The Rich, the Affluent and the Top Incomes: a literature review

Marcelo Medeiros
Institute for Applied Economic Research, University of Brasilia
mclmdr@unb.br

Pedro H. G. Ferreira de Souza
Institute for Applied Economic Research
pedro.ferreira@ipea.gov.br

The authors would like to thank Ajit Zacharias, Alessandra Michelangeli, Andreas Peichl, Antonio Cattani, Camile Landais, Conchita D’Ambrosio, Edward Wolff, Emerson Rocha, Emmanuel Saez, Flavio Carvalhaes, Florencia Torche, Joseph G. Eisenhauer, James K. Galbraith, Michal Brzezinski, Nico Pestel, Olivier Godechot and Rodolfo Hoffmann for reading or making suggestions to an earlier version of this paper. Marcelo Medeiros would like to thank the support of the University of California Berkeley - IRLE while working in part of this paper and the financial support of CNPq. Submitted to Current Sociology.

Brasilia, August 24, 2014
The Rich, the Affluent and the Top Incomes: a literature review

Abstract

We review the literature on the rich, the affluent and the top incomes earners focusing on the determinants of affluence or richness. The review surveys empirical results about the composition of the income and wealth of the rich and its direct determinants, such as individual characteristics, the State and the structure of production. We cover literature beginning with the early twentieth century but give special attention to research conducted after the 2000s. We attempt to cover studies from all regions of the world, despite the concentration of current research on developed countries. Our main conclusion is that factors not related to productivity are a key determinant of affluence and that this has not changed much over the last century.

Keywords

Income Inequality; Wealth Inequality; Top incomes; Rich; Affluence. Social Stratification
The Rich, the Affluent and the Top Incomes

1. Introduction

Studying the top income and wealth distributions is crucial for a deeper understanding of social inequality. In many countries, top income shares are disproportionately high and often rising and the top 1% or 2% usually earn as much as the bottom 50% of the population combined. Wealth distribution seems to be even more concentrated at the top. As a result, top incomes and top wealth holders – that is, the ‘rich’ or the ‘affluent’ – are normally key players in the economy, exerting a great deal of influence on production and consumption trends. Furthermore, money can also bring political and cultural power, allowing the rich to play influential roles in many of the echelons of society.

Concerns about the concentration of income and wealth are not new. Neither is the study of the rich. A systematic approach to the question of ‘what makes someone rich?’ can be traced as far back to the social scientists of the eighteenth century. The literature about the study of the rich has a long history and has been growing rapidly in the last decades. In 1925, Sorokin wrote that “wealthy men as a specific social group have been studied very little up to this time”; since then, things have changed and the number of studies about the rich around the world can be counted in the hundreds and will likely continue to increase at a fast pace.

In this paper we survey the international literature on the rich, the affluent and the top incomes and wealth holders. The review focuses on the determinants of affluence or richness in general, and specifically on the composition of the incomes and the wealth of the rich and the role of determinants such as individual characteristics, the State and the structure of production. We include scientific research published since the early twentieth century, but concentrate our attention to research conducted after the 2000s. We make a special effort to cover studies from all regions of the world, despite the focus of current studies on developed countries.

Research on the rich does not belong to a single discipline. On the contrary, it can be found in multiple areas of the social sciences, in part because the field

---

1 Sorokin’s article, American Millionaires and Multi-Millionaires: A Comparative Statistical Study, published in the Journal of Social Forces (Sorokin, 1925) is perhaps the first of the modern studies about the rich.
studying the economics of inequality is increasingly recognizing the importance of non-market institutions in the dynamics of the economy at the same time as the sociology of stratification progressively treats income and wealth as a legitimate subject of analysis (Myles, 2003). For this reason we did not limit the literature to be reviewed other than its substantive content.

We surveyed only part of the literature in the field. Our focus is on studies about what determines the income and wealth of individuals, particularly those which allow for some generalization at the country level and on studies that measure affluence or richness. However, given their relevance to the field, some of the topics we do not discuss deserve to be noted.

First, we did not review the literature on the levels and trends in overall inequality and top-end shares, since such surveys are already available. They point to an increasing concentration at the very top of the income distribution in Anglo-Saxon countries, India and China and relative stability or slight concentration in continental Europe and Japan in recent decades (Alvaredo et al., 2013; Atkinson et al., 2011; Keister and Moller, 2000; Keister, 2014; Piketty and Saez, 2006), and to a higher inequality in the distribution of wealth than in the distribution of income, with a high but decreasing concentration among the rich in several countries over most of the twentieth century (Atkinson, 2008; Davies, 2008; Davies et al., 2011; Ohlsson et al., 2006; Wolff, 1996, 2006).

Second, we did not review the literature about how the concentration of the rich affect the behavior of the income distribution over time, nor macroeconomic or structural analyses that could not be directly related to the rich as individuals, such as studies on finance, taxation and the functional or factor distribution of income. Third, we also excluded some of the literature on the consequences of being rich, such as patterns of consumption, savings, and effects on subjective well-being.

Some overlapping with other literature reviews was unavoidable. These reviews include, but are not limited to, studies about the top 1% richest in the USA (Keister and Lee, 2014; Keister, 2014), wealth inequality in Latin America (Torche and Spilerman, 2008) and in other countries (Wolff, 1996), a history of top income shares and its determinants (Alvaredo et al., 2013; Atkinson and Piketty, 2010; Atkinson et al., 2011; Piketty, 2007), to list a few examples. Because they focus on particular subjects, are different with respect to geographical areas or cover a
literature in a different period, we understood them as complementing our review, usually with more detail, specificity and depth.

We should make a few remarks about terminology and definitions. First, the rich, the affluent, the top incomes and, to a minor extent, the top wealth holders, are terms used to describe a group that in some studies is limited to the richest people in the world and in other studies may include millions of people. The terminological diversity often expresses theoretical or even political differences. There are several ways of defining affluence lines and, even though the results of these definitions sometimes converge, the levels above which someone can be considered rich, affluent or in the top incomes class vary considerably. Because there is no consensus on where affluence begins, many studies create their own affluence line. For practical reasons, in this review the terms will be used interchangeably, but we make an effort to highlight the type of definition used in each study.

Second, conclusions about the determinants of affluence depend on the way the rich are defined. For example, the rich are mostly ‘working rich’ when lower affluence lines are used but predominantly capitalists and rentiers when these lines are raised. Apart from the obvious indication that a rigorous comparison of different studies is possible only when definitions and data sources are harmonized, this shows that the rich are a heterogeneous group. We found no means of organizing the empirical evidence about the rich according to the definitions and data used, but tried to take that into account by mentioning methodological differences whenever they were relevant.

Perhaps at the risk of oversimplifying a large debate, we would like to anticipate our main conclusion. It seems that the majority of the empirical studies we reviewed tends to converge along the argument that affluence is strongly affected by factors that have little or no association with economic productivity. For example, controlling the social mechanisms that regulate the distribution of the products of the economy seems more important to affluence than economic efficiency.

2. What makes someone rich?

In this section we discuss the results of a relatively large empirical literature about the determinants of affluence. We make an attempt to contrast and summarize the main conclusions of the debate, but our generalizations should be interpreted
carefully since they are influenced by the way the rich are defined. We also make an effort to highlight whenever divergences between studies could be due to methodological differences and to indicate points in which the debate is, in our evaluation, still inconclusive.

We begin by showing the results of the literature about the composition of the income and wealth of the rich, with special attention to the role of labor and capital incomes, and then proceed to present findings about causal determinants. To organize this section we grouped these determinants into three large groups, the individual characteristics, the state and the structure of production. With this division we tried to keep together findings regarding, respectively, the supply of labor, political institutions and the demand for labor. However, this division exists only for analytical purposes as there is obvious interaction between the three.

Naturally, there may be other determinants of affluence. Those concerned about the moral justification for affluence would probably include hard work, luck or risk taking as important determinants. On the other hand, those less sympathetic to that type of moral discourse, such as Veblen (2007 [1899]), would easily include fraud and manipulation in the list. Indeed, an empirical analysis of biographies and interviews conducted by Villette and Vuilermot (2005, 2009) points to political influence, rent-seeking and predatory behaviors as sources of very large fortunes. However, because the literature we reviewed has difficulties with the large scale measurement of these behaviors, we do not deal with them specifically.

2.1. The composition of the income and the wealth of the rich

Income

Definitions of income, populations and sources of data vary from country to country, as Atkinson (2005a, 2007) points out. Yet, it seems that labor earnings are an increasingly important source of income for the rich, at least for the top 1% richest in many countries. Capital incomes, including rents, are clearly the main source of income of individuals or families only at the very top of the distribution. In France, for example, this occurs only at about the top 0.1% (Landais, 2008).

Regular household surveys have difficulty capturing capital incomes so one would expect the higher incomes in surveys to be predominantly labor incomes. Yet, tax records also show that the so-called ‘working rich’ – CEOs and other high-
ranking executives, well-compensated professionals and self-employed workers, among other groups – are numerous in many countries. For example, labor income is the largest single factor component of the income of the richest 1% or so in France (Landais, 2008), Canada (Fortin et al., 2012), Colombia (Vélez, 2012: 23), Argentina (Alvaredo, 2010), Brazil (Medeiros, 2005), Indonesia (Leigh and Van der Eng, 2009), the USA (Feenberg and Poterba, 2000; Parker et al., 2010; Piketty and Saez, 2013; Wolff, 2000) and Chile (Friedman and Hofman, 2013; Sanhueza and Mayer, 2011). Nevertheless, there is some controversy about this claim when a broader definition of income is used, at least in the USA where capital income becomes roughly as important as labor income (Wolff and Zacharias, 2009), or when the concept of ‘labor’ excludes self-employment, as in Germany (Bach et al., 2009).

