

Dēmos

Financialization & Equal Opportunity

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About Demos

Demos is a public policy organization working for an America where we all have an equal say in our democracy and an equal chance in our economy.

Our name means “the people.” It is the root word of democracy, and it reminds us that in America, the true source of our greatness is the diversity of our people. Our nation’s highest challenge is to create a democracy that truly empowers people of all backgrounds, so that we all have a say in setting the policies that shape opportunity and provide for our common future. To help America meet that challenge, Demos is working to reduce both political and economic inequality, deploying original research, advocacy, litigation, and strategic communications to create the America the people deserve.

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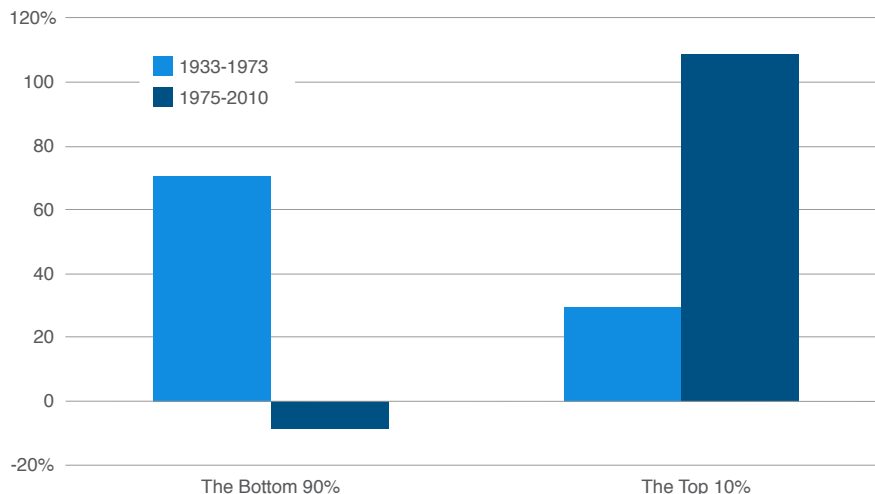
INTRODUCTION

In the three decades after World War II, America became the first predominantly middle-class country in the world and our poverty rate was cut in half. Americans experienced what scholars describe as the “Great Compression.” In this era, real average compensation rose nearly one-to-one with productivity gains;¹ the bottom 90 percent of households (in terms of income) enjoyed most of the benefits of growth over the slightly longer period from 1933-1973 (see Figure 1). Inequality of income and wealth in the US was at its low ebb.

Over the most recent three and one-half decades, the Great Compression has been almost completely reversed. A large majority of households has seen minimal or no real income gains and a substantial minority actually lost ground. Meanwhile a tiny minority of the most affluent households has enjoyed unprecedented income gains, with the richest 1 percent of households capturing nearly 70 percent of income gains between 1993 and 2012 and virtually all of the growth since the Great Recession.² Today our society suffers from levels of inequality that threaten to surpass even the extremes of the Gilded Age.

Of course, the benefits of the Great Compression were distributed unevenly across racial and ethnic categories. On average, white Americans always fared better. By the early 1980’s the wealth ratio

Figure 1. Growth Accruing to Each Income Group



Source: Thomas Piketty and Emmanuel Saez, 2013

of whites to African-Americans was 12-to-1 and the wealth ratio of whites to Latinos was 8-to-1. By 2009, these ratios had increased to 19-to-1 and 15-to-1 in part due to the disproportionate effects of the mortgage crisis caused by the financial sector.³

The coming of this second Gilded Age has coincided with a number of important structural changes in our political economy—today our tax code is significantly less progressive, our higher education system is less accessible and much more unequal and our unions and labor rights are comparatively much weaker in the struggle for a fair distribution of wages.⁴ These structural changes have been justified as strengthening the private sector to encourage growth—growth that supposedly would lift up middle- and low-income households.

Exactly the reverse has unfolded: the rich have gotten vastly richer, while the majority of Americans have seen no real gains or lost ground. The rationale behind these changes was market-libertarianism and the belief that markets are far more efficient at allocating capital among alternative uses than the government.⁵ If the 2008 financial crisis did nothing else, it should have taught us that the market is not a freestanding, efficient machine that should be set free to work its magic.

Initially, in the wake of the bank bailouts of 2008, much of the discussion focused on the problem of excessive risk in the financial system, culminating in the Dodd-Frank legislation passed in 2010. More recently, researchers and analysts have raised a deeper set of questions about what is termed the “financialization” of our economy.

Many forces contribute to growing inequalities of income and wealth, but the financial system is the medium through which they work and has become a controlling factor. To illuminate this economic transformation, our analysis departs from previous discussions of financial reform by assessing how the evolution of the financial sector since 1980, and its expanding role in the economy, interact with other forces in the economy so that wealth is no longer cycled into well-paying jobs that raise average living standards and provide security for ordinary Americans. Instead, wealth increasingly grows only itself, for the benefit of a tiny minority of business owners and managers and to the detriment of the non-financial economy of production, jobs, household earnings and real economic growth.

Understanding this is important in a practical sense. Contrary to the market-libertarian views held by a large majority of decision

makers today, policies aiming to reduce inequalities of wealth and income may also be more efficient in terms of growth, raising living standards over the long term.

The compounding increase in inequality driven by weak economic growth is a story that leading researchers—most notably Thomas Piketty—see unfolding in the twenty-first century, particularly in the United States.⁶ Yet, in discussions of America's growing inequality, we often hear that policies designed to promote greater equality, such as implementing a more progressive tax code, will backfire because they will reduce investment and “shrink the economic pie,” thereby limiting opportunities for lower-income households. Our analysis turns this metaphor on its head by examining how, in fact, the financial system is “shrinking the economic pie” for all Americans while simultaneously channeling nearly all of the remaining growth exclusively to the most affluent among us. Indeed, we argue that financialization is not only a major driver of growing inequality but also undermines key sources of growth and job creation, effectively transforming our economy into something approaching a zero-sum game between financial wealth-holders and the rest of America.

Basic investment patterns provide a window on what is happening. Big businesses have increasingly elected to forego investment of profits and newly raised capital in job-creating enterprise growth and new product lines; instead, they distribute cash assets derived from operating profits to shareholders in share buybacks, reducing claims on remaining assets.⁷ Small business formation and investment have been shrinking for at least a decade, as is government investment—a critical growth engine in the twentieth-century economy—at every level.⁸ All of these negative trends are so closely related to financialization that they must be seen as an element of it. Effectively, the real economy is being converted into a servant of passive investment that either exploits or bypasses ordinary workers and households, with a bottom line of more household debt, shrinking labor incomes, diminishing job security and weak employment growth for a large majority of Americans.

Whether and how America addresses this problem is extraordinarily consequential for our society: Current trends, if left unabated, will likely reduce the median living standard of future generations for the first time in American history. Further, as Piketty's elegant historical model of growth and income distribution suggests, the compounding force of extreme income inequalities will create dynastic wealth, passing between fewer and fewer hands across gen-

erations, challenging our fundamental political values.

Public policies can diminish and reverse these trends. However, the near-complete destruction of campaign finance limits under the Roberts Supreme Court does not bode well for winning historically effective political solutions to this problem any time soon, such as taxation of wealth at levels that would make a difference. Thus, reining in financialization, the structure that facilitates inequality, is all the more important. It may also be more politically viable given the range of potential stakeholders, including financial stakeholders, who are losing out in an economy designed to grow Wall Street at the expense of Main Street.

