. The effects were not negligible, being around 10 and 30 percent, with higher effects on incomes of the very top groups.

Concluding remarks

To conclude, the research highlighted in this presentation shows several things. One is that rich people are not of one single kind, but different from each other in terms of how they got rich, what kind of income they earn (wages or capital returns), what assets their wealth is made up of, and, not least, how much they earn or own. A serious analysis of economic inequality needs to take these differences into account. Furthermore, inequality trends differ for income and wealth because income inequality has increased significantly over the past decades whereas wealth inequality has been rather stable. The latter can also be questioned, as the research on offshore wealth may indicate. Moreover, political institutions are a key factor: Marginal tax rates as well as market deregulation and liberalization seem to influence the top income level.

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