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Economic Elites, Investments, and Income Inequality

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Stratifaction research documents that income inequality is on the rise. Common explanations include changes in technology, demography, and labor market institutions. This study documents an additional driver of inequality that has been critical to the concentration of income among elites: income from investments. As they have turned to their investment portfolios for income, economic elites have become less reliant on the returns to labor. This finding indicates that the current debate over elite incomes, which tends to focus on the rise of “the working rich,” needs to be expanded to include the role of income-producing wealth. Additionally, such changes have left a dramatic imprint on the entire income distribution, with investment income contributing to a growing share of overall income inequality. While family structure, labor markets, and technological change remain important topics in the study of income inequality, the findings presented here underscore the additional importance of wealth and property ownership.

Stratification research documents that income inequality is on the rise. Common explanations include technology (Autor, Levy, and Murnane 2003), demographics (Esping-Andersen 2007), changes in labor market institutions (Fortin and Lemieux 1997), and globalization (Alderson and Nielsen 2002; Sassen 1990). Because rising inequality is essentially a story about winners and losers, accounts often sort individuals or households into one of these two categories, and in doing so attempt to identify the underlying causes. Relative beneficiaries in recent years have been variously identified as college graduates (Gottschalk 1997), workers engaged in abstract non-routine labor (Autor, Katz, and Kearney 2008), married couples (McCall and Percheski 2010), corporate executives and other elite professionals (Frank and Cook 1996), and high-income recipients of tax cuts (Volscho and Kelly 2012). Although these groupings have considerable overlap, each categorization suggests a different factor as operative, from technology to family structure to public policy.

This study builds on prior income inequality research by highlighting an important additional group of economic winners: wealthy investors. Investors are households that purchase assets with the hope that they will yield income or rise in value, generating investment income. Recent political-economic developments,

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including changes in monetary policy (Epstein and Jayadev 2005), corporate reorganization (Fligstein 2001), and financial deregulation (Krippner 2011), have tilted the balance of economic power toward investors. Yet these benefits have not flowed evenly to a broad “investor class” of affluent and middle-class savers. Wealth ownership, particularly ownership of income-producing assets, remains highly unequal. Instead, investment income gains have largely accrued to economic elites, who have turned to their investment portfolios for income growth.

By analyzing the role of investment income in the income distribution, this study further develops the emerging literature on economic elites while integrating it into the broader income inequality debate. Piketty and Saez (2003) document a dramatic shift in income shares to the top one percent in recent decades, although the dynamics behind this shift are still unclear. Some theorists emphasize the importance of winner-take-all mechanisms in labor markets for corporate executives or other professionals (Frank and Cook 1996; Khurana 2002), or how elite-friendly politics skews market outcomes (Bartels 2008). Others focus on financialization and the large paychecks many financial workers now command (Philippon and Reshef 2009; Tomaskovic-Devey and Lin 2011). While these studies are important contributions to the topic of income elites, two important questions remain unanswered. First, to what extent is income concentration at the top a function of non-wage income growth, particularly investment gains? Second, how has investment income growth at the top changed the overall contours of income inequality? The findings presented here indicate that investment gains are the central driver of income concentration at the top and an increasingly important contributor to overall inequality levels. In the era of financialization, investments have come to occupy a major role in the American stratification system.

Income Inequality

The returns to labor play an essential empirical and theoretical role within contemporary inequality research. This makes sense, because most households depend on wages for the majority of their income. Yet wages and labor market developments cannot fully explain the recent concentration of income among the extremely affluent. The following sections review the current inequality debate with a focus on elite incomes, making the case that a careful study of investment income can move elite income research forward while enriching the mainstream inequality literature.

Facts and Explanations

After declining for most of the 20th century, earnings inequality began to rise in the late 1970s and early 1980s (Neckerman and Torche 2007). During the 1980s and the first half of the 1990s, real income declined for the bottom half of workers while increasing for those in the top decile (Morris and Western 1999), and the 90/10 ratio of weekly earnings continued this upward trend through the 1990s and the first half of the 2000s (Autor, Katz, and Kearney 2008). This was

partly a function of the polarized nature of jobs growth in the 1990s, which was concentrated in the extremes of the distribution rather than the middle (Wright and Dwyer 2003). The trend in total income inequality among households follows a broadly similar path as that for wages among workers (Davis and Cobb 2010, 45).

Some explanations for this loose set of empirical facts focus on rising wage differentials between different groups of workers. The Skill-Biased Technological Change (SBTC) hypothesis states that the introduction of computer technology increased the productivity and wages of many skilled workers while those engaged in routine work fell behind (Autor, Levy, and Murnane 2003). Critics of SBTC point to the fact that the timing of inequality growth does not directly correspond with advances in computer technology (Card and DiNardo 2002) and that organizational factors are important moderators of technology effects (Fernandez 2001). Instead, sociologists and institutional economists skeptical of SBTC explain the rise of inequality as a result of institutional changes. Some highlight the loss of union power and the falling minimum wage as a key driver of earnings dispersion (Fortin and Lemieux 1997), while others focus on declining employment concentration (Davis and Cobb 2010) as internal labor markets shrank and fewer middle-income jobs became available (Hollister 2004). Mouw and Kalleberg (2010) provide an additional perspective that emphasizes the growing polarization between occupations, with a few professional and clerical occupations contributing disproportionately to this trend. Possible mechanisms generating this result include the adoption of merit-based pay (Hanley 2011), deindustrialization (Moller, Alderson, and Nielsen 2009), and corporate restructurings favorable to managers (Goldstein 2012). Globalization scholars point to the structural weakening of workers' bargaining positions in the developed world (Sassen 1990), with Alderson and Nielsen (2002) confirming that within-country increases in inequality over time are indeed positively associated with direct investment outflows and imports from the Global South.

An alternative research approach takes the household rather than the worker as the theoretical unit of analysis, studying the interaction of labor market dynamics with demographic or political developments. Demographically oriented accounts emphasize how changes in household structure, including the decline of dual-parent households, increased female workforce participation, and earnings homogamy among married couples, work to mitigate or exacerbate inequality at the individual level (McCall and Percheski 2010). These various trends may operate at cross-purposes, with assortative mating increasing and female workforce participation decreasing household inequality (Esping-Andersen 2007; Moller, Alderson, and Nielsen 2009). Western, Bloome, and Percheski (2008) find evidence for this, using CPS data to show that the rise in educational inequality and single-parent households was largely offset by rising educational attainment and women's employment. Politically oriented accounts focus on how political mobilization shapes post-tax and transfer income. For example, Bradley et al. (2003) document that left-party governance and union density are critical factors in determining the degree to which the state is redistributive.