One could ask why capital incomes are a secondary source of income for the richest 1%. There are at least three possible explanations. First, the existing measurements are correct and capital incomes simply are not the major source of income of the rich. Second, it may be a result of how ‘personal income’ is defined: capital incomes are often intermediated by corporations or financial funds and sometimes are not accounted for as incomes but reinvestments. If so, a survey or individual tax database will hardly be able to measure them accurately. Third, it may also be influenced by the very definition of ‘capital income’: depending on the classification used, distributed profits and compensations paid to owners of firms are recorded as ‘labor incomes’, especially when they follow a regular monthly schedule.

Many studies agree that in developed countries capital lost its place of importance to labor in the composition of top incomes after the 1980s or even before that (Feenberg and Poterba, 1993; Landais, 2008; Piketty and Saez, 2003, 2013; Piketty, 2003, 2007, 2013; Slemrod, 1994). Yet, Hungerford (2013) notes that between 1991 and 2006 changes in capital gains and dividends were the main sources of income concentration among tax filers in the USA – the share of capital gains in total incomes is increasing and becoming more concentrated. Similarly, Wolff and Zacharias (2013) found that the increase in income inequality between 1989 and 2000 in the USA was driven by the growth in the share of income from non-home wealth.

The recovery of capital is predictable. The rich have higher savings rates (Carroll, 2000; Dynan et al., 2004) and at some point part of this investment will
return in the form of capital incomes. Unless top wages keep increasing, or taxation on income and wealth rises, it is expected that at some point capital incomes will recover, at least partially, the share they have been losing, as Piketty (2007, 2013, 2014) notes. If earnings are becoming increasingly concentrated and workers save part of these earnings in pension schemes, one should expect an increase in the contribution of pensions to inequality in the future. Indeed, the share of pensions in the GDP is increasing in several OECD countries (Lazar and Stoyko, 1998) and their progressivity decreasing in the USA (Coronado et al., 2002, 2011). Pensions, public or private, may be particularly important in lower income countries, where the composition of income differs from that of developed economies. They are extremely concentrated at the top of the distribution of income in Mexico (Esquivel, 2011), Chile and Brazil (Hoffmann, 2003; Soares et al., 2009) and somewhat concentrated in other countries with high income-replacement ratios (Brown and Prus, 2006; Goudswaard and Caminada, 2010; Palme, 2006).

However, very little has been written about the role of pensions in the income of the rich. Alvaredo (2010) found that among the richest 1% in Argentina, about 30% of incomes come from salaries and pensions, but does not provide a disaggregation of these two sources. Using FGT-based measures of richness, Medeiros (2005) calculates that pensions contribute only as a secondary source of income for the rich in Brazil. Preliminary results for the USA suggest that in 2013 the profits and interests paid by pension funds would also be a secondary source of income, but amounted to more than the total of corporate profits (Saez and Zucman, 2014). What calls attention here is not so much the relative importance of pensions in the total income of the rich, but the fact that pensions, particularly public funded pensions, are being directed to the top of the distribution in high inequality countries.

Wealth

Survey data on the distribution and composition of household wealth is available for a limited number of countries. A recurring pattern indicates that the poor usually have little or no wealth and owner-occupied housing is by far the most important asset owned by the middle classes, whereas the top wealth holders have a much more diversified portfolio, with a strong presence of business and investment
In the United States, a country with abundant wealth data, researchers already noted in the 1950’s that the share of the principal residence in total household wealth peaked towards the upper middle of the wealth distribution and that the rich were much more likely to invest in stocks and other financial assets (Katona and Lansing, 1964; Lampman, 1959). More recently, research has consistently shown that households in the top 1% of the wealth distribution hold between 25% and 35% of their assets in corporate stocks, financial securities, mutual funds and personal trusts, and between 35% and 45% in unincorporated business equity, while their principal residence accounts for 10% or less of their assets. This adds up to roughly half of all outstanding stocks, mutual funds and trusts, two-thirds of financial securities and between 60% and 70% of total business equity (Davies and Shorrocks, 2000; Keister, 2014; Kennickell, 2009; Spilerman, 2000; Wolff, 1998, 2006). Estate and tax data do not diverge much from surveys when it comes to the portfolios of the wealthy, although Kopczuk & Saez (2004) do note that stocks became less concentrated among the very wealthy since the 1980’s. The same overall pattern was also observed in France since the nineteenth century (Piketty et al., 2006, 2014). This led Carroll (2000) to conclude that the wealthy simply are not “scaled-up versions of everybody else”, as their asset holdings are skewed towards risky investments and their own entrepreneurial ventures, possibly as a result of capital market imperfections.

Yet, in other countries, this pattern is not as strong. For instance, in Spain stocks only overtake real estate as the most important component of net worth among the top 0.01% (Alvaredo and Saez, 2009). There is also sparse but suggestive evidence that real estate plays a larger role in developing countries. Subramanian and Jayaraj (2008) note that financial assets barely reached 5% of total household wealth in India in 2002 and that, unlike other countries, asset diversification was a declining function of wealth, as the wealthiest invest heavily in land holdings.

It is not clear whether this also happens in more urbanized developing countries. In Latin America the estimated share of total housing wealth accruing to the top tenth ranges from 26% (Uruguay) to 65% (Bolivia) and the ownership of financial assets is about four times more common among households in the top 10% of the income distribution in the United States than in Chile or Mexico (Torche and
Spilerman, 2006, 2008, 2009). However, there is no data to determine directly the relative weights of different assets in the portfolios of the rich.

2.2. Determinants of affluence

2.2.1. Intergenerational immobility and Inheritances

Intergenerational transmission of material wealth and other advantages is an important determinant of being rich. To a lesser extent, this is also true in the case of incomes, as studies about earnings and occupational mobility have shown. Moreover, kinship is related not only to the transmission of fortunes from one generation to the next, but also to the transmission among family members of the same generation. The literature tends to give more attention to mobility than to the specific role of wealth inheritance, in part because it is difficult to measure precisely the role inheritances had in the composition of fortunes. Inheritances can be added to existing wealth, reinvested and result in even more wealth (Spilerman, 2000), and more importantly, there are other means of transmitting advantages from generation to generation that allow rich individuals to influence the social position of their descendants.

The statistical analysis of intergenerational mobility began in the early 1900s. Emily Perrin (1904), analyses contingency tables to estimate that social origin determines about one third of the choice for a profession, a value somewhat lower than the three quarters Pearson (1904) estimated with her data. A few years later some studies began focusing specifically on the measurement of the mobility of the rich. A USA governmental report found that in 1914 the fortunes of the rich who represented more than half of all the personal wealth of the country was mostly inherited and that the inheritors transferred the responsibility of administrating their wealth to professionals (the executives and investment funds of today). The report recommended those fortunes be taxed in order to reduce inequality (USA, Commission on Industrial Relations and Walsh, 1915). Sorokin (1925) found a high intergenerational transmission of wealth among USA millionaires, and that most of the wealthy came from parents who were manufacturers, merchants, bankers and businessmen.

In the early 1970s Atkinson (1971) concluded that life-cycle factors alone cannot explain the upper tier (1% and 5%) of the distribution of wealth in Britain
and that there were reasons to believe this wealth is related to inheritances. Russell (1979) comes to the same conclusion after examining USA data from 1960, 1962 and 1965. However, this relationship may not be stable over time. Hurd and Mundaca (1989) find a decrease in the role of intergenerational transfers in the wealth of the affluent in the USA between 1964 and 1983, but it is possible that this result was affected by the comparison of surveys with different methodologies and sample sizes. In a more recent study, Keister and Lee (2014) show that a high proportion of those of top wealth holders in the USA inherited large sums.

Similar results are found in many countries. In Chile, Torche (2005) found that strong mobility barriers between the top and the rest of the class structure coexist with very high fluidity among the non-elite classes. In Brazil, Albuquerque (1994) found high levels of occupational reproduction among generations of the rich. In the late 1980s, between one-third and one-half of the rich (top 1%, survey data) had the same occupation as their parents. Ferreira (2001) used a different methodology but arrived at the same general conclusion about the permeability of elites. Based on a panel of tax data from Canada, Finnie and Irvine (2006) observed strong intergenerational reproduction among the very rich, particularly among the top one thousandth of the distribution of earnings; half of them have come from families above the top decile of the distribution twenty years earlier. Keister’s (2014) review of USA evidence also highlights the key role inheritance has on the accumulation of wealth. Indeed, comparing 16 highly industrialized countries, Semyonov and Lewin-Epstein (2013) found that wealth holding increases with income and the reception of inheritance.

The conclusions about inheritances are robust to different definitions of affluence and sources of data. Canterbery and Nosary (1985) run regressions based on data for the Forbes 400 in the USA and found that inheritances account for 43% of their fortunes. Broom and Shay (2000) also use Forbes data and conclude that between one quarter (F400) and one third of individuals (F1115) in these rich lists inherited great wealth. Five out of ten top Australian wealth holders in 1994 and at least four out of ten in 2006 became rich due to inheritance of family businesses (Stilwell and Jordan, 2007). Results based on probate records and biographies point in the same direction. Probate records from Cleveland (USA) in 1964-5 indicate that about three-quarters of the assets of the wealthy were inherited (Inhaber and Carroll, 1992: 91). Biographies of rich persons in the USA in the late 1950s and 1960s
indicate that many large wealth-holders initially inherited much property, although many have also increased their holdings in their lifetimes (Lundberg, 1969; Tickamyer, 1981). Finally, using survey data Wolff (2002) estimates that in the USA, inheritances in 1998 accounted for about one fifth of the total wealth of those with a wealth level of USD 500,000 or more, with the proportion falling somewhat for the extremely rich.