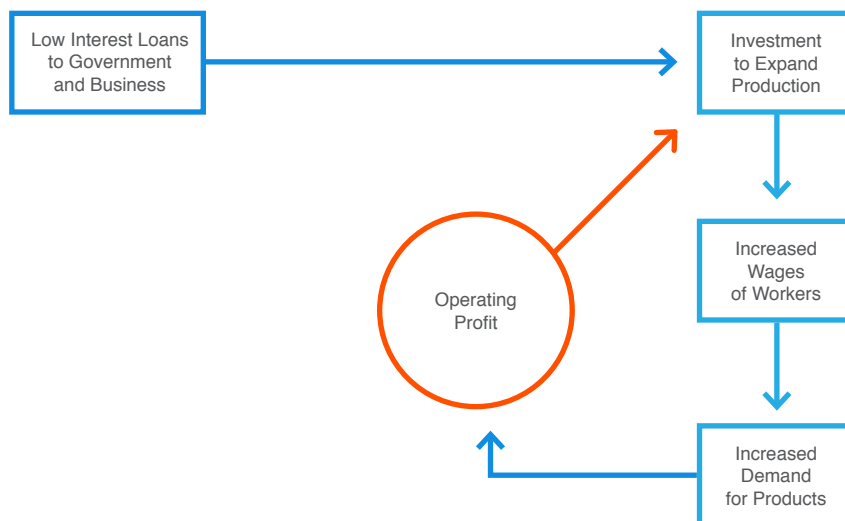
In the following report, we make a case for “de-financialization” of our economy, from a standpoint of equal opportunity, increased middle and lower incomes, job creation and sustainable economic growth. First, we examine the conditions that have emerged over the last three and one-half decades in the section entitled “A Faltering Economy.” The major findings and conclusions of this report are summarized under “Financialization and Its Impacts: Basic Observations.” Next, in the section entitled “From Finance to Financialization,” we propose a new, more useful definition of financialization and identify its scope and characteristics. In “Financialization in Society: Inequality and the Dynamics of Capitalism,” we explore income and wealth inequality and their connections with financialization. From that base of inquiry, we then move on to the two elements of inequality, increasing wealth and income of the wealthiest and stagnating wealth and income of the great majority of households. We analyze the role of financialization in the growing wealth of the very wealthiest Americans under the heading “Financialization and Inequality: Wealth Accumulation and Capital Returns.” Finally, we explore the relationship between financialization and weak growth of the economy and stagnating income from labor in “Financialization and Inequality: Employment and Economic Growth.” At the end of this report, findings and conclusions are discussed under “Conclusions.”

I. A FALTERING ECONOMY

More than six years have passed since the banking crisis of 2008 plunged America into the Great Recession and its painful aftermath. While the shorter-term causes of the crisis have been extensively debated, and partly remedied, policymakers have been slower to grasp the longer-term implications, as reflected in wage stagnation, diminishing job security, prolonged recovery toward full employment and other economic challenges. Aggregate trends paint a picture of macroeconomic decline:

- Economic growth remains low compared with pre-crash rates. Low growth persists despite unprecedented intervention by the Federal Reserve to lower interest rates and incentivize capital investment. Interest rates have lingered close to zero for an extended period, but U.S. Gross Domestic Product remains close to 10 percent lower than projections for 2014 made before the crisis.⁹ Leading economists suggest that the United States may be in danger of falling into “secular stagnation,”¹⁰ a condition in which low interest rates cannot ignite a virtuous cycle of growth by stimulating aggregate

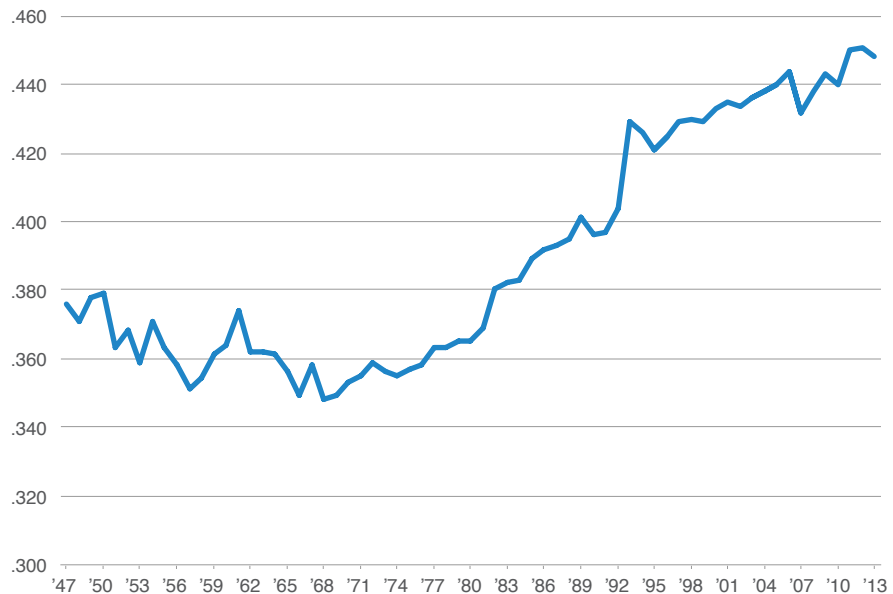
Figure 2. Ignition of Virtuous Cycle by Monetary Policy



demand and investment in business growth (see Figure 2).

- Economic inequality has grown dramatically in recent decades, almost entirely due to gains at the top of the distribution and stagnant growth for all others.¹¹ After a long period of stable decline in the U.S., our Gini coefficient¹² has increased by more than 20 percent since 1980 (see Figure 3), sharply contradicting Simon Kuznets’ once canonical theory that income disparity inevitably narrows in advanced economies (the “Kuznets Curve”).¹³ Notably, the Kuznets Curve, developed in the 1950s, did not anticipate financialization, in any of its manifestations.
- The financial sector has grown substantially as a share of Gross Domestic Product (see Figure 4).¹⁴ This trend is often referred to as “financialization,” but such a definition is both too broad and too narrow. Beyond the growth of the financial sector as defined in GDP terms, financialization encompasses other sectors of our economy, which are distorted or disinvested in the service of financial returns. Additionally, to be useful, financialization should be defined as financial activity that goes beyond the activity needed to accomplish the core purpose of the financial sector and impairs the quality of service to that core purpose.

Figure 3. Income Gini Ratio of Families by Race of Householder, All Races, Ratio, Annual, Not Seasonally Adjusted



Source: Census Bureau, 2014

Figure 4. Finance as a Share of GDP



Source: Thomas Philippon, 2012

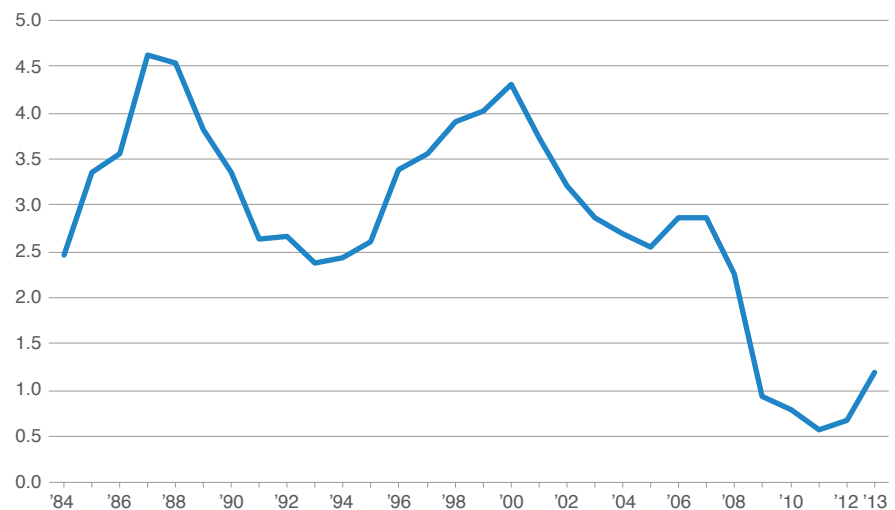
These conditions—weakening growth, rising inequality, and financialization—emerged concurrently, beginning in the early 1980s.¹⁵ The latter is demonstrably associated with a series of policy and regulatory changes that allowed and encouraged the dramatic expansion of the scope and volume of financial activities.¹⁶ It has been demonstrated that inequality commenced its rise at the same time, reversing decades of declining inequality.¹⁷ This has been associated with many factors, including the decline of trade unions, regressive tax reform, and a depreciating minimum wage. Our analysis identifies causal relationships between financialization and inequality.