The Incomes of Elites

A related but largely separate literature focuses on the incomes of economic elites, particularly the shift in income shares from the bottom eighty percent to the top one percent since the early 1980s (Piketty and Saez 2003). Frank and Cook (1996) argue that such income concentration is due to the expansion of market forces and mass communications technology, giving rise to winner-take-all labor markets that generate disproportionate gains for workers at the top of their fields. This phenomenon of “the working rich” (Piketty and Saez 2006, 204) extends to a variety of occupations, including elite professionals such as doctors and lawyers, top managers, star athletes, and entertainers. Other scholars focus on skyrocketing executive compensation, propelled by compensation benchmarking (DiPrete, Eirich, and Pittinsky 2010) and weak corporate boards (Khurana 2002).

Students of politics emphasize that winner-take-all economic arrangements can also result from broader political conditions (Hacker and Pierson 2010). For example, Volscho and Kelly (2012) document that top-percentile income share is highly sensitive to the partisan composition of Congress, tax progressivity, asset prices, and union density. Yet while a growing consensus points to politics as a determinant of market outcomes, the exact contours of elite incomes require further investigation. When asset prices rise, they can provide financial workers with opportunities to capture rent (Tomaskovic-Devey and Lin 2011), or increase compensation for executives whose pay is tied to their company’s stock price (McCall and Percheski 2010). How rising asset prices or the other processes detailed by Volscho and Kelly (2012) relate more generally to households that own income-producing investments remains an open question.

Kaplan and Rauh (2010) add greater empirical precision to the topic of elite income dynamics by gathering data on executive compensation from public non-financial companies, financial firms such as investment banks and hedge funds, lawyers, and professional athletes. Taken together, these groups occupy between 15 and 26.5 percent of the individuals within the top 0.1 percent of adjusted gross income (AGI). Notably, they estimate that CEOs and other top executives at non-financial firms comprise no more than 6.4 percent of the very top income brackets, and that financiers occupy a somewhat larger share. This result is surprisingly small given the prominence of these groups in the public mind, revealing that we still do not know much about top-income households or the sources of their affluence. The rest of this study argues that investment income growth is a key piece to this income concentration puzzle, with important ramifications for the inequality landscape.

Investments and Income Inequality

Wealth

Classical stratification theory holds that property rights are central to understanding inequality (Carruthers and Ariovich 2004). Although the field of social stratification has evolved to focus primarily on income, the growing

availability of high-quality data has revitalized research on wealth (Keister 2000; Wolff 2002). Whereas income is typically measured as a flow over time, such as annualized income, wealth researchers tend to conceptualize wealth as a stock of resources and use metrics such as net worth (Keister 2008; Oliver and Shapiro 1995). More recently, scholars have begun to question the strict conceptual distinction between wealth and income, arguing for a more holistic construct of economic well-being (Spilerman 2000). This study is a nod to the second approach by emphasizing how wealth can serve as a direct determinant of income through the ownership of income-producing assets (Smeeding and Thompson 2010). While social scientists have long known that property rights can generate powerful income claims (Korpi 1983), political economists and wealth scholars have shown the greatest interest in investors and investments as research topics. The following sections revisit these literatures and adapt them to the current income inequality debate.

Investors

Households that derive some portion of their income from wealth are investors. This conceptualization differs from capitalists, a more commonly used term to indicate membership in a propertied class, in the following ways: 1) the universe of investments encompasses any sort of asset that can generate income; and 2) households can be investors and workers at the same time. Each of these differences will be elaborated in turn.

First, investors are interested in owning income-producing wealth, which can include land, slaves, loans, securities, or other forms of property depending on the historical context (Weber 1978, 303).¹ This emphasis on property as an income source is different from a Marxist approach to class because it makes the distribution of investment income among households rather than production relations the focal point for analysis (Wright 1979). Many income-producing assets that investors commonly own, such as government debt, commodity futures contracts, undeveloped land, and certificates of deposit, may have little to do with active control over private-sector production (Wright and Perrone 1977). Second, the investor concept focuses researcher attention on the composition of a household's income portfolio rather than its position within an economic organization. Because households can obtain income from multiple sources at the same time, many are both workers and investors. As such, households simultaneously occupy different positions within a variety of markets, including those for labor, property, and credit (Carruthers and Kim 2011). This distinction is important when studying elites, because many very-high-income households derive significant income from both their labor and investments and thus do not fit into a neat worker-capitalist dichotomy.

The Rise of Investors

Although investors are prominent within all capitalist social orders, the importance of income from investments within the American stratification system has dramatically increased in recent decades. The key causes of this shift are

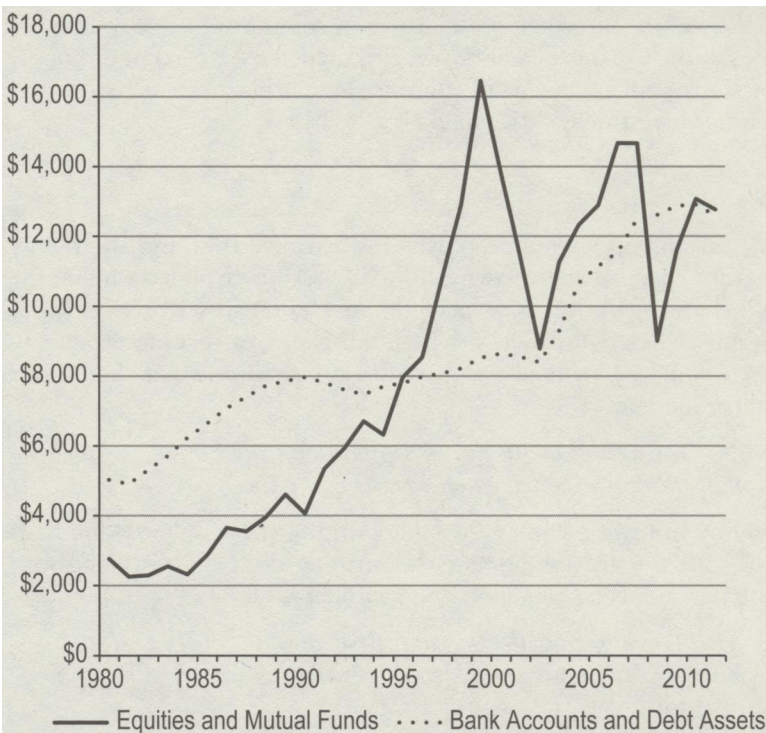
the creation of an investor-friendly macroeconomic environment and corporate restructuring, partly in response to accelerating inflation and the deterioration of financial markets during the 1970s. Rising interest rates resulted in capital losses for bondholders, because existing lower-yielding issues had to be sold at a discount to compete with their newer, higher-yielding cousins. The stock market experienced several downturns and failed to register real gains across the decade. Even investors in very conservative instruments such as interest-bearing bank accounts found that interest rate regulation combined with inflation meant that their deposits lost value over time (Krippner 2011).