Some argue that levels of mobility into the ultra-rich class could be considered high because a fair number of the ultra-rich (say, Forbes 400) were not ultra-rich in the previous generation (Hazledine and Siegfried, 1997; Siegfried and Roberts, 1991; Siegfried and Round, 1994). This is disputable as these studies look only at the composition of the rich and ignore the relative odds of being wealthy. A more careful analysis indicates that the probability of being rich is thousands of times higher for inheritors – and, more generally, for those born into richer families – and that the incidence of inheritors among the rich is disproportionately high when compared to the rest of the population.

International comparisons based on the literature reviewed by Erikson and Goldthorpe (2002) and by Breen and Jonsson (2005) corroborate that in all industrial societies there is a strong relationship between class origin and destination. Intergenerational transmission is even stronger for higher classes, as professionals and managers. There is some dispute about whether this relationship changes over time, but the evidence in the studies reviewed by Piketty (2000) tends to point towards the relative stability of these patterns.

All other things being the same, the more unequal the society, the more important positional mobility tends to be, as there are larger distances separating persons. Yet, mobility is lower precisely in highly unequal countries (reverse causality should not be discarded). Analyzing 15 countries from Europe, North America and Oceania, Andrews and Leigh (2009) found that countries which were more unequal during the 1970s had less intergenerational mobility during the 1990s. It seems that, to a large extent, the rich are rich due to an inherited control of opportunities.

Furthermore, transmission occurs not only between generations but within families in the same generation. In a historical perspective, Lampman (1959) observed that half of the apparent decline in the concentration of wealth in the USA
from 1922 to 1953 was in fact because of redistribution within families. Broom and Shay (2000) note that in the USA, one-fourth of the Forbes 1115 richest individuals have a kinship tie to another rich person, primarily through a blood relation rather than by marriage. Regressing on that data they found kinship ties to be one of the strongest determinants of fortunes, with rich individuals and families linked by kinship being substantially wealthier than those with no affiliations.

Patterns of intergenerational mobility are, to some extent, repeated in mobility over the lifetime of an individual. Relative movements from lower positions in the distribution to the top are modest in Chile (Sanhueza and Mayer, 2011), Canada (Saez and Veall, 2005) and the USA (Kopczuk et al., 2010), except for women, who experienced a relevant upward mobility from the 1980s on. On the other hand, absolute mobility within the top, that is, from a high to an even higher level, seems to be reasonably common and an important factor behind the rise in inequality in many countries in North America and Europe.

2.2.2. Superstars, Winner-take-all and Exceptional abilities

There is debate about what is behind the high incomes of the working rich. Kaplan and Rauh (2013) and Baranchuk et al. (2011) believe that the rise in income and wealth shares for the top 1 percent in the USA is most consistent with a “superstar”-style explanation, that is, information and communications technologies increase the relative productivity of highly talented individuals, or “superstars”, who are able to manage or to perform on a larger scale. Notwithstanding, others have interpreted this evidence differently. They argue that “superstar” theories may be useful to explain the rise in the income of superstars in some industries, but not broader changes in the income distribution, particularly those below the very top (Kim et al., 2013; Landais, 2008). In their favor is the fact that they systematically analyze the composition of the top 1% while Kaplan and Rauh, and to a lesser extent Baranchuk et al., center their discussion on a much smaller share of the population – a few hundred executives, superstars and billionaires.

There is some evidence that, for the highest positions in the labor market, the relative performance against a group of competitors is more important than the absolute productivity of workers – as if job compensations were the reward for a ‘winner-take-all’ tournament. Typically, this is the situation found in some highly specialized occupations where much is at stake, such as CEOs of large firms, or
lawyers and physicians. Indeed, there is evidence of a correlation between CEO salaries and compensations and the scale of the firms, and given the skewness in the distribution of company sizes, a minuscule advantage over other potential CEOs may imply significantly higher remunerations (Frydman and Saks, 2010; Gabaix and Landier, 2008), sometimes with one CEO taking over the position of another (DiPrete et al., 2010). What is not clear yet is how much of the top earnings can be explained by this type of market structure.

Of course, the rich may be rich because they have exceptional productive abilities, immensely higher than those of the rest of the population. These abilities are difficult to measure directly and arguments along this line run the risk of being more a moral justification for inequality than an actual examination of the determinants of affluence. Without any measurement of productive abilities, even a weak one, to say that some people are rich because the market decides to generously remunerate what they are capable of doing is rather tautological. Such emphasis tend to mask the organization of economic production and the institutional underpinnings that allow high remunerations. As a matter of fact, what we know about abilities is that their distribution is not as unequal as the high differentials in earnings that separate the rich from the rest.

At any rate, a more rigorous contrast between exceptional productive abilities and market structure (concentration) theories to explain the rich awaits more data and research. At the moment it seems prudent to say that if the exceptional abilities or the superstar hypotheses are valid, they account for a small share of the rich.

2.2.3. Human capital and schooling

Education is an important determinant of inequality and perhaps the most important determinant of intergenerational mobility for the lower classes. A conventional approach is to assume the correlation between schooling and income expresses returns to investments in human capital. However, unless human capital is understood in a very broad sense - perhaps so broad that it makes the concept almost useless for empirical research -, the rich do not seem to be much richer than others because they invested more in human capital.

Most of the rich are well educated, but education, as studies observe, is far from sufficient to make someone rich. This was already a fact in the nineteenth century, when college education was rare (Sorokin, 1925), and it has probably
become even more true nowadays, as the share of inequality explained by schooling has been stable or has fallen in many countries (Erikson and Goldthorpe, 2002; Trostel et al., 2002). Such an assertion is probably also true for developing countries, as many of them – especially in Latin America – are currently witnessing falling returns from education in the wake of the expansion of their educational systems.

Analyzing data for the USA, Inhaber and Carroll (1992: 148) conclude that while human capital theory may predict incomes for up to 90% of the population with a degree of certainty, for the top incomes it seems elusive. The same can be said for a developing country: counterfactual simulations for Brazil show that neither schooling nor any other observable variable used in conventional wage equations provides a strong explanation for why someone is rich (Medeiros, 2005). Therefore it seems reasonable to say that higher education may be necessary but by no means is sufficient to make someone rich.

2.2.4. The state

Direct income flows

Income from the State can be divided into direct flows to persons or families and indirect flows to companies and other organizations which are later appropriated by individuals. Direct flows are usually understood as social transfers – public pensions and assistance – but in the case of the rich there is one class of direct transfers that should not be ignored, that is, wages paid to workers in the public sector.

Direct government flows received relatively little attention in the literature on the rich. There is divergent evidence how these transfers affect the rich. Comparing tax data in 16 countries in North and South America, Western Europe, Asia and Oceania, Roine, Vlachos and Waldenström (2009) found that direct government spending does not favor the top 1% in a relevant way. Fuest, Niehues and Peichl (2010) reach similar findings for the Enlarged European Union, as one can infer from their analysis based on a generalized entropy measure (GE2). On the other hand, there is evidence that government wages favor the top 1% in Singapore (Atkinson, 2010) and pensions favor disproportionally the top 0.9% in Brazil (Medeiros, 2005).
Even less attention has been given to indirect income flows. Although there is some evidence that economic elites are capable of influencing politics to their own advantage and that this is probably driving up inequality in the USA (Bartels, 2008; Bonica et al., 2013; Gilens, 2012), it is very hard to measure how indirect transfers affect the personal income distribution, not to mention the distribution of wealth. A subsidy, for instance, is partially incorporated into prices, which results in changes in profits and at some point will be redistributed to shareholders. Similarly, government bonds pay interest to pension funds that at some time in the future will be transferred to pensioners. In addition, state expenditures affect inequality among individuals in many other ways. Expenditures on infrastructure, science and technology or defense, for example, do not affect all individuals in the same manner, either because the government buys from specific companies or because the results of its actions benefit only part of the population. In a broad sense, these expenditures can be understood as government transfers or flows of income, ultimately from the treasury to individuals. However, difficulties in obtaining data make tracking these flows virtually impossible.

**Taxes**

Both direct and indirect taxation affect inequality. Yet, most studies focus on direct taxation, such as income and property taxes, because it is difficult to relate some types of indirect taxation or the taxation of corporations to the personal distribution of income. The distributional impact of certain indirect taxes, like sales taxes, can be more easily estimated using consumption surveys, but the distribution of other types of indirect taxation require more information and different techniques. When a corporation or an investment fund is taxed, this taxation will end up being paid by individuals, but it is very hard to link that taxation to the incomes of all their owners, particularly when they are formed by a cascade of other corporations and funds.

What studies have shown is that taxes can be an important equalizing factor. A report in 1915 from the US Commission on Industrial Relations (1915) argued for the increase in the taxation of the rich in order to reduce the high levels of inequality. Increased tax progressivity has been proposed as an explanation for low levels of inequality in industrialized countries after the shocks of World War II. Part of the increase in this inequality after the 1980s has also been related to lower taxation on
the top incomes (Atkinson and Piketty, 2007, 2010; Atkinson, 2005b, 2010; Bargain et al., 2013; Feenberg and Poterba, 1993, 2000; Hungerford, 2013; Piketty and Saez, 2003; Piketty et al., 2006; Piketty, 2007, 2013; Riihelä, 2009; Roine and Waldenström, 2008; Roine et al., 2009; Saez, 2004; Stilwell and Jordan, 2007). Moreover, tax cuts in one country may affect inequality in another country, as firms must compete for skilled workers, as seems was the case of Canada (Saez and Veall, 2005).