The weakness in GDP growth, however, was disguised for extended periods. Effectively, growth was financialized: The dot-com bubble pumped up growth through the wealth effect¹⁸ for a period in the late 1990s; then, in the years before the financial crisis, extraordinary leverage, particularly mortgage debt, helped to shore up effective demand in the absence of rising household earnings.¹⁹ We may even be in a version of financialized growth now, as a stock market bubble may be occurring. With the banking crisis and Great Recession of the late 2000s, it became obvious that such financialized growth is not sustainable. Nonetheless, the underlying long-term trend of declining average growth (see Figure 5) has raised new questions about economic stagnation and its causes.²⁰ (The data is depicted in rolling five-year increments in order to make

the long-term trends more observable by eliminating short-term volatility. Annual depiction of data would show the same overall trend.)

Notably, however, the debate about growth and inequality has tended to treat financialization as a symptom of stagnation—a kind of backup source of buying power in an economy drained of earnings-driven demand. But, in our analysis, financialization is seen as a cause of the stagnation. Among other things, this distinction is very important for policy: treating financialization as a symptom of stagnation rather than as a cause is likely to produce solutions targeting credit consumers, such as stronger mortgage lending standards. Treating financialization as a cause of stagnation, on the other hand, would point to solutions promoting more productive uses of financial capital.

Figure 5. Five Year Rolling Average of GDP Growth, 1980-2013



Source: Department of Commerce, 2013

II. FINANCIALIZATION AND ITS IMPACTS: BASIC OBSERVATIONS

We have emphasized three basic long-term trends in our economy —low growth, income and wealth disparity and financialization. We address the critical question of how these trends are related. We find that they are deeply interconnected, and we explore the “how” in the remainder of this report. ²¹ The report makes a series of general observations that demarcate some of the key dynamics and consequences of financialization:

- Financialization is best defined as financial activity that does not improve, and most often burdens, capital intermediation—the matching of current savings with future production activities and societal needs (which we identify as the core social purpose of the financial sector). Capital intermediation is efficient if investment generates optimal positive social outcomes and a higher standard of living across society. Conversely, an inefficient financial system is one that starves productive investment and generates net social costs, which more or less describes what we have today. A financial system that costs the economy more than the benefit provided and/or fails to allocate investment so as to serve the public’s interest is inefficient.
- If the financial sector activity associated with financialization is viewed as a separate business, it is very large, and is estimated to represent more than 15 percent of the entire market capitalization of all U.S. businesses. Nevertheless, this greatly understates the degree that financialization has transformed the economy, omitting the financialization of the non-financial business sector and households.
- Financialization most obviously includes activities of the financial sector, like excessive and non-beneficial secondary market trading in securities and mis-pricing and excessive use of derivatives. It also includes financial activities of the non-financial sector that are generated by the financialization process. An increasing share of the business of non-financial

companies is devoted to activities that can be seen as those of very specialized hedge funds. This is driven by the shareholder value theory of corporate management, valuation practices of investors and executive compensation practices. It is integral to financialization.

- Rising economic inequality is driven in part by chronic low growth (compared with recent history) relative to returns from capital investment and high compensation for a small number of “supermanagers.” These trends are connected in a spiraling feedback loop. Inequality has been shown to substantially diminish the growth of the economy. While Thomas Piketty’s widely-discussed research suggests that increasing disparity is an inevitable attribute of capitalism, he does not consider the effects of financialization, a phenomenon that need not be tolerated. Financialization is not inevitable—it is a consequence of specific policies—and curbing financialization is important for reducing inequality.
- Financialization is driven by the current structure of the financial sector, in which financial sector firms have the means, incentives and market power to generate large “economic rents” that are extracted from the economy. Economic rents are profits in excess of value commensurate with competition, and therefore are dependent on market power, including market power derived from advanced technology and quantitative analytics. Relatively certain and large profits enable and incent financial firms to raise large amounts of capital to back the business of financialization. This increased financial sector share of capital competes successfully with the demand for investment capital for other businesses as well as for households, communities and broader social needs.
- The increase in capital devoted to financialization, with its structurally high returns, increases the accumulation of wealth derived from returns on capital investment, which fuels wealth inequality. Large-scale wealth accumulation threatens to become dynastic, across generations, and the attendant political influence could threaten basic democratic values.

- The compensation of both financial sector and non-financial sector supermanagers (highly paid executives that make up the large majority of the top 0.1 percent based on income) is best viewed as a form of privileged ownership of scarce assets rather than as wages for labor. In this light, today's supermanagers are similar to the elite rentier class that was dominant before the period commencing with World War I (a class which enjoyed dynastic monopoly holdings of land, natural resources, transportation, and other businesses).²² That era was characterized by chronic and extreme wealth and income inequality. Unlike those of the earlier rentier class, the scarce assets held by today's supermanagers are largely financial assets and other more intangible forms of wealth (in particular, supermanager claims on profit shares and conditional equity ownership).
- Rapid growth of the financial sector, with low regard for risk, is incited by the structure of financialization and the executive compensation practices of the firms, managers, and other agents who benefit from it. The capital investment in this financial sector growth does not support productive activities or labor incomes, thereby weakening aggregate demand and long-term growth in the economy. The growth of capital devoted to financialization crowds out more productive uses of capital and diminishes the effectiveness of monetary policy, lengthening and deepening the effects of cyclical economic downturns. Financialization's suppression of non-financial growth undercuts the bargaining power of workers and contributes to growing inequalities of wealth and income in our society.
- The effects of financialization on shareholders and the specific incentives generated by executive compensation schemes have caused non-financial sector firms to be increasingly managed with the primary purpose of maximizing short-term share value. As a result, business performance and strategy are being realigned to generate higher market valuations (primarily driven by short-term return on assets) instead of enterprise growth. Returns on assets created by investment are typically uncertain and occur after the passage of time. As a consequence, managers are incited to increase share price by increasing returns on assets while simultaneously

avoiding enterprise growth through investment in capital asset expansion and innovation. To achieve this, managers limit or reduce assets held by the company, such as cash and lines of business and plant and equipment, often focusing on increasing net revenue by lowering expenses. Cash derived from earnings is increasingly not reinvested but instead used to buy in shares of stock. Investment in expansion and innovation is diminished.

- The interests of management are not completely aligned with shareholders through stock option compensation plans and restricted stock ownership, although that is the justification for such compensation practices. The manager's wealth is tied to a single firm; a shareholder invests in the same company as part of a larger portfolio. Therefore, the manager's appetite for the short-term risk of investment in growth and innovation is less than the shareholder's. This misalignment further dis-incentivizes management to engage in asset growth and innovation, beyond the short-term share value considerations of shareholders. Under these conditions, the dynamism of the non-financial sector—the process of businesses failing and new businesses starting with a transference of jobs—has slowed dramatically since 1980, adversely affecting middle and lower income households.
- Several other dynamics should be noted (to be explored in more detail in subsequent reports). The relationship of income and wealth inequality to racial inequality is a critically important subject of inquiry. However, we will defer examination of this issue until a later report. That and other issues that differentiate among households will be referenced and references to other reports will be provided, but the central focus will be on income and wealth categories. We will consider how financialization may be undercutting small business lending and small business formation, as well as state and local finance—two critical pillars of job creation and economic development across the country. Moreover, the effects of financialization on investment in sustainability of the economy, a rational and critically important endeavor that remains vastly undercapitalized, will be analyzed.

III. FROM FINANCE TO FINANCIALIZATION

Defining Financialization

“Financialization” generally refers to the massive increase in financial transactions in the United States and in other nations over the last several decades. Several definitions of the term have been suggested:

- “[T]he transformation of one dollar of lending to the real economy into many dollars of financial transactions.”²³
- “[T]he increasing importance of financial markets, financial motives, financial institutions, and financial elites in the operation of the economy and its governing institutions, both at the national and international level.”²⁴
- “[T]he growing importance of financial activities as a source of profits in the economy.”²⁵

Each of these definitions describes changes to the financial system in the recent past that can be observed, and these changes can easily be connected to the financial crisis that devastated the world economy in 2008. However, they are not particularly helpful for advancing our understanding of how the obvious increase in financial activity interacts with other economic forces to generate negative outcomes for most Americans and our society as a whole.

These definitions leave open a number of important questions. It is notable that the financial sector has grown relative to the rest of the economy (see Figure 4, above), accelerated by multiple phases of de-regulation, and it is also notable that other, related economic changes have happened over this period. But this does not explain structural causality. Is increased financial activity good or bad for the economy? How can we measure whether the increase of activity is good or bad? In the 2008 banking crisis, for example, did the increased activity simply enlarge the impacts of the crisis? Was the increased activity implemented imprudently or is it inherently harmful? The answers to these questions shape how we think of the financial system and the policies adopted to regulate it.