A series of macroeconomic policy changes beginning in the late 1970s transformed the investment climate, creating an environment especially favorable for investors. In an effort to shift responsibility for economic stagnation from the political sphere to markets, policymakers began to deregulate interest rates and credit. This sparked a decades-long credit boom during which households, businesses, and government took on increasing levels of debt, providing investors with a growing menu of debt-based investment opportunities (Krippner 2011). Households devoted a growing percentage of monthly income to debt service (Leicht and Fitzgerald 2007), and these financial flows went in part to other households that owned financial companies (Tomaskovic-Devey and Lin 2011) or directly held debt assets. As financial deregulation proceeded, the Federal Reserve further protected investors by focusing on minimizing inflation rather than maintaining full employment. Interest rates were raised to new highs in 1981, with the goal of wringing out inflationary tendencies by inducing a sharp recession. Interest rates subsequently fell as debt instruments proliferated, ushering in an extended period of high returns for lenders and bondholders (Epstein and Jayadev 2005).

As the investment climate improved, corporate America underwent a period of restructuring beginning in the early 1980s that further empowered investors. Large conglomerates came under attack, with critics arguing that managers engaged in inefficient empire-building while ignoring the bottom line (Jensen and Meckling 1976). The Regan administration looked favorably on such critiques, loosening antitrust and corporate governance regulations and unleashing a period of mergers, divestitures, and hostile takeovers (Fligstein 2001). To reinforce managerial devotion to maximizing shareholder value, executive compensation was increasingly tied to a company's stock price (Khurana 2002). Managers faced growing pressure from powerful investment professionals (Useem 1996), who pushed for reduced workforces and minimal investment in tangible assets (Davis 2009). Mass layoffs and downsizings became common, and the US economy decentralized (Davis and Cobb 2010). Rather than hire new workers or expand production, many firms took on greater levels of debt (Aglietta and Breton 2001) or monetized assets to increase returns on equity. This simultaneously minimized the amount of capital tied up in operations (Baud and Durand 2012) and allowed for higher investor payoffs via dividends or share buybacks. Similarly, companies increasingly turned to financial activity rather than production to realize profit (Krippner 2005), increasing the bargaining power of elite workers and owners as capital's share of income rose (Kristal 2010; Lin and Tomaskovic-Devey 2013).

Figure 1 documents how the economic rise of investors corresponded with the growth of household financial assets. While financial investments do not include all possible investment assets, they constitute a major portion of income-producing household wealth (Campbell 2006) and can serve as a rough gauge of investor returns over time. Financial investments are divided into two categories: credit assets² and equity assets.³ As the stock market rose throughout the 1990s and culminated in the technology bubble, household holdings of equity assets tripled from 1990 to \$13.9 trillion in 2000 (all amounts in 2009 dollars). The first decade of the 2000s was characterized by the rapid growth of credit assets as the housing bubble inflated, jumping from \$8.6 trillion in 2000 to \$12.5 trillion in 2007. Despite the deep recession and the fall in home prices at the end of the first decade of the 2000s, the value of financial investments on household balance sheets remained surprisingly high. State power sheltered many credit assets from the financial storm through a variety of policies, including the Federal Deposit Insurance Corporation's backing of bank accounts and the Federal Reserve's support of questionable assets through policies such as the Troubled Asset Relief Program (TARP) (Congressional Budget Office 2012). These actions, combined with a partial stock market recovery in 2009, meant

Figure 1. Financial asset holdings in household sector (billions of 2009 dollars)



Source: Federal Reserve Flow of Funds, tables L.204, L.205, L.206, L.209, L.210, L.211, L.212, L.213, and L.214.

that household financial wealth grew nearly \$14 trillion from 1990 to 2010, more than doubling during the period.

Investors and the Income Distribution

How has the rise of investor power mapped onto the income distribution, particularly the concentration of income at the top? Because investors and investments are typically studied from a political economy or wealth framework rather than as a topic within income inequality research, this question has not been definitively answered. If economic elites are reasonably defined as households in the top one percent of income (Hacker and Pierson 2010; Volscho and Kelly 2012), then it is clear that not all elites are investors, and not all investors are elites. In fact, participation in financial markets has widened in recent decades, raising the possibility that a broad group of investors, including middle-class savers and high-net-worth households, have benefited. For example, the percentage of households that owned mutual funds increased from 4.5 percent in 1983 to 16.5 percent in 1998 (Bertraut and Starr-McCluer 2000) as the baby boomers approached their peak savings years and sought to benefit from rising stock prices. Yet this widening in investment ownership has not meant the creation of a broad “investor class”: from 1989 to 2007, the percent of total net worth held by households in the top one percent of income rose from 21.9 to 26.2 percent. The skewed impact of rising investor power on the income distribution becomes even more apparent when we consider income-producing wealth. In 2007, households in the top one percent of wealth owned 64.2 percent of bonds, 59.1 percent of stocks, 46.7 percent of non-money-market mutual funds, and 31 percent of “other investments” (Kennickell 2009b).⁴

Hypotheses

Taken together, the shift in economic power toward investors and the highly concentrated nature of investment ownership suggest an explanation for the growing income share of the top one percent. As the returns to wealth have increased, economic elites, who own the preponderance of income-producing wealth, have increasingly depended upon wealth ownership rather than labor market position for income.

Hypothesis 1A: During the 1990s and first decade of the 2000s, income concentration at the top was driven by investment gains.

While many elites are still members of “the working rich” (Piketty and Saez 2006, 202–4), a shift toward investments for income does suggest important changes in elite balance sheets, behavior, and attitudes.

Hypothesis 1B: During the 1990s and first decade of the 2000s, top-income households increasingly took on the characteristics and behavior of investors.

What might the increased importance of investment income for elites and the rise of wealthy investors mean for income inequality more generally? Different

income components, such as investment income, wage income, and government transfers, exert varying effects on the shape of the income distribution. Conceptually, the two main factors that determine the magnitude and direction of an income component's effect on overall inequality are its size relative to total household income, and the degree to which it mitigates or heightens inequality. Investment income constitutes a small portion of total household income, but is highly concentrated among elites, so it likely has outsized effects on inequality. As such, its relative influence on overall inequality levels has also likely increased.

Hypothesis 2: During the 1990s and first decade of the 2000s, investment income's contribution to overall income inequality increased relative to non-investment income.

Data and Methods

Data

To test these hypotheses, this study uses the Federal Reserve Board's Survey of Consumer Finances (SCF). The SCF is a repeated cross-sectional survey conducted every three years by the Federal Reserve Board and includes detailed information on household income, wealth holdings, and other topics. The final survey includes a nationally representative subsample with a subsample of affluent households. To create the wealthy subsample, the Federal Reserve Board uses tax data to model a potential respondent's predicted wealth using reported income and other household characteristics. Potentially wealthy households are identified and then grouped into multiple strata according to their "wealth index" value. In the 2007 survey, cases in the top stratum had a median net worth of \$300 million (Kennickell 2009a). To synthesize the wealthy and nationally representative subsamples into the combined survey sample, the Federal Reserve devises standard sample weights, which have been used in this study. The publicly available versions of the SCF are also multiply imputed, which is reflected in the calculations presented here. For more information on weights and imputation procedures, see Kennickell and Woodburn (1997).