Apparently, taxation of top incomes reduces inequality without seriously affecting productive behaviors, in particular the supply of labor. Goolsbee (2000b) and Saez (2004) found that except for executives with very high compensations, in the USA the working rich do not adjust their behaviors, nor their patterns of remuneration, to tax laws. Roine and Waldenström (2008) found no effect of taxes on hours worked in Sweden. There is some controversy on how to calculate optimal tax rates (Goolsbee, 2000a), but based on cross-country evidence, Piketty and Saez (2013) estimate that the optimal top tax rate in the USA can range from 57% to 82%. In 2013 this rate was 39.6% for single people with yearly incomes above USD 400,000 and the historical peak was above 90% between 1944 and 1964. These findings and estimates may have immediate implications for policymaking. If this is a widespread phenomenon, then in many countries top tax rates could be much higher than they actually are without harming much of the overall performance of the economy.

Notwithstanding, taxation may be ineffective to reduce inequality if progressivity is limited to individual incomes and is not sustained over time, as in some countries where top paid workers can establish individual firms to benefit from lower levels of corporate taxes, change their tax residence to tax havens or find other mechanisms to reduce taxation. Goolsbee (2000b), for instance, observed that top executives in the USA choose to receive payment in stocks so they can regulate the timing of the capital gain realization to minimize tax payment in a specific year and Harris, Morck and Slemrod (1993) noted that some USA firms shift their profit incomes to low-tax countries.

Progressivity in taxation is a political decision. Yet, not much is known about the political processes that establish lower or higher tax rates around the world. Allen and Campbell (1994) argue that partisanship and class power are important determinants of progressivity, but macroeconomic conditions and state imperatives
such as budget deficit management – are probably the major determinants of tax policy. This conclusion refers to the USA and a generalization still depends on more research, but the implication is that a high level of spending in a year will tend to raise taxes and produce less inequality in the following years, all else being the same.

Furthermore, it should be noted that if taxation is an important equalizing factor, then a reasonable share of inequality is not determined by production itself but by political decisions about the appropriation and distribution of the results of production, that is, social norms. These decisions express, at their core, a choice for the acceptable levels of inequality in a society.

2.2.5. The occupational structure

In some cases, occupational titles are the only information available to analyze inequality or produce a profile of top earners, particularly for earlier historical periods (Soltow, 1968). Often occupations and education are all retrospective information available for the study of intergenerational mobility and neo-marxist class schemes have attempted to distinguish those at the top of the social hierarchy from the rest of the population using occupational titles (Wright, 2005).

Today, occupational titles generally provide very limited information by themselves to identify who is rich. There is much heterogeneity within occupations, especially at the higher end of the income distribution. Not surprisingly, only a fraction of people in each occupation is in the high income group. Besides that, changes in very dynamic sectors can transform substantially the activities and prerogatives indicated by occupational titles, limiting comparisons over time. In this sense, the conventional approach used in intergenerational mobility studies, that of forming classes based on occupational titles, can hardly contribute to the study of the trends on income inequality caused by a concentration of incomes in the top tier of the distribution, as DiPrete (2007), Kenworthy (2007) and Myles (2003) have already noted.

Still, some occupational patterns among the rich can be identified in the recent literature about developed countries. At the very top of the income distribution - say, above the 0.1% - rentiers, entrepreneurs, CEOs and superstars tend to be more frequent. Below that, at the top 1%, one finds a slightly wider range of occupations in all sectors and industries of the economy, including lower rank
managers, professionals and public servants, depending on the country being analyzed. The rich are not only capitalists but self-employed workers and employees, many of whom manage the capital of others. Nonetheless, the working rich are not only workers, in the ‘proletariat’ sense of the term, as they also derive a large share of their total income from dividends and capital gains and, sometimes, receive remuneration in the form of stock options. As a matter of fact, since the 1990s stock options are the largest share of the compensation of top executives in the USA, even though they are employees of the corporations they manage (Abowd and Kaplan, 1999).

The prevalence of the working rich at the top of the distribution is a common finding. Albuquerque (1994) points out that, in Brazil in 1988, the majority in the top 1% were employees – higher level managers and executives; Sanhueza and Mayer (2011) found 60% of employees among the top 1% in Chile in the late 2000s, whereas employers were less than 20% of the total. This finding does not change much when one examines richer countries and climb higher in the distribution. In France, in 2000, 60% of those in the top 0.1% were administrative managers, and their presence in the top incomes has been increasing since the mid-1980s – they were less than 20% of the top 0.1% in the early 1980s (Godechot, 2012). A similar pattern is found in the USA since the 1990s (Bakija et al., 2010; Kaplan and Rauh, 2010; Keister and Lee, 2014; Keister, 2014; Parker et al., 2010; Wolff, 2000) and Canada (Fortin et al., 2012; Saez and Veall, 2005).

As one can expect, at the very top of the distribution, where wealth certainly matters more than personal income, the rich are essentially entrepreneurs and rentiers. The Forbes richest 400 in the USA, the Money Magazine 200 in Britain or those in the super-fortunes list of the Business Review Weekly in Australia are almost all owners of large companies (Broom and Shay, 2000; Canterbery and Nosari, 1985; Gilding, 1999; Siegfried and Roberts, 1991).

Part of the literature about top incomes, particularly that about the long term evolution of the rich, is concerned about the role of skills and technology in determining inequality (Atkinson and Piketty, 2010; Atkinson, 2003; Atkinson et al., 2011; Gabaix and Landier, 2008; Kaplan and Rauh, 2010; Landais, 2008; Philippon and Reshef, 2012; Piketty and Saez, 2006; Piketty, 2007, 2013; Saez and Veall, 2005). The issue is important for testing modernization theories of inequality, such as the
technological change mechanisms that are the basis of Kuznets' hypothesis (Kuznets, 1955).

Although a skill intensive economy will tend to show a particular occupational structure, the fact is that it is not simple to evaluate whether the demand for skills is a determinant of top remunerations. At this level, the supply of skills is hard to observe accurately; actually, studies arguing that skills are an important determinant of high incomes often presume – not observe – skills based on the price of labor, which renders tautological most conclusions about the rich based on such assumptions. Further, if it is reasonable to imagine changes in the occupational structure that cause an upwards shift in the demand for skills in countries transitioning from agricultural to industrial economies, the same cannot be said about assuming the same shift of demand in highly industrialized countries.

There is no conclusive evidence supporting the idea that the rich result, predominantly, from the demand for skill-intensive work. For instance, the rich do not seem to be a by-product of a high demand for workers who are technologically qualified: engineers and related groups of service professionals are not and are not becoming a majority among the working rich. Moreover, in countries or even within firms with similar levels of technology, high-skilled workers are remunerated differently, even within the same occupations, and the trends in their remunerations are also different (Godechot, 2012; Piketty and Saez, 2006; Piketty, 2004; Saez and Veall, 2005).

Although some argue that the increase in the remuneration of CEOs and workers in the financial sectors in some countries is a result of a technological change that demanded highly specialized labor (Philippon and Reshef, 2012), the existing evidence points in the direction that it is not so much the technical skills of these workers but their social competences, their control of information, their power to influence their own payment and the size of their firms that allows for very high remunerations. Research has shown that CEOs have a non-transferable influence over a network of customers, suppliers, other CEOs, the executive board of the companies and lower rank managers, and detain privileged information about their own companies and competitors. For a corporation, the high remuneration of executives and their immediate subordinates is a way to control this network and manage crucial information, which are particularly valuable in large firms (Bebchuk
and Fried, 2005; Bebchuk and Grinstein, 2005; Belliveau et al., 1996; Bertrand and Mullainathan, 2001; Bivens and Mishel, 2013; DiPrete et al., 2010; Godechot, 2006, 2009, 2012; Hambrick and Finkelstein, 1995; Kim et al., 2013; Wade et al., 2006).

In short, technological change may affect the income of the rich in many ways – by making firms more hierarchical, concentrating core decisions, enlarging the scale of companies and granting monopolies, just to mention a few examples – but according to most of the literature on the subject, it does not appear that human capital or skill-biased technological change theories are sufficient to explain much of the income of the rich and its dynamics.

Finally, a skill-intensive occupational structure may explain why, on average, people are richer in one country than in another, but it seems that this structure has no clear explanation to account for differences between the higher social strata between countries. Of course this, in part, results from the definition of rich in relative terms, as most often the rich are understood as the richest persons in a country. Undoubtedly, comparisons based on a cross-country affluence line would give better grounds to draw conclusions from the relation between the occupational structure of a country and its internal inequality but, to our knowledge, this has not been done yet.

2.2.6. Sectors and industries

Analyzing data about the wealthy class of nineteenth-century Britain, Rubinstein (1977) concludes that the largest group among great wealth-holders was neither industrialists nor bankers, but the great landowners, who were far richer than the wealthiest British businessmen. Holmes (1909), Sorokin (1925) and Watkins (1907) arrive at similar conclusions examining the nineteenth-century USA. Their argument is that diversity of industries and sectors was a characteristic of capitalist elites during and immediately after the Industrial Revolution, but behind the accumulation of fortunes there were not productive activities but realty rights and land speculation. Furthermore, Watkins notes, one should not expect the rich to belong in a single industry, as most fortunes are not derived from the productive abilities of an individual. To some extent, this remains valid today.