We need a definition of financialization that allows for qualitative inquiry, going beyond previous definitions that focus on the size and

scale of the sector and its various components.²⁶ More specifically, financialization should be defined and examined in terms of its qualitative consequences at the household level and for the economy as a whole.

To understand financialization qualitatively, we must first understand how a properly organized and functioning financial system should work. As noted earlier, the core function of an effective financial system is capital intermediation that generates broadly shared prosperity and sustainable growth. The financial sector serves two other purposes—money movement and risk transfer²⁷—but capital flow intermediation drives the economy and determines the direction of economic activity by prioritizing investment. A financial system that costs the economy more than the benefit provided and/or fails to allocate investment so as to serve the public's interest is inefficient.

Capital intermediation is the process of matching potential investment funds with investment opportunities offered by businesses, governments and households:

The main function of finance is to transfer resources from actors that have it to those that need it. In this process, financial intermediation pools the risks, provides liquidity and reduces information asymmetries that impede the transfer of funds. According to neoclassical models of growth [i.e., models assuming rational decision making to maximize profit and utility based on available information], financial intermediation should enhance growth in two ways: it remunerates savers according to their risk aversion, thereby encouraging saving and investment; and it allocates funds according to their best use. So long as financial intermediation facilitates the efficient allocation of funds, more finance should trigger more growth.²⁸

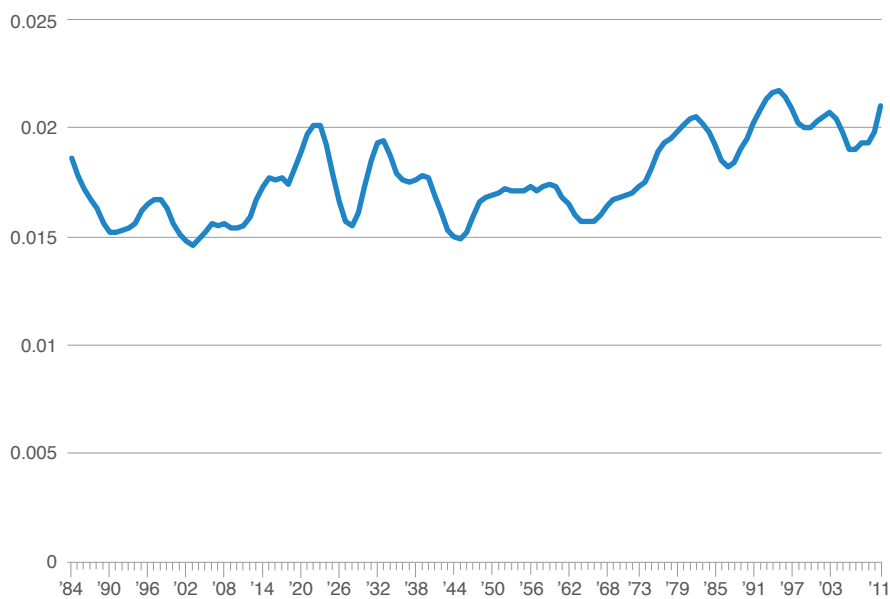
The intermediation system allocates private capital among various potential uses in the economy by putting prices on multiple investment opportunities, be they business, government or household opportunities. This is our way of differentiating value so that investments are prioritized. The financial sector firms occupy a privileged position as the intermediaries or middlemen who reconcile mismatched needs of buyers and sellers of capital; that is to say, they are a lubricant for inefficiencies. For that, they extract profit that is an element of the cost of intermediation. Therefore, the

greater the potential inefficiencies, the greater the potential profit. Like any essential service with potential market power (as will be described below) such as a utility, they are subject to regulation and oversight. Otherwise, they are incited, for example, to use market power to create inefficiencies so that they can profit from reconciling them.

The fact that the financial sector has grown dramatically relative to the rest of the economy means that it is engaging in profit-generating activity that does not fulfill its *social* purpose (*i.e.*, to efficiently facilitate growth in the non-financial sector of the economy). If it were fulfilling that purpose, the economy as a whole would grow proportionately to the financial sector. New York University economist Thomas Philippon has measured the efficiency of the financial sector in terms of effectiveness of intermediation, constructing an index measuring efficiency over more than 120 years.²⁹ Philippon found, much to his surprise, that technology has not made the process more efficient. In fact it has become *less* efficient in the last 35 years despite rapid advances in technology (see Figure 6).

This should not have surprised him. Indeed, agents within the financial sector have become extraordinarily efficient in the extraction of value from activities that do not aid, and actually

Figure 6. Quality Adjusted Cost of Financial Intermediation



Source: Thomas Philippon, September 2014

impair, the capital intermediation process so that the system has become less efficient, measured by its value to the economy. In the context of financial market activity, banks, hedge funds and other major players in the financial sector (capital intermediaries) have benefitted from advances in technology and quantitative analysis far more than other economic actors, such as investors (capital suppliers) as well as businesses, governments and households seeking investment capital (capital users). Compared with others in the markets, the financial sector can acquire more information and act on it faster and it can deploy far more capital to back up its activities.

The perceived mission of the firms in the financial sector is to make as much money as they can, not to make the system work for the public's good. For the last 35 years, the prevailing view is that the mission of the financial sector is aligned with the public good, a belief founded on misguided and naïve analytics. Academics and policy makers believed that information was so widely shared and that competition in the financial markets was so effective that they were virtually infallibly efficient.³⁰ That belief is simply false.

Making the system work for the broad public benefit is the job of the government. Notwithstanding the view that prevailed since 1980 (and lingers, still embedded in beliefs systems), without robust regulatory limits on the activities of the financial sector mandated by government, the intermediaries will continue to work in their own interests even though it injures the public.

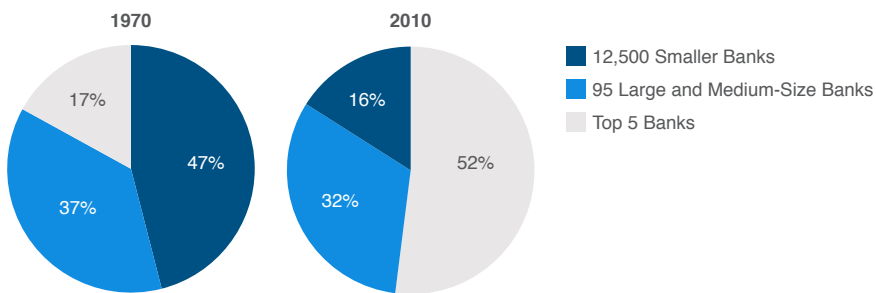
Economic Rent

The profit from financial activity that does not aid in capital intermediation is “economic rent”—profit yielded from economic power, not market competition.³¹ The financial sector is positioned to generate this rent by virtue of its status as an intermediary of capital flows.³² That is a privileged position long supported by governments, provided that the firms that profit from the privilege comply with rules. Because capital intermediation is an essential function for the markets, we certainly need a financial sector, but only to the extent that the income it generates is offset by value to the society.

To exploit this status, the financial sector must have market power that impairs competition and is enabled by weak or non-existent regulations. Simply occupying a privileged position does not generate rent unless the rules and the circumstances allow the occupant to deploy market power to generate rents. Deregulation gave license to the exploitation (it actually encouraged it): elimination of restric-

tions against capital market activities by depository banks and others created the incentives and means for rapid and pervasive concentration of the banking sector and the enormous capital bases that emerged after 2000; and rapid advances in technology and quantitative analytics supercharged the asymmetric market power. The concentration of the banking sector is easily seen using traditional methodologies (see Figure 7). The effects of asymmetric technology and quantitative analytics are more obscure. These factors increase the power of large and sophisticated financial firms in secondary trading markets and in over-the-counter (*i.e.*, off-exchange and less liquid) markets. But the attendant complexity caused by technology and advanced quantitative analysis actually makes market power more difficult to discern. Nevertheless, analysis of specific practices using real market behaviors and data can identify the existence of market power in specific finance sector activities.³³ And, as we shall see, aggregate rent extracted by the financial sector can be measured.