The SCF is better suited for the current study than other more commonly used sources of information in inequality research, such as the Current Population Survey (CPS) (Kenworthy 2004) or administrative tax data (Piketty and Saez 2003). The key advantage over the CPS is that the SCF has more extensive information regarding the very wealthy and their financial situations. The CPS does not include capital gains income in its income concept, which is problematic because capital gains has replaced interest and dividends as the largest component of investment income for American households every year since 1993 (Hollenback and Kahr 2008). The SCF oversamples very wealthy households, while the sampling frame and top coding procedures in the CPS make the latter a much blunter instrument for studying elites (Burkhauser et al. 2009).

Although administrative tax data are better than the CPS and are a main data source in prior quantitative studies of elite incomes (Hacker and Pierson

2010; Piketty and Saez 2003; Volscho and Kelly 2012), the SCF is preferable for the current study because tax data contain insufficient information on investors. Tax data are generated from tax returns, and are therefore subject to the peculiarities of the tax code and household strategies to minimize taxation. This issue is unimportant for most research purposes, but it raises problems for those trying to focus on investment income among elites. Many corporate executives and other high-ranking workers receive a significant portion of their compensation in company stock or stock options (Khurana 2002). Such windfalls may be reported as investment income on tax returns to capture lower tax rates, although they are perhaps better characterized as returns to labor. The SCF identifies employee stock options, employee ownership of company stock, and other fine-grained information about wealth holdings required to test the current study's hypotheses.

While its unique design makes the SCF a powerful tool for studying wealthy households, it also has important weaknesses. Households in the wealthy subsample have a response rate of about 30 percent for most years. Households placed in lower wealth strata within that subsample have much higher response rates than households in the very highest strata (Kennickell and Woodburn 1997). Commonly given reasons for non-response include the length of the survey and the reluctance of potential respondents to divulge personal financial information (Kennickell 1998). Wealthy households that are interviewed also may not know their finances fully, or may provide inaccurate information to interviewers. Furthermore, the SCF gathers information only on pre-tax income and government transfers. This potentially understates the importance of investment income to post-tax-and-transfer inequality because wages are often taxed at a higher rate. Despite these limitations, the SCF is generally held by finance scholars to be the most reliable source of data on household wealth and investment behavior in the United States (Campbell 2006).

Methods

For the main analysis, this study uses SCF data from 1992 to 2010. This period serves as the best test of the study's hypotheses for three reasons. First, these two years correspond to similar points in the business cycle. The 1992 survey asks respondents to report income in 1991, while the 2010 survey gathers information from 2009. The years 1991 and 2009 both mark the end of a recession, which is important because many investments are highly sensitive to the business cycle (Piketty and Saez 2003). Second, while the SCF has data available dating back to 1983, in 1989 the weighting and sampling procedure was altered, making it difficult to compare survey years before and after this change. Third, specifically including data from 2010 makes the test more rigorous, because the 2007–2009 recession was the worst in the postwar era. If wealthy investors advanced relative to other households across the entire period, this points to a durable change in the logic of stratification rather than a temporary fluctuation.

To test hypothesis 1A, that investment income growth propelled income concentration at the top, this study tracks investment income among the top one

percent over time. The task is complicated because some income streams blur the line between returns on wealth versus returns on labor. For example, many professional investors, such as hedge fund or private equity fund managers, pool their capital with others and use borrowed money or derivatives with built-in leverage to magnify returns (Ackermann, McEnally, and Ravenscraft 1999). Using other people's money to simultaneously generate investment returns and management fees diverges somewhat from a common-sense view of ownership as a simple and indivisible relationship between the owner and what is owned. However, financial innovation has meant a proliferation in the ways that income claims can be sold, unbundled, and recombined such that property relations in financial markets can resemble a tangled web (Carruthers and Stinchcombe 1999). Another example is executive compensation, which has increasingly taken the form of company stock or stock options. This practice may be in part a response to tax loopholes, because investment income is often taxed at lower rates than wage income (Hacker and Pierson 2010; Volscho and Kelly 2012). Yet this fine distinction becomes fuzzier over time, because many corporate executives choose to, or are required to, save rather than spend their stock-based compensation, and in so doing amass large amounts of income-producing wealth.

Because such income streams are difficult to classify, this study utilizes upper-bound and lower-bound measures of investment income. The upper-bound measure defines investment income as the sum of dividends, realized capital gains,⁵ interest, and other investment income.⁶ Non-investment income is the sum of wages, business income, retirement income, government transfers, alimony, child support, and miscellaneous income.⁷ This measure takes all reported investment income in the SCF at face value and includes investments derived from real estate. The lower-bound measure of investment income seeks to remove any reported investment income streams that are arguably returns to labor rather than to wealth. Starting in 1998, the SCF asks respondents whether they have any stock options through their employer. If a household reports any employee stock options or owns any shares in a current or former employer, all dividends and capital gains for that household are reclassified in this measure as non-investment income.

It is instructive to consider how these two definitions of investment income might apply to the income of a notable investor, Warren Buffett. Warren Buffett is the CEO and chairman of the board of the company Berkshire Hathaway, and has long been one of the wealthiest individuals in America. According to *Forbes* magazine, his fortune in late 2012 stood at \$46 billion (Forbes 2012), and Securities and Exchange Commission filings in May 2012 revealed that his stake in Berkshire Hathaway was valued at approximately \$45 billion at the time (Berkshire Hathaway 2012, author's calculation). The same filing also indicates that he received \$491,925 in compensation during 2011 as an executive of Berkshire Hathaway and a director of a related company. Using the upper-bound measure, Buffett's 2011 investment income would include all dividends and interest from his stock and bond holdings and realized gains on any investments, while his non-investment income would include his executive compensation and

director's fees. Using the lower-bound measure, Buffett's 2011 investment income would be limited to interest he received on bond holdings or bank accounts and would exclude all dividends from any stock holdings or capital gains income because he owns stock in a company in which he is also an employee. Because Buffett is simultaneously an entrepreneur, an executive, and an investor, it is debatable exactly what portion of his income should be counted as derived from investments. However, this example illustrates that the two measures used in this study provide a reasonable range that encompasses conservative and broader investment income concepts.

In order to test hypothesis 1B, which states that top-income households increasingly took on the characteristics and behavior of investors, a variety of investor status indicators are employed. The first two measures, whether a household has financial assets worth at least \$2 million or derives 90 percent or more of its income from investments, directly correspond with a straightforward definition of wealthy investors as households dependent upon large investment portfolios. Financial assets are tabulated as the sum of a household's bonds, publicly traded stocks, interest-bearing bank accounts, and mutual fund and other investment fund holdings, and are adjusted for inflation. Stock holdings in current or former employers are excluded from this measure, along with primary residences and vacation homes, in order to obtain a very conservative estimate of investment assets and omit returns to labor or consumption assets. The upper-bound estimate of investment income is used because it is available back to 1992, but additional tabulations using the lower bound and cutoffs other than \$2 million or 90 percent of income also produce similar findings.