Recent studies have pointed out that in Canada and the USA the rich are dispersed over a broad range of sectors and industries (Broom and Shay, 2000; Fortin et al., 2012; Kaplan and Rauh, 2013; Parker et al., 2010). Most likely this is true in
many other countries, certainly with local variations. Yet, with respect to this diversity of sectors, some characteristics seem to be common among the very rich in industrialized countries.

First, finance has always been an important sector for the rich. Second, land trading and property development (real estate) was and still is an important source of fortunes. Third, fortunes are related to rents derived from monopolistic power, including, but not limited to, the monopoly created by intellectual property. Fourth, it is possible to infer an association between the sectors in which the very rich operate and State direct or indirect subsidies, or trading with governments, such as military expenditures, science and technology, telecommunications and fuels, though this has received very little direct attention by the literature.

The finance industry is an important sector for the working rich and in some countries plays a key role in the dynamics of inequality. Sorokin (1925) had already noted a disproportionate presence of bankers among the millionaires in the nineteenth century USA. More recently, Wolff (2000: 86) estimated that in 1992 about 36% of employees in the top 1% incomes of the USA were working in finance or real estate trading and that these sectors were growing in importance over the previous decades. A decade later, Kaplan and Rauh (2010) show that executives from the financial sector are twice more common in the top 0.1% than other executives. Fortin et al. (2012) identified that 10% of the top 1% incomes in Canada were working in finance and according to Godechot (2012, 2013), the finance industry doubled its presence in the top 0.1% and was responsible for half of the rise of inequality in France between 1996 and 2007 (it was fairly stable from 1975 to 1991). Of course, the importance of the finance sector for the rich goes beyond those working in it: financial wealth is extremely concentrated and its incomes are an important source of earnings for the rich in all industries.

Real estate trading has also been an important industry for the rich for a long time. The conclusions of Rubinstein (1977: 125) about the prominence real estate owners and traders over industrialists in early industrialized Britain remained true during the 1980s - 2000s in Britain, Australia, New Zealand and the USA (Canterbery and Nosari, 1985; Hazledine and Siegfried, 1997; Siegfried and Roberts, 1991; Siegfried and Round, 1994). This literature highlights that the rich do not only use real estate to accumulate more wealth, they make fortunes by actively investing
The wealthy are also commonly found in activities favored by monopolistic power, either when they belong to firms controlling a large part of a sector, such as news, media and telecommunications, or controlling key parts of economic production, such as monopolies maintained by intellectual property laws. Which specific sectors are favored by those powers vary according to the structure of production in each country. Science and technology development, for instance, is an important activity for the USA rich (Broom and Shay, 2000) and, to some extent, for those in Australia and New Zealand (Potts, 2006). At the same time, part of the literature presents a different argument, that fortunes are predominantly made at competitive industries (Hazledine and Siegfried, 1997; Siegfried and Roberts, 1991; Siegfried and Round, 1994), but this depends on how “competitive industry” is defined and has been subject to critique (Waldman, 1991).

The role of the State favoring the rich by directly or indirectly subsidizing companies or granting monopolies is yet to be subject of a detailed analysis. This, however, is a hypothesis that should not be underestimated. The high frequency of fortunes in sectors that typically receive benefits or protection from the State suggests that the relation between the State and the rich deserves more attention from researchers. This relation is not restricted to direct subsidies but also by indirect funding, such as by sponsoring scientific research, channeling military expenditures to industrial sectors, using macroeconomic policy as an insurance mechanism to the finance sector or even by simply limiting competition in strategic sectors of the economy. Not only capitalists but also workers can benefit from privileges and rents obtained by some companies that trickle down to them.

Furthermore, the literature on the subject seems to indicate that innovation or high productivity may be less important for the composition of fortunes than restrictive property rights. If correct, then another subject that deserves further investigation is the institutional settings behind these rights and their implications for the overall distribution of income and wealth within and between countries.

2.2.7. Globalization

With respect to globalization, one can ask at least two related but separate questions: ‘who are the world’s rich?” and ‘how do the rich benefit from the integration of national economies’. Because most studies about the rich is country-
specific with little attention given to the role of globalization as a determinant of the income and wealth of the rich, the answers to these questions found in the literature are, so far, very speculative.

With regard to the question of ‘who are the world’s rich?’, it is very likely that the answer is that the relatively rich in a few North American and European countries are the true global rich, much richer than the local rich of other countries. The world as a whole is more unequal than any country taken separately, as most of the global interpersonal income inequality results from between-country inequality (Firebaugh and Goesling, 2004; Firebaugh, 2000; Lakner and Milanovic, 2013; Milanovic, 2012). Also, there is mounting evidence that most cross-country variation in inequality levels can be traced back to differences in the income shares of the top 10% and the bottom 40% in each country (Cobham and Sumner, 2013; Palma, 2011). Thus, the top incomes in the rich countries are very likely to be the world’s rich. Verification of this hypothesis is a matter of measurement, but not a simple task, given the difficulties in harmonizing international data.

As countries interact and much of this interaction is controlled by economic elites, it would be surprising if the global scenario had no influence on the creation of a rich class in a country.

The second question, however, is more difficult to answer than the first one. Research on the effects on inequality of what is understood today as globalization has a long history. Marx (1996 [1867]), for example, writes extensively about how the enrichment of capitalists in England was possible due to the free trade with the colonies and resulted in the destruction of handicraft and incipient industry in these countries. In a much less celebrated but still worthy study, Watkins analyses the origins of the rich in the USA in 1892 and concludes that fortunes were accumulated by international trade and investment (Watkins, 1907).

However, more precise evaluations of how much globalization is responsible for fortunes faces a barrier of limited data. In recent times, Milanovic (2005) worked with a database composed of surveys from 95 countries, representing 90% of the world population and found that in poor countries globalization tends to favor the rich (top 10% incomes). Roine, Vlachos and Waldenström (2009) worked with a smaller set of countries, 15 high income economies and India, but used data from tax records, which allows inferences about a richer group, the top 1% incomes. Their
study did not find a country’s the lack of barriers to trade to be disproportionately beneficial to the rich in that country, but this is limited to indicators of a general level of openness in trade in linear regressions, not to the direct role of trade as a source of income for different groups. Neumayer (2004) analyses only Forbes wealthy lists from 2001 to 2003 and found that there is not a negative influence of taxation, regulation of wages, regulation of the prices of commodities or the concession of social benefits in the number of billionaires of a country. Commercial openness, however, has a positive impact on this number. Volscho and Kelly (2012) concluded that trade openness favored the top incomes in the USA.

These are studies about internal country impacts of trade openness, a proxy for globalization that does not take directly into account investment and financial transactions. Apparently no studies exist specifically concerned with how the rich in rich countries are affected by trade and financial openness of low income countries or, in other terms, how the global rich relate to the global lower classes. The truth is that a study of this type is difficult to carry out due to limitations in data availability and comparability. Two notable exceptions are Zucman (2013) who estimates that 8% of the global financial wealth is held in offshore tax heavens due to transfers from poor to rich countries, particularly the USA and those in the Eurozone, and Piketty and Zucman (2013), who found that a significant share of the domestic capital in rich countries is owned by people in other countries, and that foreign portfolios have generated large capital gains in the USA: one third of all capital gains in the USA come from cross-border portfolios, a sign that an important part of the income of part of the rich are not limited by national economies.

As a matter of fact, as it is well accepted that the levels of income in one economy depends on the levels of income in other countries – as one routinely does in growth theory – there is no reason to believe that globalization should not affect the concentration of income in the rich. Indeed, there are several studies pointing in this direction. Atkinson (2003, 2007) argues that the levels of income and wealth of the top earners in a country are related to global inequality: “The analysis so far has considered the role of top incomes in a purely national context, but it is evident that the rich, or at least the super-rich, are global players” (Atkinson, 2007: 23). A possible reason is that large companies operating internationally hold monopolistic powers and therefore are able to extract rents as a result of these powers in different countries and concentrate them in the form of capital gains, high wages or wealth
accumulation. Such a proposition deserves further evaluation, but if correct, the recent rise of top incomes in North America and Europe may also be a result from an international redistribution of income from other countries.

3. Summary

Social scientists have been interested in the determinants of affluence at the very least since the early 20th century. There is already extensive literature on the subject and it is likely to keep growing in the foreseeable future. Furthermore, the rise in top-end inequality in many countries has brought the theme into the limelight.

It is very difficult to generalize empirical results obtained over a fairly long span of time, in different countries and using different definitions of affluence. This is aggravated by the fact that local and global patterns of inequality are changing at a relatively fast pace – for example, at the same time inequality grew in North America, Europe and parts of Asia, it fell in South America. Nevertheless, there are some similar conclusions shared by many studies. First, labor earnings are an important source of income even for the rich and it is only at the very top of the distribution that capital incomes become truly dominant. This does not mean that the working rich or even the middle classes do not own capital investments, which is obviously not true. It does mean that, barring any unexpected changes, the concentration of income at the very top will likely rise in tandem with the capital share of national income in the coming decades.

Second, fortunes are not purely determined by market forces. While inheritances and inter vivos transfers are often a significant source of fortunes, there is no conclusive evidence that human capital investments and exceptional abilities are a major reason why some individuals have much higher incomes than others. Likewise, it is not clear at all that the answer lies in the occupational structure.