Figure 7. Assets Held by Banks: Concentration



Source: Dallas Federal Reserve

Sources of Financial Sector Rents

The disproportionate expansion of the financial sector within the economy during the period of financialization has been dramatic. The growth has been concentrated in, but not limited to, two areas of activity. The first is the tremendous increase of capital intermediation in the trading markets, and the second is vastly expanded trading in derivatives.³⁴

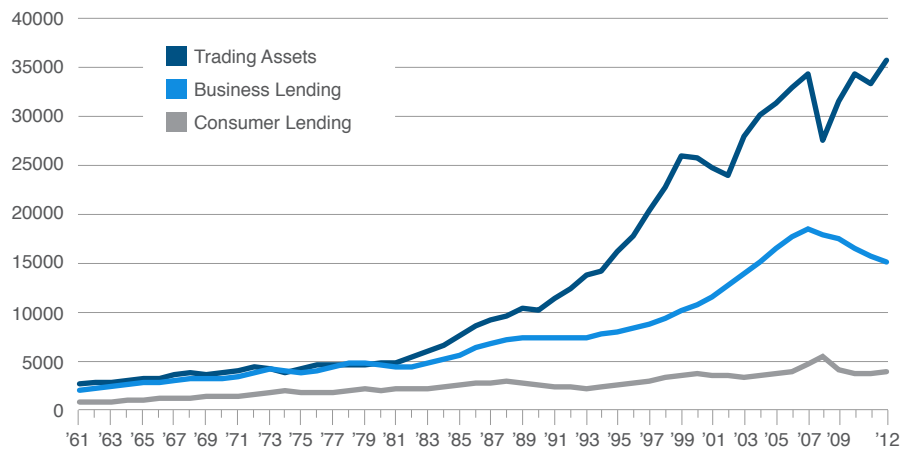
Capital intermediation *via* the traded markets has become the dominant form of intermediation, displacing conventional bank lending (see Figure 8). Trading refers to the secondary markets, not the primary markets into which new shares of stock and bonds are offered and sold to raise fresh capital. In secondary markets, previously issued securities are made available for purchase or sale

on a relatively continuous basis at prices that are, to some extent, related to widely accessible price signals (for example on a trading screen). The secondary markets are ancillaries to the primary markets.

Secondary market trading is essential to capital intermediation through the primary markets. Investors rely on the continuous price signals provided by the secondary market to evaluate their holdings. The reliability of the secondary market as a source of liquidity to convert the holdings to cash if need be is also valuable. Thus, secondary market trading is a significant element of capital intermediation.

The value of these secondary markets is a function of their liquidity—a market is liquid if buying or selling interest at predictable prices is readily available. If a class of securities has a highly liquid secondary trading market, it is valued more highly by investors. As a consequence, it is believed that a business, government or household can access the related new issue primary market at a lower cost. This is true except to the extent that rent extraction in the secondary market (primarily from asymmetries in technology, quantitative analytics and capital to back trading) and the fees charged to manage portfolios to take advantage of liquidity, diminishes the positive value of liquidity. Previous Demos research has described ways in which technology applied in secondary market trading has extracted value from the capital intermediation process.³⁵

Figure 8. Trading Assets, Business Lending and Consumer Lending, 1960-2012, in Billions



Source: Author's Calculations, Federal Reserve, Financial Accounts of the United States

A second major source of rent is derivatives. The derivatives markets have grown from a trivial volume to more than \$60 trillion per year in the United States and more than twice that worldwide. Derivatives are often described as risk mitigation devices, but they are better viewed as integral to the capital intermediation process.³⁶ The risks and value associated with derivatives are tremendously difficult to measure. The financial sector's relative sophistication constitutes a form of market power that facilitates extraction of rents.

Since 2008, the growth of the financial sector and market power of firms within the sector have been sustained and enhanced by the unprecedented monetary policy of the Federal Reserve to maintain interest rates near 0 percent. Initially, this had the dual purpose of lowering the cost of capital for economic growth and allowing the banking sector to “earn its way out of” the losses incurred at the time of the crash. The banks could borrow inexpensively and earn a large spread on investments funded by the cash. Clearly, a large portion of this liquidity was deployed by the banks to support financialization activities (see, for example, the post-2007 data in Figure 8). Despite a seemingly healthier banking system, the Fed continues to pursue this policy because of weak employment. Yet much of the liquidity provided by Fed policy is still funneled into the business of financial rent-seeking and financialization. Even so, it is clear that the massive growth in secondary market trading and the derivatives business is primarily a continuation of financialization trends that began much earlier. It is enhanced by Fed monetary policy, but it predates it and will persist after the policy runs its course.

Breadth of Financialization and its Effects

The process of financialization and the attendant rents have undoubtedly driven the growth of the financial sector. But this tells only a part of the story. Financialization has permeated many elements of society. First and most dramatically, it has reshaped the financial sector for more than three decades, but it has also affected the non-financial sector, as well as households, incorporating them into the financialization of the economy.

The Non-financial Business Sector

Somewhat outside of the financial sector in traditional thinking, but actually deeply embedded in it, are the large non-financial companies. Their activities are deeply influenced by the shareholder value theory of corporate management and by peculiar incentives of managers whose income and wealth are, increasingly, tied up in

stock options and restricted ownership of shares of their employers. The shareholder value theory and management incentives as they have emerged are directly related to financialization. As described in greater detail below, these organizational realities have caused many firms to behave more like very specialized hedge funds whose performance is measured continuously by the market value of their shares. Therefore, the scope of financialization, particularly regarding its effects on employment and inequality, must include the increasing absorption of non-financial firms in hedge fund-like activities, seeking financial returns for shareholders and managers.

Households

Financialization has migrated into areas that directly affect individuals and households. One need only consider the changing approach to retirement security. Defined benefit pension plans have largely been displaced by much riskier defined contribution plans and individual retirement accounts. Workers are increasingly exposed to the dynamics of the financial markets through retirement savings. Some want to go further by carving out private investment options in Social Security.

One important example of household financialization is the real estate bubble that burst in 2007. Many households took on mortgages far beyond their means, effectively banking on ever-rising home values. They were encouraged to do so by mortgage originators that were incented to feed the highly profitable and voracious mortgage securitization business. Households increasingly held large and leveraged derivative positions in real estate market prices. Ultimately, the bubble burst and the securitizations plummeted in value. The damage to the economy was massive, especially to lower income households and people of color.³⁷

Higher education is another striking example. Steep declines in state funding for higher education have driven up tuition costs and fueled an explosion of student debt. Increasingly, students are driven to go through the analysis of whether a college education is “worth it” by comparing the leverage needed to finance higher education with the effects of education on their earning capacities; the social benefits of having an educated population are no longer part of the equation.

While the direct effects of financialization on households and individuals are not considered in this report, other Demos research examines causes and impacts of credit card debt, student debt, and other household manifestations of financialization.³⁸

Social Costs and Benefits of Financialization: How Much Rent is Extracted?

Financialization, we have stressed, is the increase in financial market activity that does not improve, and may impair, the efficiency (*i.e.*, net cost to the economy) of capital intermediation. Capital intermediation is efficient if investment generates positive social outcomes and a higher standard of living across society. Conversely, an inefficient financial system is one that starves productive investment and generates net social costs, which more or less describes what we have today.

Is it necessarily a bad thing that the financial sector is extracting economic rent without corresponding benefit to the economy? The answer is yes.