The second set of wealthy investor status indicators are less direct but also shed some light on elite attitudes and behavior: whether a household has any adults in the workforce, has ever received a wealth transfer, and has above-average investment risk tolerance. Having no adults in the workforce indicates that a household is completely free from wage labor and has opted out of the labor market, and instead solely derives income from property ownership or other non-work sources. Wealth transfer receipt indicates that at least a portion of investment holdings are derived from intergenerational transfers rather than savings, so a trend toward greater incidence of wealth transfer receipt at the top suggests a growing importance of dynastic fortunes for achieving elite status. Households are coded for having above-average investment risk tolerance if respondents indicate a willingness to take substantial or above-average financial risks to earn substantial or above-average financial returns. A trend toward greater risk tolerance suggests that growing financial income at the top is due partly to a shift toward riskier investments with potentially higher payoffs, and may also partially reflect the recent proliferation of new and risky financial products.

To test hypothesis 2, that investment income has become increasingly important for overall income inequality, this study uses a Shapley decomposition.⁸ This procedure determines the relative contributions to inequality of different income sources by eliminating them one at a time and assessing how their removal changes the distribution of remaining income. Because there is no natural order

of elimination and the order of elimination can change the calculated marginal contribution to inequality for an income component, contributions are averaged across all possible sequences of elimination (Shorrocks 2012). When using Shapley decompositions, analysts have two ways to eliminate an income component: dropping entirely by changing all values to zero, or holding all values at their mean and thereby equalizing that component across households. While arguments can be made for each procedure (see Shorrocks 1982), the zero method tends to assign much higher contributions to small but highly unequal components such as investment income, and is more sensitive to the number of categories into which income is aggregated (Sastre and Trannoy 2002). This study therefore adopts the more stable and conservative equalizing approach.

Results

Descriptive Statistics

Table 1 displays descriptive statistics for the survey years 1992–2010. Median household income rose from about \$42,000 in 1992 to nearly \$49,000 in 2004 before falling to \$45,000 in 2010 (all measures in 2009 dollars). Average income for the top one percent followed a roughly similar pattern, albeit with greater volatility, rising from about \$1.1 million in 1992 to highs of about \$1.8 million in 2001 and 2007 before falling to \$1.3 million in 2010. Measured in terms of the Gini coefficient, there was only a slight uptick in absolute inequality levels in 1992 versus 2010, although inequality spiked during the bubble years represented in the 2001 and 2007 surveys. The oversampling of the very wealthy meant that about 15 percent of total respondents in the SCF include households in the top one percent nationally after survey weights are applied, except for the 2010 survey, when the overall sample size was expanded.

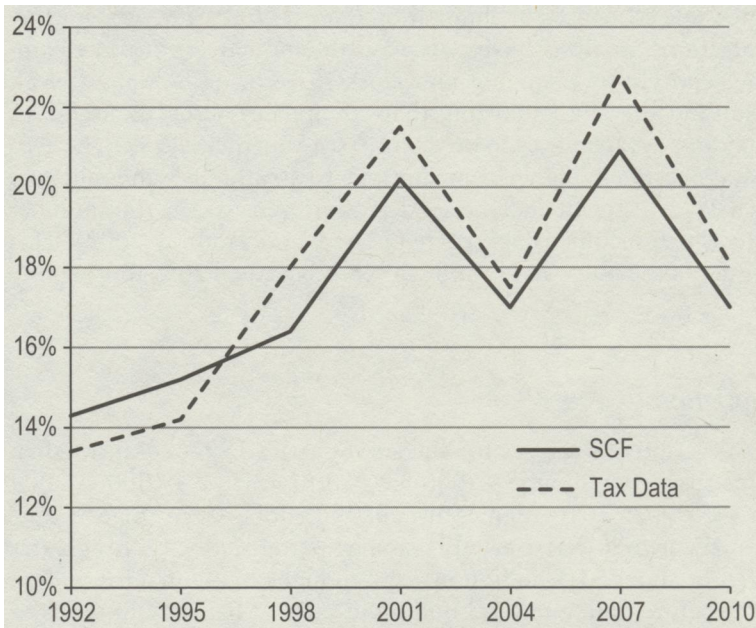
Figure 2 displays the shift in income share for the top one percent from 1992 to 2010 using SCF and administrative tax data. In both surveys, the

Table 1. Characteristics of SCF Sample, 1992–2010^a

	Total sample size	Median household income	Average household income for top 1%	Percent of unweighted sample in top 1%	Gini coefficient
1992	3906	\$42,525	\$1,085,317	15%	0.550
1995	4299	\$43,410	\$1,143,568	14%	0.549
1998	4305	\$45,558	\$1,274,528	14%	0.548
2001	4442	\$48,345	\$1,777,539	14%	0.573
2004	4519	\$48,972	\$1,356,772	16%	0.543
2007	4418	\$48,944	\$1,808,131	16%	0.575
2010	6482	\$45,100	\$1,311,310	9%	0.553

^aAll dollar amounts in 2009 dollars.

Figure 2. Income share of top one percent using SCF and tax data, 1992–2010 (including capital gains)



Source for tax data: World Top Incomes Database, <http://g-mond.parisschoolofeconomics.eu/topincomes/>.

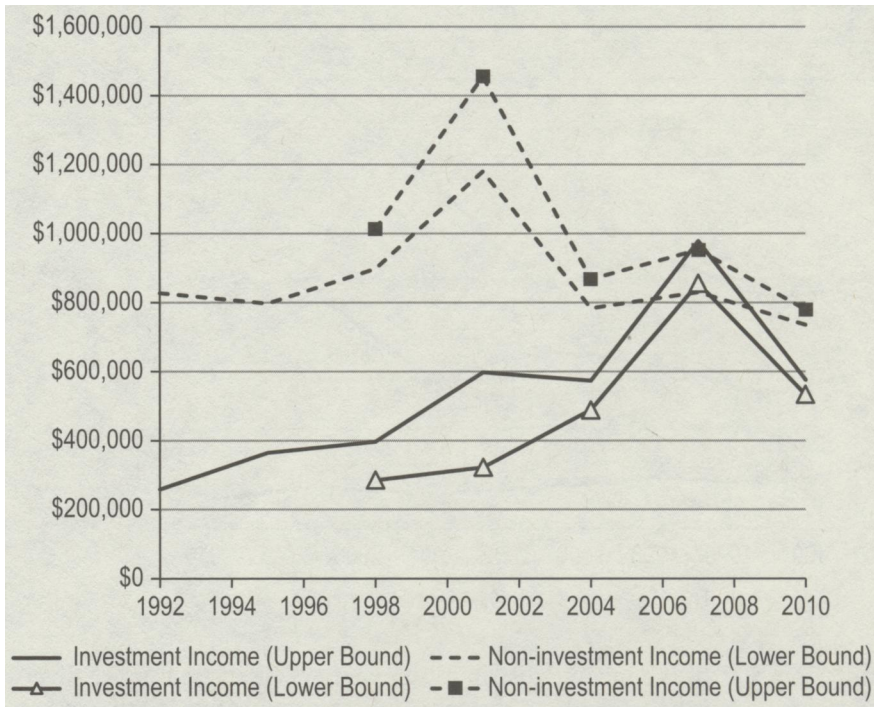
Note: Tax data is for prior year to match SCF survey design.

top-one-percent-income share steadily rises through the 1990s to about 20 percent of total income before temporarily declining during the early 2000s. These losses were regained at the height of the housing bubble before falling back again following the 2008 financial crisis, yet remained at elevated levels compared to the early 1990s. Slight divergences between the two data sets occur partly because one uses households while the other uses tax returns as the basic unit of analysis, and they employ slightly different income concepts. However, their broad similarity provides reassurance of the SCF's validity for the task at hand.