Finally, the literature shows that the characteristics of firms and industries play an important role. Great wealth is usually dispersed over a range of sectors and industries, but finance and real estate development seem to be particularly important industries for the rich. In spite of immense historical change, these are the very same sectors where the rich were more conspicuous at the beginning of the Industrial Revolution.
In short, it seems that affluence is strongly affected by factors that have little or no association with economic productivity. The economy is embedded in social institutions and these institutions determine who gets what from economic production, both present and past. Institutions include laws, political organizations, public policies and privileges of all sorts. For the rich, controlling them can be more important than being more economically efficient than others. In other words, the rich are more often those who have the ability of control the distribution of the economic products than those who produce much more and much better than others. That said, one should not discard ability, innovation, effort or even luck as causes of affluence; it is simply that, according to the literature we reviewed, these are not major causes of affluence.

Our review also suggests that there remain several unanswered questions. We would like, in particular, to draw attention to two interrelated areas of importance from an international perspective.

On the one hand, it is perhaps time to move on from country-specific and cross-country analyses and examine in greater detail both the role played by the global rich and the possibly heterogeneous effects of globalization on the ‘locally’ rich. We know little about how tax dodging strategies and tax havens affect inequality, or how and when economic elites in different countries might resort to liberalization or protectionism in order to maintain and enhance their relative position.

On the other hand, the role of the State and political institutions in determining the income and wealth of the rich also deserves more attention. So far, most research in this area focuses on direct taxes, which are obviously very important. Nevertheless, the State is much more than a tax collector, and it can shape top-end inequality in a myriad of ways. There remains a great deal to learn about how industrial subsidies, intellectual property laws, immigration laws, military spending, trade tariffs, labor market regulation (and so on) benefit the rich vis-à-vis the non-rich. The same applies to fiscal and monetary policy in more general terms.
4. References

Abowd JM and Kaplan DS (1999) Executive Compensation: Six Questions That Need Answering. The Journal of Economic Perspectives, 13(4), 145–168.

Albuquerque PM (1994) *Um estudo da população de altos rendimentos no Brasil nos anos recentes*. Seminários Ipea, Rio de Janeiro: Ipea.

Allen MP and Campbell JL (1994) State Revenue Extraction from Different Income Groups: Variations in Tax Progressivity in the United States, 1916 to 1986. American Sociological Review, 59(2), 169–186.

Alvaredo F (2010) The rich in Argentina over the twentieth century: 1932–2004. 1st ed. In: Atkinson AB and Piketty T (eds), *Top incomes: A global perspective*, Oxford: Oxford University Press, pp. 253–298.

Alvaredo F and Saez E (2009) Income and wealth concentration in Spain from a historical and fiscal perspective. *Journal of the European Economic Association*, 7(5), 1140–1167.

Alvaredo F, Atkinson AB, Piketty T, et al. (2013) The Top 1 Percent in International and Historical Perspective. *Journal of Economic Perspectives*, 27(3), 3–20.

Andrews D and Leigh A (2009) More inequality, less social mobility. *Applied Economics Letters*, 16(15), 1489–1492.

Atkinson AB (1971) The Distribution of Wealth and the Individual Life-Cycle. *Oxford Economic Papers*, 23(2), 239–254.

Atkinson AB (2003) Income Inequality in OECD Countries: Data and Explanations. *CESifo Economic Studies*, 49(4), 479–513.

Atkinson AB (2005a) Comparing the Distribution of Top Incomes Across Countries. *Journal of the European Economic Association*, 3(2-3), 393–401.

Atkinson AB (2005b) Top incomes in the UK over the 20th century. *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, 168(2), 325–343.

Atkinson AB (2007) Measuring top incomes: methodological issues. In: Atkinson AB and Piketty T (eds), *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries*, Oxford: Oxford University Press, pp. 18–42.

Atkinson AB (2008) Concentration among the Rich. In: Davies JB (ed.), *Personal Wealth from a Global Perspective*, Oxford University Press, pp. 64–88.

Atkinson AB (2010) Top Incomes in a Rapidly Growing Economy: Singapore. 1st ed. In: Atkinson AB and Piketty T (eds), *Top incomes: A global perspective*, Oxford: Oxford University Press, pp. 220–252.
Atkinson AB and Piketty T (eds) (2007) *Top incomes over the twentieth century: a contrast between continental european and english-speaking countries*. Oxford: Oxford university press.

Atkinson AB and Piketty T (eds) (2010) *Top incomes: A global perspective*. 1st ed. Oxford: Oxford University Press.

Atkinson AB, Piketty T and Saez E (2011) Top incomes in the long run of history. *Journal of Economic Literature*, 49, 3–71.

Bach S, Corneo G and Steiner V (2009) From Bottom to Top: The Entire Income Distribution in Germany, 1992–2003. *Review of Income and Wealth*, 55(2), 303–330.

Bakija J, Cole A and Heim BT (2010) *Jobs and income growth of top earners and the causes of changing income inequality: Evidence from US tax return data*. Department of Economics Working Papers, Williamstown: Department of Economics, Williams College, Available from: http://EconPapers.repec.org/RePEc:wil:wileco:2010-22.

Baranchuk N, MacDonald G and Yang J (2011) The Economics of Super Managers. *Review of Financial Studies*, 24(10), 3321–3368.

Bargain O, Dolls M, Immervoll H, et al. (2013) *Partisan Tax Policy and Income Inequality in the U.S., 1979-2007*. IZA Discussion Paper, Institute for the Study of Labor (IZA), Available from: http://econpapers.repec.org/paper/izaizadps/dp7190.htm (accessed 10 April 2014).

Bartels L (2008) Unequal democracy: the political economy of the new gilded age. New York: Princeton: Russell Sage Foundation; Princeton University Press.

Bebchuk L and Fried J (2005) Pay Without Performance: Overview of the Issues. *Journal of Applied Corporate Finance*, 17(4), 8–23.

Bebchuk L and Grinstein Y (2005) The growth of executive pay. *Oxford review of economic policy*, 21(2), 283–303.

Belliveau MA, O'reilly CA and Wade JB (1996) Social capital at the top: Effects of social similarity and status on CEO compensation. *Academy of Management Journal*, 39(6), 1568–1593.

Bertrand M and Mullainathan S (2001) Are CEOs Rewarded for Luck? The Ones Without Principals Are. *The Quarterly Journal of Economics*, 116(3), 901–932.

Bivens J and Mishel L (2013) The Pay of Corporate Executives and Financial Professionals as Evidence of Rents in Top 1 Percent Incomes. *Journal of Economic Perspectives*, 27(3), 57–78.
Bonica A, McCarty N, Poole KT, et al. (2013) Why Hasn’t Democracy Slowed Rising Inequality? *Journal of Economic Perspectives*, 27(3), 103–124.

Breen R and Jonsson JO (2005) Inequality of opportunity in comparative perspective: Recent research on educational attainment and social mobility. *Annual review of sociology*, 31, 223–243.

Broom L and Shay W (2000) *Discontinuities in the Distribution of Great Wealth: Sectoral Forces Old and New*. Economics Working Paper Archive, Levy Economics Institute, The, Available from: http://econpapers.repec.org/paper/levwrkpap/wp_5f308.htm (accessed 18 February 2014).

Brown RL and Prus SG (2006) Income Inequality over the Later-Life Course: a Comparative Analysis of Seven OECD Countries. *Annals of Actuarial Science*, 1(02), 307–317.

Canterbery ER and Nosari EJ (1985) The Forbes Four Hundred: The Determinants of Super-Wealth. *Southern Economic Journal*, 51(4), 1073–1083.

Carroll CD (2000) *Portfolios of the Rich*. NBER Working Paper, Working Paper, Cambridge, MA: National bureau of economic research.

Cobham A and Sumner A (2013) *Is it all about the tails? The Palma measure of income inequality*. Center for Global Development Working Paper, Working Washington, D.C.: Center for Global Development.

Coronado JL, Fullerton D and Glass T (2002) Long-Run Effects of Social Security Reform Proposals on Lifetime Progressivity. In: *The distributional aspects of social security and social security reform*, University of Chicago Press, pp. 149–206.

Coronado JL, Fullerton D and Glass T (2011) The Progressivity of Social Security. *The B.E. Journal of Economic Analysis & Policy*, 11(1), Available from: http://works.bepress.com/don_fullerton/11 (accessed 19 January 2013).

Davies JB (2008) *Personal wealth from a global perspective*. Oxford: Oxford University Press.

Davies JB and Shorrocks AF (2000) The distribution of wealth. 1st ed. In: Atkinson AB and Bourguignon F (eds), *Handbook of income distribution*, Amsterdam: Elsevier, pp. 605–675.

Davies JB, Sandström S, Shorrocks A, et al. (2011) The Level and Distribution of Global Household Wealth. *The Economic Journal*, 121(551), 223–254.

DiPrete TA (2007) What Has Sociology to Contribute to the Study of Inequality Trends? A Historical and Comparative Perspective. *American Behavioral Scientist*, 50(5), 603–618.
DiPrete TA, Eirich GM and Pittinsky M (2010) Compensation Benchmarking, Leapfrogs, and the Surge in Executive Pay. *American Journal of Sociology, 115*(6), 1671–1712.

Dynan KE, Skinner J and Zeldes SP (2004) Do the rich save more? *Journal of Political Economy, 112*(2), 397–444.

Erikson R and Goldthorpe JH (2002) Intergenerational Inequality: A Sociological Perspective. *Journal of Economic Perspectives, 16*(3), 31–44.