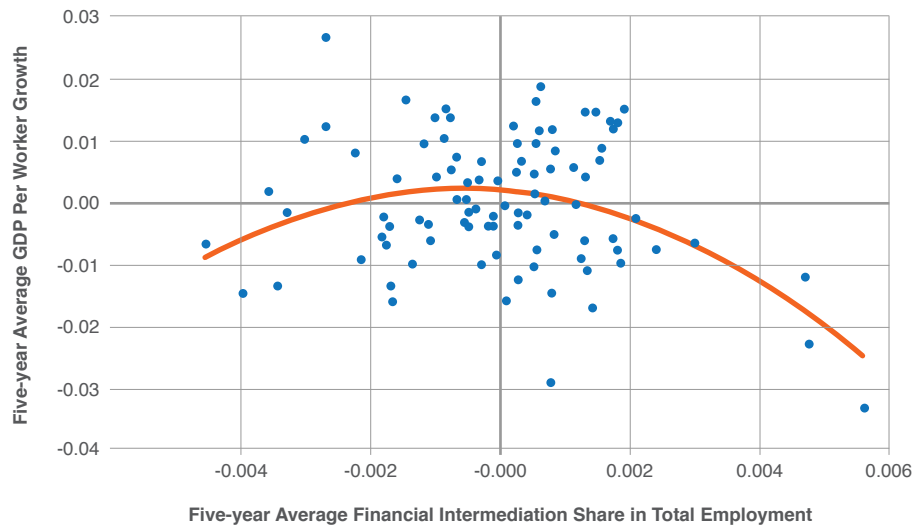
As a threshold matter, it increases the risk of catastrophic panics. All financial activity of the financial sector involves risks to the system. The business of the financial sector is to absorb risks—counterparty credit risk, the risk of different types of interest rates (long term fixed rates vs. floating rates), differences in currency values—and to earn a profit for doing so. When things go wrong, firms within the financial sector take losses. If the losses are large enough, confidence in intermediaries is shaken and a panic, even a financial system crisis, can be triggered. This is a cost that always attaches to all financial sector intermediation activity. As a result, more activity means more cost in the form of systemic risk.

However, this cost of systemic risk may be offset by other benefits, specifically if the risky activity makes the capital intermediation system work more efficiently in the public's interest. But that is not currently the case. The value extracted by US-style financialization in excess of its social value is most certainly a drag on the economy.³⁹ Figure 9 illustrates findings by Checchetti and Kharroubi that financial sector growth benefits GDP per capita in early stages of development, but is a drag in more developed economies. The United States, with its highly developed economy, is on the extreme downward side of the curve reproduced below.

Obviously, the financial sector element of the economy grows as the sector becomes more profitable and this increases GDP. The consequences of financialization described by Cecchetti and Kharroubi are caused by the following relationship: the productivity growth associated with increasing financial activity is outweighed by the effects of that activity on the rest of the economy.

Some detrimental activities (for example, high-frequency trading or mis-priced derivatives) can be identified and their costs

Figure 9. Financial Sector Share in Employment and Growth



Source: Cecchetti and Kharroubi, 2012

measured, but others are far more difficult to quantify. For instance, some secondary market trading provides useful liquidity, but excessive trading that does not provide liquidity to investors can be “too much of a good thing.” However, the overall amount of value extraction can be measured by inference, much as the existence and characteristics of an indiscernible far-away planet can be measured by its effects on other nearby objects. By determining what the cost of capital intermediation at current levels should be and comparing that figure with actual costs, we can arrive at an estimate of net value extraction and correlated inefficiency due to financialization.

Using this methodology, the scale of rents extracted by the financial sector as a result of financialization is enormous. Philippon has estimated that the misallocation of resources related to the financial sector has reached \$280 billion per year.⁴⁰ If we use this figure to represent rent extracted through financialization, it can serve as an estimate of the earnings generated by financialization.⁴¹ A recently projected average price/earnings ratio in the U.S. stock market for financial firms is 15.5,⁴² meaning that the average market capital of a company is 15.5 times its earnings. In other words, a dollar of earnings translates into \$15.50 of share value in the markets. At this P/E ratio, financialization has an inferred market capitalization of over \$4 trillion (15.5 x \$280 billion). That is approximately the same size as the aggregate market capitalization of the 15 largest non-financial firms in the United States and is more than 15 percent of aggregate market capitalization of U.S. businesses.⁴³ For analysis, it is useful to view this as an enormous “Financial

Rent-seeking Business” that operates alongside the historically familiar basic capital intermediation business of the financial sector.

As large as this is, it does not capture the full cost of financialization to the economy. Philippon’s estimate is the difference between what the financial sector should be earning if operating efficiently and what it does earn. This leaves out two major second level economic costs:

- Financialization has migrated into the non-financial sector, stunting long-term growth by incenting corporate behavior that favors short-term share-price tactics over investment in enterprise growth and in research and development. These effects of financialization exact large opportunity costs that undercut job quality and job creation and ultimately reduce long-term growth. The cost of extended inequality to the economy has recently been measured.
- Financialization is also closely and causally related to rising inequality at the household level, in part because of the ways it affects growth. Such inequality has direct effects on the well-being of households and secondary effects on economic growth, due to suppressed demand. Ultimately, it has severe affects on the political economy.

These second level costs are discussed in detail below.

IV. FINANCIALIZATION IN SOCIETY: INEQUALITY AND THE DYNAMICS OF CAPITALISM

Rising inequality in the United States and, to a lesser extent, in other developed economies, is well-documented. The groundbreaking work of Thomas Piketty and Emmanuel Saez⁴⁴ demonstrates that we are living in a new era of extreme inequalities of income and wealth, at levels not seen in more than a century. Beyond the cost to the economy in terms of diminished productivity growth, such extreme inequalities may pose a threat to the sustainability of social systems and to democracy itself.

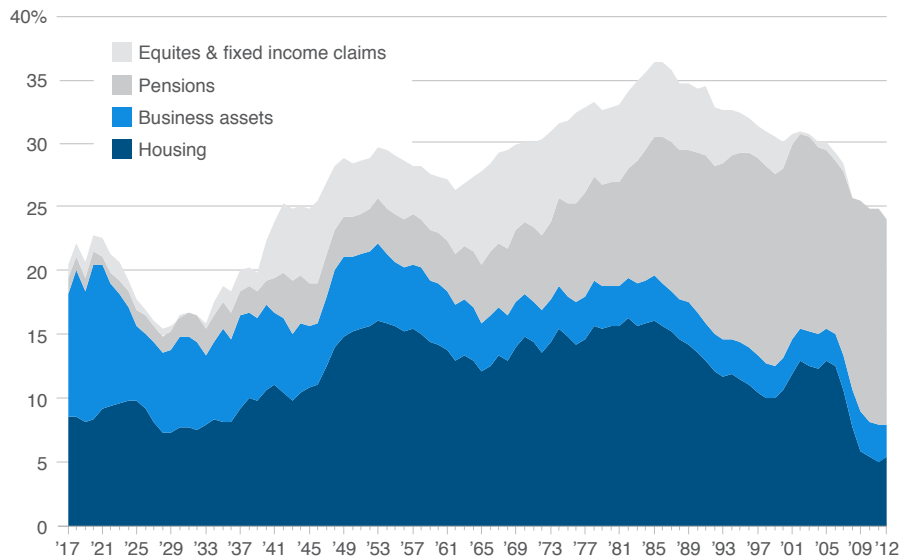
Recent research by Saez and Gabriel Zucman examines historical trends in wealth inequality in the United States.⁴⁵ They show how the share of total wealth in the United States held by the lowest 90 percent of households (assets net of liabilities) has shrunk by more than one-third, from 37 percent to 24 percent since the mid-1980s. Within this group, the bottom 45 percent has virtually no wealth. During this period, they find that the real growth rate of wealth for the bottom 90 percent was 0.1 percent annually. The rate of real growth for the top 10 percent of households was 27 times higher. It is striking that the real wealth growth rates in the last 30 years for the top 10 percent and bottom 90 percent are comparable to the years 1917-1929; and that the relationships in the years 1929-1986 are approximately the inverse.

Some of the internal numbers in Saez and Zucman are particularly enlightening. They conclude with respect to the top 10 percent that “almost all of this increase is due to the rise of the share of wealth owned by the 0.1 percent richest families, from 7 percent in 1978 to 22 percent in 2012, a level comparable to that of the early twentieth century.” The top 0.1 percent represents 160,700 families with an average wealth in 2012 of \$72.8 million.