Hypothesis 1A: Investment Income among Economic Elites

Figure 3 indicates that income concentration at the top was driven by investment income growth. Upper-bound investment income averaged about \$250,000 for top-one-percent households in 1992, 24 percent of the total. Through 2007, investment income steadily rose in both absolute terms and proportional to non-investment income, reaching about \$950,000, or 54 percent of total income, in 2007. Lower-bound non-investment income, which corresponds with upper-bound investment income, also rapidly rose through the 1990s, from about \$825,000 in 1992 to a peak of nearly \$1.2 million in the 2001 survey. In the first decade of the 2000s, non-investment income rapidly declined, falling to under \$750,000 in 2010. Lower-bound investment income produces similar

Figure 3. Average income by source for households in the top one percent of income, 1992–2010 (2009 dollars)

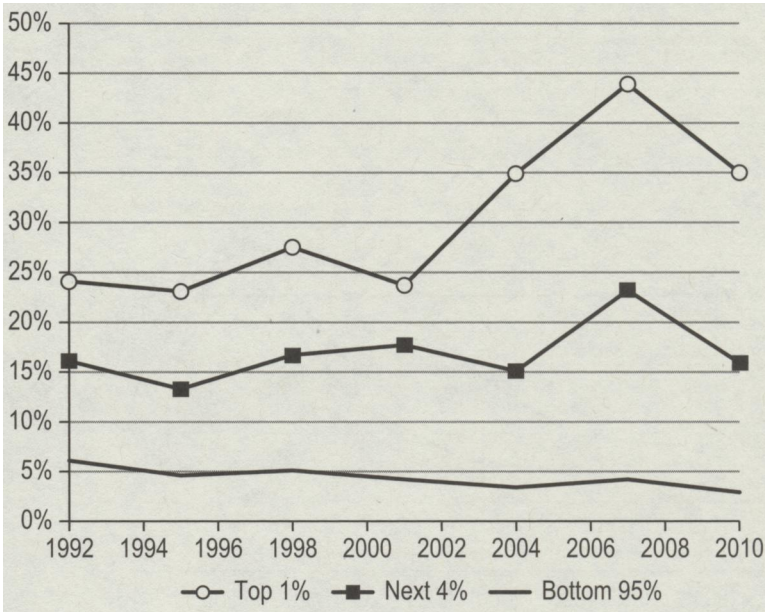


results, although the increase is from lower initial levels and more of the gains are concentrated in the 2000s. The largest divergence between lower-bound and upper-bound investment income measures occurs in the 2001 survey, because the former does not include stock-based compensation that became commonplace during the technology bubble.

Regardless of the measure, the result is clear: for the period 1992–2010, non-investment income among the top one percent temporarily spiked during the late 1990s but was otherwise stagnant or declining. Investment income fueled income growth at the top, propping up total income levels for elites in the 2000s as other sources were drying up. Supplemental analyses reveal that the key driver of investment income growth during the 1990s was capital gains, while capital gains and other investment income⁹ were both important for investment income growth during the 2000s.

Figure 4 documents that the income benefits deriving from the rise of investors were not broadly spread across the income distribution. Whereas investment income for households in the top one percent rose from 24 percent of the total to 44 percent from 1992 to 2010, there was no analogous rise for other percentile groups. Households in the 95th- to 99th-income percentile did experience a proportional rise in investment income, from 16 percent in 1992 to a high of 25 percent in 2007. However, those gains were mostly reversed by 2010, as investment income fell to 17 percent of the total. Households in the

Figure 4. Investment income (upper bound) as percent of total household income by percentile group, 1992–2010



bottom 95 percent of the income distribution experienced an even more divergent experience than households at the top. Investment income for this group steadily declined from 6 percent of the total in 1992 to just over 3 percent in 2010. Taken together, figures 3 and 4 provide strong support for hypothesis 1A that elites have depended upon their investments to realize income growth, and that such windfalls were not shared with most other households.

Hypothesis 1B: Investor Characteristics and Behavior

Figure 5 reveals that households in the top one percent of income have increasingly taken on the characteristics of wealthy investors dependent upon their portfolios for income. In 1992, 14 percent of elite households owned financial portfolios valued at \$2 million or more (2009 dollars). This figure jumped to 41 percent in 2001. Despite declining temporarily during the early 2000s bear market, the ranks of multimillionaires rose again with housing prices, reaching 52 percent in 2007 and registering only a slight decline to 48 percent in 2010. As economic elites' investment portfolios grew, so did their reliance on investment income. During the 1990s, the percent of households depending on investments for at least nine-tenths of total income stayed relatively level at about 5–6 percent. This figure shot up during the early 2000s to over 20 percent in 2007 before falling back to 17 percent in 2010. While it would be an exaggeration to say that the one percent has been totally transformed into a class of wealthy investors, wealthy investors have become more prominent within elite ranks than during any other time in recent history.

Figure 5. Direct indicators of investor role among households in top one percent of income, 1992–2010