Esquivel G (2011) The Dynamics of Income Inequality in Mexico since NAFTA. *Economía, 12*(1), 155–179.

Feenberg DR and Poterba JM (1993) Income inequality and the incomes of very high-income taxpayers: evidence from tax returns. In: *Tax Policy and the Economy, Volume 7*, MIT Press, pp. 145–177.

Feenberg DR and Poterba JM (2000) The Income and Tax Share of Very High-Income Households, 1960-1995. *The American Economic Review, 90*(2), 264–270.

Ferreira MC (2001) Permeable, ma non troppo?: Social mobility in elite sectors, Brazil - 1996. *Revista Brasileira de Ciências Sociais, 16*(47), 141–160.

Finnie R and Irvine I (2006) Mobility and gender at the top tail of the earnings distribution. *Economic and Social Review, 37*(2), 149.

Firebaugh G (2000) The Trend in Between-Nation Income Inequality. *Annual Review of Sociology, 26*(1), 323–339.

Firebaugh G and Goesling B (2004) Accounting for the Recent Decline in Global Income Inequality. *American Journal of Sociology, 110*(2), 283–312.

Fortin N, Green DA, Lemieux T, et al. (2012) Canadian inequality: recent developments and policy options. *Canadian Public Policy, 38*(2), 121–145.

Friedman J and Hofman AA (2013) Inequality and the Top of the Income Distribution in Chile 1990-2012: Questioning the Consensus. *Available at SSRN 2242259*.

Frydman C and Saks RE (2010) Executive Compensation: A New View from a Long-Term Perspective, 1936–2005. *Review of Financial Studies, 23*(5), 2099–2138.

Fuest C, Niehues J and Peichl A (2010) The Redistributive Effects of Tax Benefit Systems in the Enlarged EU. *Public Finance Review, 38*(4), 473–500.

Gabaix X and Landier A (2008) Why has CEO Pay Increased So Much? *The Quarterly Journal of Economics, 123*(1), 49–100.

Gilding M (1999) Superwealth in Australia: entrepreneurs, accumulation and the capitalist class. *Journal of Sociology, 35*(2), 169–182.
Gilens M (2012) *Affluence and influence: economic inequality and political power in America*. Princeton, N.J : New York: Princeton University Press; Russell Sage Foundation.

Godechot O (2006) Hold-up en finance. *Revue française de sociologie*, 47(2), 341–371.

Godechot O (2009) ‘Hold-up’ in finance: The conditions of possibility for high bonuses in the financial industry. *Revue française de sociologie*, 49(5), 95–123.

Godechot O (2012) Is finance responsible for the rise in wage inequality in France? *Socio-Economic Review*, 10(3), 447–470.

Godechot O (2013) Financiarisation et fractures socio-spatiales. *L'Année sociologique*, 63(1), 17–50.

Goolsbee A (2000a) It’s Not About the Money: Why Natural Experiments Don’t Work on the Rich. 1st ed. In: Slemrod J (ed.), *Does Atlas Shrug?: The Economic Consequences of Taxing the Rich*, Cambridge, MA: Harvard University Press, pp. 141–164.

Goolsbee A (2000b) What Happens When You Tax the Rich? Evidence from Executive Compensation. *The Journal of Political Economy*, 108(2), 352–378.

Goudswaard K and Caminada K (2010) The redistributive effect of public and private social programmes: A cross-country empirical analysis. *International Social Security Review*, 63(1), 1–19.

Hambrick DC and Finkelstein S (1995) The effects of ownership structure on conditions at the top: The case of CEO pay raises. *Strategic Management Journal*, 16(3), 175–193.

Harris D, Morck R and Slemrod JB (1993) *Income shifting in US multinational corporations*. Chicago: University of Chicago Press.

Hazledine T and Siegfried J (1997) How did the wealthiest New Zealanders get so rich? *New Zealand Economic Papers*, 31(1), 35–47.

Hoffmann R (2003) Inequality in Brazil: the contribution of pensions. *Revista Brasileira de Economia*, 57(4), 755–773.

Holmes GK (1909) How Far Should Family Wealth Be Encouraged and Conserved? *American Journal of Sociology*, 14(6), 823–836.

Hungerford T (2013) *Changes in Income Inequality Among U.S. Tax Filers between 1991 and 2006: The Role of Wages, Capital Income, and Taxes*. SSRN Scholarly Paper, Rochester, NY: Social Science Research Network, Available from: http://papers.ssrn.com/abstract=2207372 (accessed 20 May 2013).
Hurd MD and Mundaca BG (1989) The importance of gifts and inheritances among the affluent. In: Lipsey RE and Tice HS (eds), *The measurement of saving, investment, and wealth*, Chicago: University of Chicago Press, pp. 737–764.

Inhaber H and Carroll SL (1992) *How rich is too rich? Income and wealth in America*. 1st ed. New York: Praeger.

Kaplan SN and Rauh J (2010) Wall Street and Main Street: What contributes to the rise in the highest incomes? *Review of Financial Studies*, 23(3), 1004–1050.

Kaplan SN and Rauh J (2013) It’s the Market: The Broad-Based Rise in the Return to Top Talent. *Journal of Economic Perspectives*, 27(3), 35–56.

Katona G and Lansing JB (1964) *The Wealth of the Wealthy*. *The Review of Economics and Statistics*, 46(1), 1–13.

Keister LA (2014) The One Percent. *Annual Review of Sociology*, 40(1), Available from: http://www.annualreviews.org/doi/abs/10.1146/annurev-soc-070513-075314 (accessed 30 April 2014).

Keister LA and Lee HY (2014) The One Percent Top Incomes and Wealth in Sociological Research. *Social Currents*, 1(1), 13–24.

Keister LA and Moller S (2000) Wealth inequality in the United States. *Annual Review of Sociology*, 26(1), 63–81.

Kennickell AB (2009) Getting to the top: reaching wealthy respondents in the SCF. In: *Proceedings of the Survey Research Methods Section, American Statistical Association (2009)*, Washington DC: American Statistical Association, pp. 2055–2069.

Kenworthy L (2007) Inequality and sociology. *American Behavioral Scientist*, 50(5), 584–602.

Kim J, Kogut B and Yang J-S (2013) *Executive Compensation, Fat Cats and Best Athletes*. SSRN Scholarly Paper, Rochester, NY: Social Science Research Network, Available from: http://papers.ssrn.com/abstract=1948531.

Kopczuk W and Saez E (2004) Top Wealth Shares in the United States, 1916-2000: Evidence from Estate Tax Returns. *National Tax Journal*, 57(2), 445–487.

Kopczuk W, Saez E and Song J (2010) Earnings Inequality and Mobility in the United States: Evidence from Social Security Data Since 1937. *The Quarterly Journal of Economics*, 125(1), 91–128.

Kuznets S (1955) Economic growth and income inequality. *The American economic review*, 45(1), 1–28.

Lakner C and Milanovic B (2013) *Global income distribution: from the fall of the Berlin Wall to the Great Recession*. Washington D. C.: World Bank.
Lampman RJ (1959) Changes in the Share of Wealth Held by Top Wealth-Holders, 1922-1956. *The Review of Economics and Statistics*, 41(4), 379–392.

Landais C (2008) Top Incomes in France: booming inequalities? Paris School of Economics, Mimeo, Paris.

Lazar H and Stoyko P (1998) The future of the Welfare State. *International Social Security Review*, 51(3), 3–36.

Leigh A and Van der Eng P (2009) Inequality in Indonesia: What can we learn from top incomes? *Journal of Public Economics*, 93(1), 209–212.

Lundberg F (1969) *The rich and the super-rich*. New York: Bantam Books New York.

Marx K and Engels F (1996) *Capital: A Critique of Political Economy*. Marx and Engels Collected Works, London: Lawrence & Wishart.

Medeiros M (2005) *O que faz os ricos ricos: o outro lado da desigualdade brasileira*. São Paulo: Editora Hucitec: ANPOCS.

Milanovic B (2005) Can We Discern the Effect of Globalization on Income Distribution? Evidence from Household Surveys. *The World Bank Economic Review*, 19(1), 21–44.

Milanovic B (2012) Global Inequality: From Class to Location, from Proletarians to Migrants. *Global Policy*, 3(2), 125–134.

Myles J (2003) Where have all the sociologists gone? Explaining income inequality. *The Canadian Journal of Sociology*, 28(4), 551–559.

Neumayer E (2004) The super-rich in global perspective: a quantitative analysis of the Forbes list of billionaires. *Applied Economics Letters*, 11(13), 793–796.

Ohlsson H, Roine J and Waldenström D (2006) *Long-run changes in the concentration of wealth: An overview of recent findings*. Research Paper, UNU-WIDER, United Nations University (UNU), Helsinki: UNU-WIDER, Available from: http://hdl.handle.net/10419/63366.

Palma JG (2011) Homogeneous Middles vs. Heterogeneous Tails, and the End of the 'Inverted-U': It's All About the Share of the Rich. *Development and Change*, 42(1), 87–153.

Palme J (2006) Welfare states and inequality: Institutional designs and distributive outcome. *Research in Social Stratification and Mobility*, 24(4), 387–403.

Parker JA, Vissing-Jørgensen A, Blank RM, et al. (2010) The Increase in Income Cyclicality of High-Income Households and Its Relation to the Rise in Top Income Shares [with Comments and Discussion]. *Brookings Papers on Economic Activity*, 1–70.
Pearson K (1904) *On the theory of contingency and its relation to association and normal correlation; On the general theory of skew correlation and non-linear regression*. London: Dulau and Co.