The composition of wealth identified by Saez and Zucman, for the bottom 90 percent (see Figure 10a) and for the top 0.1 percent (see Figure 10b), tells a meaningful story. As for the bottom 90 percent, small but measureable securities holdings have virtually disappeared and business assets (mainly interests in small businesses) have shrunk to a small amount. Housing assets, though much diminished to levels lower than in 1917, remain a significant holding. Pensions,

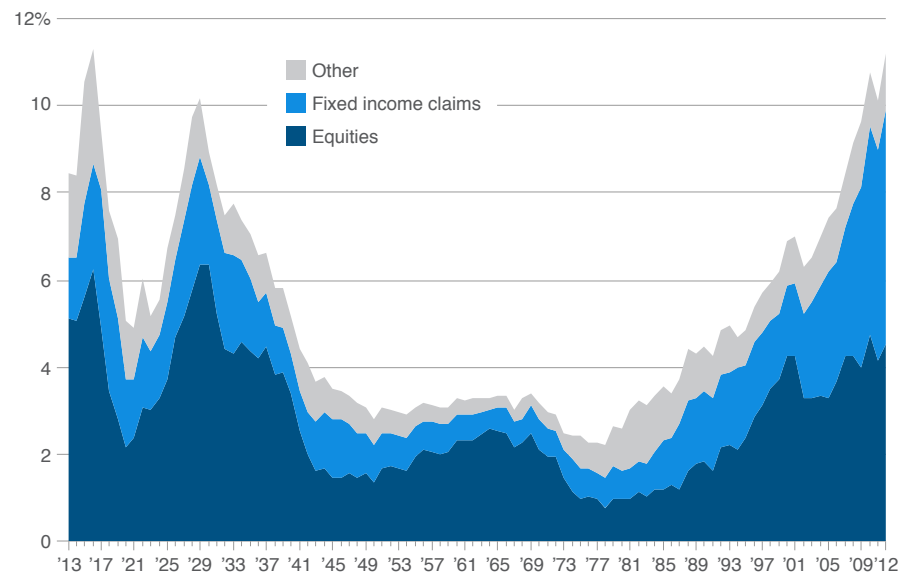
a category which includes retirement accounts, are the major source of wealth. For the top 0.1 percent, in contrast, financial assets are the dominant holdings and represent percentages of their wealth unseen since the first decades of the 20th Century. Almost all of the average \$72.8 million wealth portfolios of this category is devoted to stocks and bonds.

Figure 10a. Composition of the Bottom 90% of Wealth Share, 1917-2012



Source: Saez and Zucman, 2014

Figure 10b. Composition of the Top 0.01% of Wealth Share, 1913-2012



Source: Saez and Zucman, 2014

The Cost of Inequality

The increase in inequality certainly involves reduced income and wealth of the lowest 90 percent of American households. They accrue a lower proportion of the economic pie. However, new research from the Organization for Economic Co-Operation and Development⁴⁶ indicates that increased inequality can cause the economic pie to be smaller than it otherwise would be.

The OECD study measures the effect on GDP of numerous countries of growing inequality (measured by increases of the Gini coefficient) over the period 1985-2005. The effects occur with a lag so they are measured over the period 1990-2011. The study finds that the increasing inequality in the United States knocked between 6 and 7 percentage points off of the US GDP over the period of analysis. For comparison, this is larger than the decline in GDP during the Great Recession.

The Dynamics of Inequality

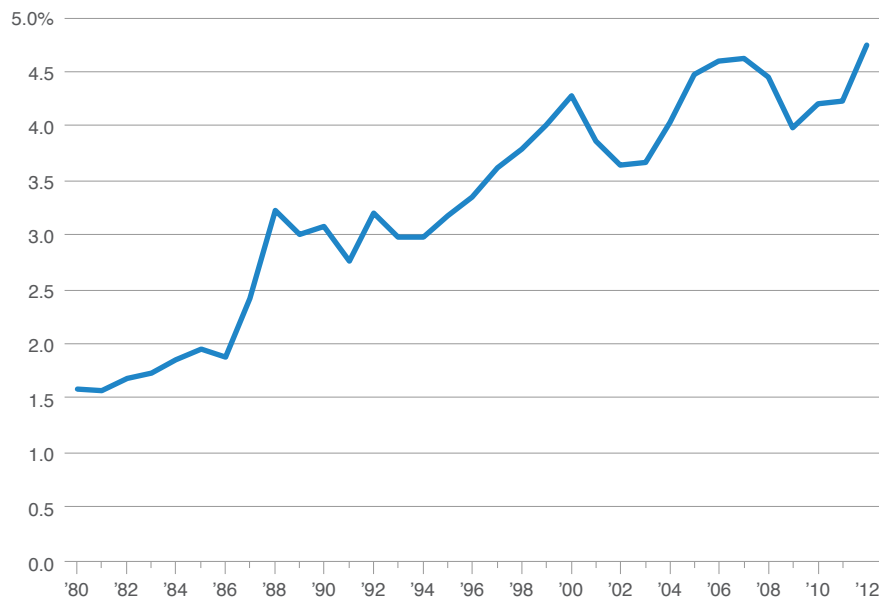
Thomas Piketty's epic 2014 book, *Capital in the 21st Century*, builds on his earlier research with Saez and examines the dynamics of these wealth inequality relationships for several developed economies. *Capital* is based on a relatively simple historical observation: if returns on capital investment are materially higher than economic growth for an extended period, the disparity between the very wealthy and everyone else will grow. Piketty treats wealth and capital as interchangeable, a premise that has been vigorously disputed. The criticisms may or may not be valid, but the value of wealth and capital are clearly related.⁴⁷ The dispute has no bearing on the overall findings of this report.

The disparity occurs because the wealth and incomes of the vast majority of households depend on earnings from labor that, at least until very recent history, grew along with the economy (typically measured by GDP, broadly the value produced in the US, which is related to national income, the value produced by US citizens). Until the mid-1980's, the labor share of all income in the United States was consistently about 64 percent. Since then, the labor share has declined to 58 percent (with the capital return share increasing from 36 percent to 42 percent)⁴⁸ Moreover, labor productivity increased by 85 percent since 1980, while real hourly compensation increased by only 35 percent.⁴⁹ This phenomenon was evident throughout the developed economies.

These dynamics of inequality, particularly around the declining labor share of national income, appear even starker when the

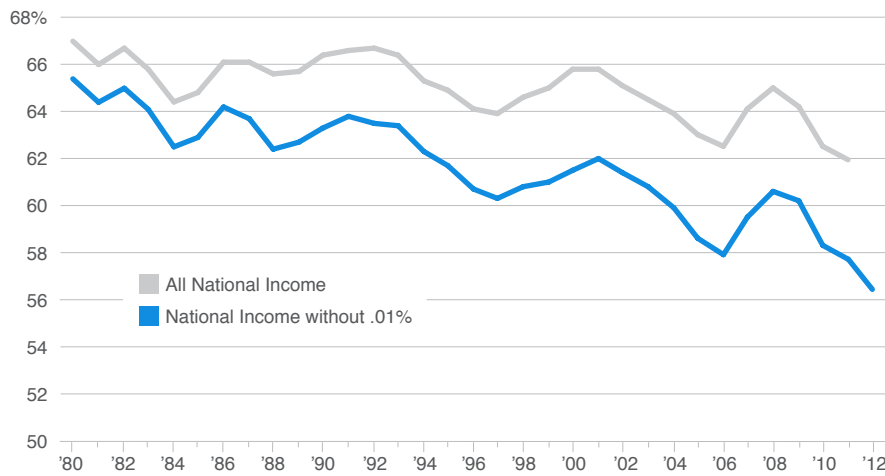
sharply increased compensation of “supermanagers” (individuals that earn extraordinarily high compensation, as described below) is separated out from the incomes of the vast majority of workers.⁵⁰ Since 1980, the portion of labor share of national income attributable to the highest 0.1 percent earners, which in large part represents the supermanagers, has been growing (see Figure 11a). As a result, the portion of the labor share of national income attributable to everyone else, but for the highest 0.1 percent earners, has fallen

Figure 11a. Share of National Labor Income Accruing to Top .01%, 1980-2012



Source: Piketty and Saez, 2012

Figure 11b. Share of National Income Accruing to Labor, 1980-2012



Source: Author's Calculations, Bureau of Economic Analysis, Piketty and Saez

more than the overall labor share (see Figure 11b). The fall in overall labor share over the period was 7.5 percent. In contrast the fall in the labor share net of the income of the 0.1 percent highest earners was 13.8 percent. The data set is over the period commencing 1980, the start of financialization among other things, and 2011.