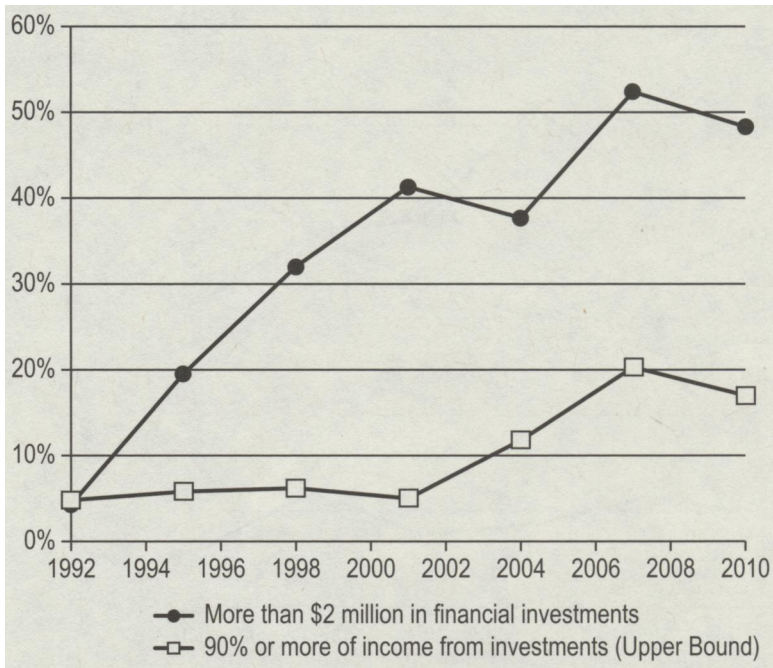
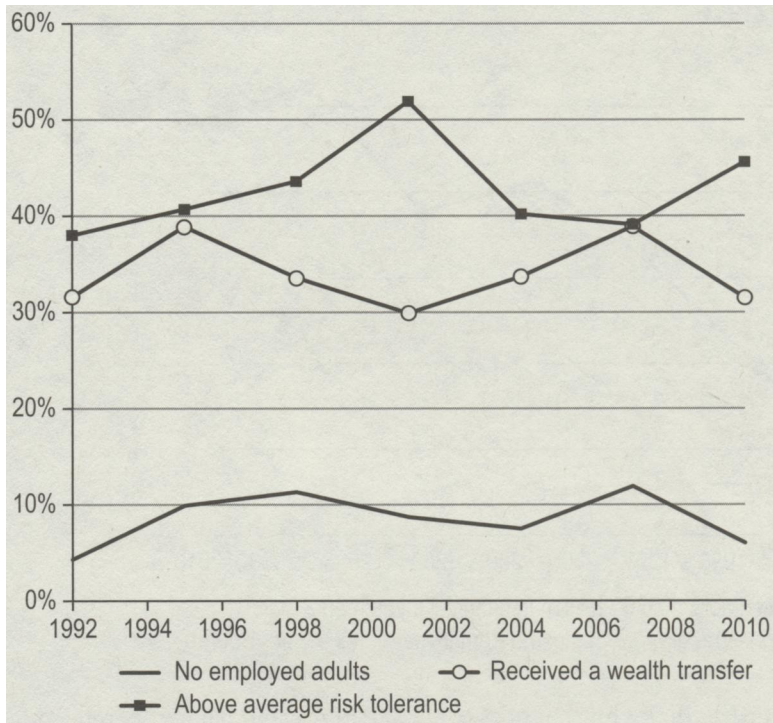


Figure 6 indicates that while changes in elite attitudes and behaviors reflecting investor status are sensitive to the business cycle, a larger secular trend is less evident. Non-involvement in the labor force among the top one percent rose from a low of 4 percent in 1992 to a cyclical high of 11 percent in 1998. This percentage dipped to 8 percent in 2004 before reaching a new high of 12 percent in 2007. In the 2010 survey, this figure fell again to 6 percent. This suggests that when the economy is doing well, elites can more easily leave the labor market to live off their investments, but move back into the labor force during downturns. Not surprisingly, the incidence of wealth transfer receipt closely mirrors workforce attachment, ranging from lows of about 30 percent in 1992, 2001, and 2010 to nearly 40 percent in 1995 and 2007. Taken together, these two results suggest that while wealth transfers are important for building the fortunes of many elite families, savings out of labor market income also play an important role, and that most income elites retain some attachment to the labor force. Interestingly, above-average investment risk tolerance among elites changes at different times than voluntary unemployment and wealth transfer incidence, reaching a high of over 50 percent of top-income households in the 2001 survey and reaching its second highest mark of 46 percent in 2010. This high level of risk tolerance in 2010 is somewhat surprising, given that it reflects investor sentiment immediately following the 2008 financial crisis and subsequent market crash. This may be a result of strong stock market performance in 2009, unprecedented state action to prop up asset prices following the

Figure 6. Indirect indicators of investor role among households in top one percent of income, 1992–2010



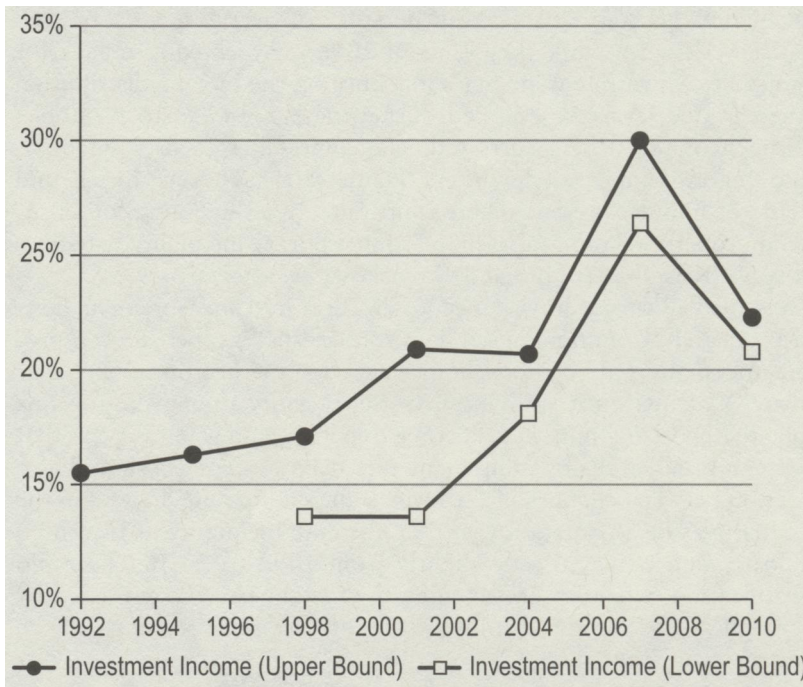
crisis, a longer-term shift away from conservative investments among elites, or some combination of the three.

Overall, the results in figures 5 and 6 indicate a partial shift in the identity of economic elites toward wealthy investors. Elite investment portfolios have rapidly grown, as have the proportion of elites that are almost totally dependent on their investments. This trend is not simply an artifact of executive compensation practices (McCall and Percheski 2010) or tax avoidance schemes among workers (Volscho and Kelly 2012), but is instead supported by rapidly growing, income-generating investment portfolios. However, there is no clear trend in the financial outlook or behavior of elites beyond a given business cycle during this period. Although these results are strong enough to provide partial support for hypothesis 1B in the sense of rising portfolio values and increased functional dependence on investment income, the exact behavioral and attitudinal drivers of this change are unclear and require further study.