Perrin E (1904) On the Contingency Between Occupation in the Case of Fathers and Sons. *Biometrika*, 3(4), 467–469.

Philippon T and Reshef A (2012) Wages and Human Capital in the U.S. Finance Industry: 1909-2006. *The Quarterly Journal of Economics*, 127(4), 1551–1609.

Piketty T (2000) Theories of persistent inequality and intergenerational mobility. 1st ed. In: Atkinson AB and Bourguignon F (eds), *Handbook of income distribution*, Oxford; New York: Elsevier, pp. 429–476.

Piketty T (2003) Income Inequality in France, 1901–1998. *Journal of Political Economy*, 111(5), 1004–1042.

Piketty T (2004) *L’économie des inégalités*. 5th ed. Paris: La Découverte.

Piketty T (2007) Top incomes over the twentieth century: A summary of main findings. 1st ed. In: Atkinson AB and Piketty T (eds), *Top Incomes over the Twentieth Century: A Contrast between Continental European and English-Speaking Countries*, Oxford: Oxford University Press, pp. 1–17.

Piketty T (2013) *Le capital au XXIe siècle*. 1st ed. Paris: Éditions du Seuil.

Piketty T (2014) *Capital in the twenty-first century*. 1st ed. Boston: Harvard University Press.

Piketty T and Saez E (2003) Income Inequality in the United States, 1913–1998. *The Quarterly Journal of Economics*, 118(1), 1–41.

Piketty T and Saez E (2006) The Evolution of Top Incomes: A Historical and International Perspective. *American Economic Review American Economic Review*, 96(2), 200–205.

Piketty T and Saez E (2013) Top Incomes and the Great Recession: Recent Evolutions and Policy Implications. *IMF Economic Review*, Available from: http://www.palgrave-journals.com/imfer/journal/vaop/ncurrent/abs/imfer201314a.html (accessed 3 September 2013).

Piketty T and Zucman G (2013) Capital is Back: Wealth-Income Ratios in Rich Countries, 1700-2010. PSE Working Paper, Paris.

Piketty T, Postel-Vinay G and Rosenthal J-L (2006) Wealth Concentration in a Developing Economy: Paris and France, 1807-1994. *The American Economic Review*, 96(1), 236–256.
Piketty T, Postel-Vinay G and Rosenthal J-L (2014) Inherited vs self-made wealth: Theory & evidence from a rentier society (Paris 1872–1927). *Explorations in Economic History*, 51, 21–40.

Potts JD (2006) How creative are the super-rich? *Agenda*, 13(4), 339–350.

Riihela M (2009) Essays on income inequality, poverty and the evolution of top income shares. VATT 52/2009, Helsinki: VATT.

Roine J and Waldenström D (2008) The evolution of top incomes in an egalitarian society: Sweden, 1903-2004. *Journal of Public Economics*, 92(1-2), 366–387.

Roine J, Vlachos J and Waldenström D (2009) The long-run determinants of inequality: What can we learn from top income data? *Journal of Public Economics*, 93(7–8), 974–988.

Rubinstein WD (1977) Wealth, Elites and the Class Structure of Modern Britain. *Past & Present*, 76(1), 99–126.

Russell T (1979) The Share of Top Wealth Holders: The Life Cycle, Inheritance and Efficient Markets. *Annales de l’inséé*, (33/34), 159–180.

Saez E (2004) Reported incomes and marginal tax rates, 1960-2000: evidence and policy implications. *Tax Policy and the Economy*, 18(1), 117–174.

Saez E and Veall MR (2005) The Evolution of High Incomes in Northern America: Lessons from Canadian Evidence. *The American Economic Review*, 95(3), 831–849.

Saez E and Zucman G (2014) The Distribution of US Wealth, Capital Income and Returns since 1913. UCB IRLE Seminar, Berkeley, Available from: http://gabriel-zucman.eu/files/SaezZucman2014Slides.pdf.

Sanhueza C and Mayer R (2011) Top Incomes in Chile using 50 years of household surveys: 1957-2007. *Estudios de Economía*, 38(1), 169.

Semyonov M and Lewin-Epstein N (2013) Ways to Richness: Determination of Household Wealth in 16 Countries. *European Sociological Review*, 29(6), 1134–1148.

Siegfried JJ and Roberts A (1991) How did the wealthiest Britons get so rich? *Review of Industrial Organization*, 6(1), 19–32.

Siegfried JJ and Round DK (1994) How did the wealthiest Australians get so rich? *Review of Income and Wealth*, 40(2), 191–204.

Slemrod J (1994) On the high-income Laffer curve. 1st ed. In: Slemrod JB (ed.), *Tax Progressivity and Income Equality*, Cambridge, MA: Cambridge University Press, pp. 177–210.

Soares S, Osorio RG, Soares FV, et al. (2009) Conditional Cash Transfers in Brazil, Chile and Mexico: Impacts upon Inequality. *Estudios Económicos*, n. ex, 207–224.
The Rich, the Affluent and the Top Incomes

Soltow L (1968) Long-Run Changes in British Income Inequality. *The Economic History Review*, 21(1), 17–29.

Sorokin P (1925) American Millionaires and Multi-Millionaires: A Comparative Statistical Study. *Journal of Social Forces*, 3(4), 627–640.

Spilerman S (2000) Wealth and Stratification Processes. *Annual Review of Sociology*, 26(1), 497–524.

Stilwell F and Jordan K (2007) *Who gets what?: analysing economic inequality in Australia*. Cambridge University Press.

Tickamyer AR (1981) Wealth and Power: A Comparison of Men and Women in the Property Elite. *Social Forces*, 60(2), 463–481.

Torche F (2005) Unequal but fluid: social mobility in Chile in comparative perspective. *American Sociological Review*, 70(3), 422–450.

Torche F and Spilerman S (2006) Parental wealth effects on living standards and asset holdings: results from Chile. In: Wolff EN (ed.), *International Perspectives on Household Wealth*, Cheltenham: Edward Elgar, pp. 329–361.

Torche F and Spilerman S (2008) Household wealth in Latin America. In: Davies JB (ed.), *Personal Wealth from a Global Perspective*, Oxford: Oxford University Press.

Torche F and Spilerman S (2009) Intergenerational influences of wealth in Mexico. *Latin American Research Review*, 44(3), 75–101.

Trostel P, Walker I and Woolley P (2002) Estimates of the economic return to schooling for 28 countries. *Labour Economics*, 9(1), 1–16.

USA, Commission on Industrial Relations and Walsh FP (1915) *Final report of the Commission on Industrial Relations*. Washington, D.C.: Barnard & Miller Print. Available from: http://www.gale.com/ModernLaw/ (accessed 9 October 2013).

Veblen T (2007) *The theory of the leisure class*. Oxford; New York: Oxford University Press.

Vélez JL (2012) Income and Wealth at the Top in Colombia: An Exploration of Tax Records 1993–2010. Public Policy and Development Master Dissertation, Paris: Paris School of Economics. Available from: http://piketty.pse.ens.fr/files/LondonoVelez2012MasterThesis.pdf.

Villette M and Vuillermot C (2005) *Portrait de l’homme d’affaires en prédateur*. Paris: Découverte.

Villette M and Vuillermot C (2009) *From predators to icons: Exposing the myth of the business hero*. Cornell University Press.
Volscho TW and Kelly NJ (2012) The Rise of the Super-Rich Power Resources, Taxes, Financial Markets, and the Dynamics of the Top 1 Percent, 1949 to 2008. American Sociological Review, 77(5), 679–699.

Wade JB, O'Reilly CA and Pollock TG (2006) Overpaid CEOs and underpaid managers: Fairness and executive compensation. Organization Science, 17(5), 527–544.

Waldman DE (1991) How did the wealthiest Britons get so rich?: Comment. Review of Industrial Organization, 6(3), 291–294.

Watkins GP (1907) The growth of large fortunes. Publications of the American Economic Association, 8(4), 1–170.

Wolff EN (1996) International Comparisons of Wealth Inequality. Review of Income and Wealth, 42(4), 433–451.

Wolff EN (1998) Recent Trends in the Size Distribution of Household Wealth. The Journal of Economic Perspectives, 12(3), 131–150.

Wolff EN (2000) Who are the rich? A demographic profile of high-income and high-wealth Americans. 1st ed. In: Slemrod J (ed.), Does Atlas Shrug? The Economic Consequences of Taxing the Rich, Cambridge, MA: Harvard University Press, pp. 74–113.

Wolff EN (2002) Inheritances and Wealth Inequality, 1989-1998. The American Economic Review, 92(2), 260–264.

Wolff EN (2006) Changes in household wealth in the 1980s and 1990s in the United States. In: Wolff EN (ed.), International Perspectives on Household Wealth, Cheltenham: Edward Elgar Publishing, pp. 107–150.

Wolff EN and Zacharias A (2009) Household wealth and the measurement of economic well-being in the United States. The Journal of Economic Inequality, 7(2), 83–115.

Wolff EN and Zacharias A (2013) Class structure and economic inequality. Cambridge journal of economics, 37(6), 1381–1406.

Wright EO (2005) Foundations of a neo-Marxist class analysis. In: Wright EO (ed.), Approaches to class analysis, Cambridge: Cambridge University Press, pp. 4–30.

Zucman G (2013) The Missing Wealth of Nations: Are Europe and the US net Debtors or net Creditors? The Quarterly Journal of Economics, 128(3), 1321–1364.
The Rich, the Affluent and the Top Incomes