Hypothesis 2: Investment Income and Overall Inequality

Figure 7 shows the rapidly growing importance of investment income for overall income inequality from 1992 to 2010. Using the upper-bound investment income measure, investment income's contribution to overall income inequality increased

Figure 7. Percent contribution of investment income to overall income inequality using upper-bound and lower-bound measures, 1992–2010



from 15 percent in 1992 to 21 percent in 2000. This increased to 30 percent in 2007 before falling back to 22 percent in 2010. The lower-bound investment income measure shows a delayed but similar trend: investment income's contribution rose from 14 percent in 2001 to a peak of 26 percent in 2007 before falling to 20 percent in 2010. These results indicate that while investment income plays the largest role in overall income inequality during financial bubbles, it has become a major factor even during downturns, providing support for hypothesis 2. In fact, according to both measures, investment income contributed more to overall observed income inequality in 2010 than at the peak of the late 1990s stock bubble. Despite the fact that investment income is zero or negligible for many families and generally takes a backseat to wages or government transfers inequality research, property ownership has clearly become increasingly important for determining how income is distributed.

A New Gilded Age?

In recent years, economic elites have increasingly turned to their investment portfolios for income, while households at other points of the income distribution have benefited little from the shift in economic power toward investors. Large investment portfolios among top-income households have become commonplace, and a growing minority of elite households is almost totally dependent upon their

wealth for income. Because of its rapid growth and high degree of concentration, income-producing wealth has also become an important contributor to overall household inequality, accounting for about one-fifth of overall inequality even after the financial crisis. So, while the events of 2008 represented a setback for many economic elites, investment income's influence on the income distribution remains at the elevated levels experienced during the late 1990s stock bubble. Thus, while much of the debate surrounding income elites focuses on privileged groups of highly compensated workers (Hanley 2011; DiPrete, Eirich, and Pittinsky 2010), the findings presented here contribute to the emerging consensus that wealth and property relations also shape contemporary inequality dynamics in important ways (Kristal 2010; Lin and Tomaskovic-Devey 2013).

These results also illustrate how conceptualization and measurement decisions influence research. Commonly used data sources such as the CPS can provide excellent information about household wages for the bottom ninety-nine percent, but are inadequate for studying investment gains among the top one percent. Explicitly theorizing non-wage income dynamics and using surveys that focus on elites can broaden the ongoing inequality debate. Analysts should also draw a distinction between changes in the level of inequality and changes in the drivers of inequality. The SCF data reveal that absolute inequality as measured by the Gini coefficient increased only slightly from 1992 to 2010. The rapid change in stratification dynamics documented here might have been missed by research approaches focusing on absolute inequality levels or seeking only to decompose increases in inequality.

Economic Elites

While this study indicates that the American economic elite has changed in important ways, many important questions remain unanswered. The data presented here are cross-sectional, so it is unclear whether there is a high degree of mobility between the top one percent and other households. Households at the top experience greater income volatility than many other households because their incomes are so sensitive to economic conditions and asset prices. Thus, the rising importance of investment income at the top may have paradoxically produced more churning in and out of the one percent, versus a social system in which all elites are leaders of large, stable organizations. If elite status is indeed becoming less stable and less tied to large organizations, this could lead to a decline in cultural and ideological cohesion among elites (Mizruchi 2010). Scholars have begun to investigate the distributional implications of organizational change (see Goldstein 2012; Davis and Cobb 2010), yet we still do not know exactly what these transformations might mean for elite formation and elite identity. Similarly, have wealthy investors become more diverse as their ranks have increased? Some elite institutions that have traditionally been dominated by white males, such as prestigious universities, the professions, and social clubs, have opened somewhat to women and racial minorities (Kahn 2012). On the other hand, one of the consistent themes in wealth research is the stubborn persistence of wealth disparities by race and gender (Keister 2000; Oliver and

Shapiro 1995). Future research should delve deeper into elite demographics and wealth accumulation dynamics to analyze whether racial and gender wealth disparities are reproduced even at the top.

Economic Inequality

The growing importance of wealth for income also means that inequality scholars can examine the traditional concepts of class and social conflict through a new lens. Although empirical inequality research has moved away from theorizing large-scale social classes in favor of smaller units (Weeden and Grusky 2005), the rise of investors opens up space to explore how property ownership rather than control over production (Wright 1979) relates to class formation at the macro level. One theme that emerges from this alternative conceptualization of class is the debtor-creditor relationship. Debt has been an important dimension of class systems since classical times (Graeber 2011), but sociologists have tended to emphasize labor market processes as drivers of inequality in modern societies (Weeden 2002). Yet the current study suggests that in an era of rising debt, wealth concentration, and increasingly violent financial crises, a household's position as a net debtor or net creditor can be vitally important in shaping its members' life chances, access to resources, and economic interests.

As debt and credit have become more important in shaping economic inequality, new social fault lines have emerged. One area is monetary policy. Until recently, central banking was the preserve of technocrats, but now Federal Reserve policy is a matter of intense contestation partly because of the conflicting interests of debtors and creditors: higher inflation or lower interest rates benefit many debtors because they reduce the effective burden of servicing their obligations, but can spell loss of income or real capital losses for creditors or investors more generally. Similarly, when delinquency or default requires debt restructuring, the interests of creditors and debtors are antagonistic. Debtors would prefer to minimize or eliminate their obligations, while creditors would prefer to avoid write-downs or other losses, by either preventing debt from being discharged at all or diverting the losses to third parties such as the government.

Precisely because of the high stakes involved, both debtors and creditors have increasingly sought to wield state power to protect their interests. Since the 2008 financial crisis, the federal government's intervention in markets for home mortgages, student loans, and credit cards has significantly increased. Regulators have even made tentative steps toward regulating more esoteric financial innovations. These developments suggest the possibility of a reversal in the trend documented here. Whereas the financialization of recent decades required a "depoliticization of the economy" in the ideological sphere even if not always accompanied by the actual withdrawal of state actors from the market (Krippner 2011, 144–46), a new and contentious politics of finance has emerged challenging the established boundaries between the economic and the political. However this debate develops in the coming years, it is clear that its outcome will have important implications for the future of economic inequality.

Notes

1. “Investor” is similar to the term translated as “rentier” in Weber’s works, but the former was used here to emphasize investment gains in general rather than interest income from financial assets (Epstein and Jayadev 2005).
2. Checking accounts, savings and time deposits, money market funds, treasury securities, agency- and government-sponsored entity securities, municipal bonds, and corporate bonds.
3. Stock and mutual funds.
4. Futures contracts, oil leases, and royalties.
5. Realized capital gains are the returns generated from the purchase and subsequent sale of an asset at a higher price. The realization of capital gains does not precisely correspond to the timing of asset appreciation, because investors may decide to hold rather than sell appreciating assets. Thus, the measure employed here is conservative because it does not include paper gains. See Smeeding and Thompson (2010) for a discussion of expansive measures of investment income based on wealth that seek to measure unrealized capital gains.
6. Includes net rent, trust, royalty income, and income from “other businesses or investments.”
7. Supplemental analyses restricted non-investment income to business and wage income while omitting other income sources, producing the same substantive results.
8. Available in the Distributive Analysis Stata Package (DASP) using the command “dsginis.”
9. This category does not have an ideal level of granularity, but this finding is consistent with the rise of alternative investment vehicles such as hedge funds during the 2000s documented elsewhere (Wilson and Liddell 2010).

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