While most households rely almost entirely on wages from ordinary employment, the very wealthy benefit disproportionately from returns on capital investment. Much of this return is generated by investment of huge amounts received as compensation by the supermanagers. If the rate of return on capital investment persistently exceeds the growth rate of aggregate output (and its household corollary, labor incomes), the difference compounds and inequality becomes self-generating. Ordinary income lags further and further behind investment income. Piketty asserts that wealth eventually becomes dynastic, as the privileged minority passes wealth to subsequent generations, creating an enduring class of wealthy individuals and families. While some argue that dynastic wealth may not arise, the mere possibility suggests important distortions in the economy.

Given the diminished correlations between labor share of income and growth, issues related to income inequality are better viewed in terms of labor share than GDP. This is especially so because the aggregate labor share of income would be contracting even more sharply were it not for the skyrocketing “incomes” of the financial supermanagers in the top 0.1 percent of households. This small group is not only paid enough to skew results; in fact, as we will argue below, these payments should be considered returns on capital investment and not income from labor at all. Ironically, a key driver of today’s rising inequality is hiding in plain sight within the declining labor share of national income. While Piketty’s thesis is based on GDP and does not consider the falling labor share of the non-supermanagers, his conclusions would actually be even more persuasive had he emphasized labor share of income more.

Piketty shows how growing concentrations of wealth, combined with a slowing of the growth rate of national output, have generated spiraling inequality. He describes how annual returns on capital investment have historically been in the range of 5-7 percent, and that holds true today. Importantly, he postulates that general economic growth in the developed economies will remain relatively low over the long run, in the range of 1-1.5 percent annually, well below these capital investment return rates, for the foreseeable future.

The growth rate he foresees is much lower than the rates experienced in the decades following the Second World War, a period in which growth rivaled returns on capital investment and income and wealth inequality shrank. From the period beginning in 1950 and ending in 1980, the average U.S. GDP growth rate was 3.87 percent.⁵¹ (And during that period, the labor share of aggregate income was 64 percent, declining thereafter to 58 percent). Piketty sees that period of high growth as an anomaly. On a global scale, capital assets had been destroyed by the two world wars and the Great Depression; subsequently, high growth was caused, in his view, by rapid recovery from the massive asset destruction, sparked by the war economy. The capital asset base recovered from the destruction somewhere around 1980. Piketty sees a new “normal” growth rate of 1-1.5 percent, well below historic returns on capital investment. (The average annual U.S. GDP growth rate for the period from 2005-2013 was 1.49 percent. If the increased growth rate so far in the first three quarters of 2014 is replicated in the fourth quarter, the average rate from 2005 would increase to 1.59 percent.) Many commentators have asserted that the growth rates of the post war period were not an anomaly and were instead the outcome of government policy. Nonetheless, low growth and higher returns on capital investment are evident in today’s economy.

Clearly, policies changed as the pillars of the Great Compression were weakened significantly. In addition, commencing with the Reagan/Thatcher transformation of the relationship between government and the private sector, interests in significant assets were transferred from the public sector to the private sector, especially through privatizations in various forms. Direct transfer of public enterprises and assets to the private sector was one form of privatization. This was more prevalent in the United Kingdom. Particularly in the United States, deregulation, entailing a substantial reduction in the assertion of the public’s interest in businesses *via* government taxation and regulation, was another (less direct but no less effective) form of privatization. Governments became “poorer,” and the private sector became “richer,” not through organic growth but through transfer of ownership and/or control. It was as if Reagan and Thatcher sought to tee up the world economy for Piketty’s “inevitable” rise of wealth disparity. Piketty does not address this great asset transfer, which is unfortunate since it was a choice rather than an inevitable consequence of capitalism. He might have said that, once the assets lost in two world wars and the Great Depression were restored, governments pushed them out to the private sector.⁵²

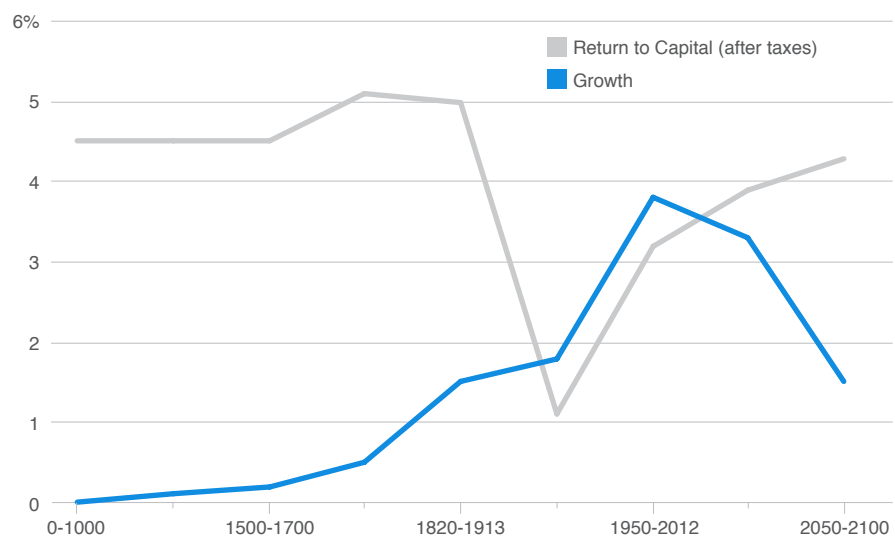
In fact, the policies embodied a systematic philosophy of superior market efficiency, which is now discredited even in theory let alone fact. At any rate, whatever the analysis or motivation, it is clear from Piketty’s data that the vast majority of the assets transferred ended up in the accumulated wealth of the wealthiest households.

Piketty asserts that low growth (roughly corresponding to stagnant incomes for the vast majority of the population) and relentlessly accumulating wealth are the norm for capitalist economies, and that we have simply reverted to the norm. His data present a chilling image of the future (see Figure 12), and his prediction is decidedly dystopian: “The entrepreneur inevitably tends to become a rentier, more and more dominant over those who own nothing but their labor. Once constituted, capital reproduces itself faster than output increases. The past devours the future.”⁵³ In this scenario, developed economies will revert to something like the *rentier*-dominated structure of capitalism in the Gilded Age.

Eventually, if growth rates remain at low levels, the margin of capital returns over growth rates will persist until wealth accumulation reaches an inflection point at which the opportunities to invest wealth are saturated and investment returns become very low.⁵⁴ Adapting Piketty’s words, the future will be fully consumed. Piketty concludes that wealth disparity could become extraordinarily high before that inflection point is reached.⁵⁵

The phenomenon of increasing wealth disparity is made much worse because employment based incomes have skyrocketed for

Figure 12. Return to Capital and Growth Rate of the World, 0-2100



Source: Thomas Piketty, “Capital in the 21st Century,” 2014

the privileged few, even in the low overall growth environment, swelling the fortunes of the very wealthy. In prior epochs, one became wealthy by inheritance of land or businesses or by marrying into a family that held land or business assets. Nowadays, wealth is more likely built from enormous compensation paid to executives of businesses. Piketty refers to the recipients of these incomes—financiers and high corporate executives mainly—as the “supermanagers,” a category that will be discussed in great detail below.

Much of what Piketty asserts is undoubtedly true. Based on the remarkably consistent historical data he presents, future returns on capital at the 5-7 percent levels seem reasonable. Growth rates have also been declining in the last 35 years. Moreover, income and wealth inequalities have clearly been increasing. If growth at 1-1.5 percent annually is the consistent result and the new norm, wealth inequalities, accelerated by the rising earnings of the supermanagers, will escalate and become increasingly entrenched. The difference between the economy of the post-war period and Piketty’s vision of the future is the growth rate. Therefore, the most important question regarding his view of the future is whether growth at the low levels he foresees is inevitable at least for a long period; and even if it is, whether that should alter efforts to reduce income and wealth inequality in the near term. We will turn our attention to financialization and growth after considering its effects on accumulation and capital returns.

V. FINANCIALIZATION AND INEQUALITY: WEALTH ACCUMULATION AND CAPITAL RETURNS

Financialization interacts with both sides of the equation that drives Piketty's conclusions: the accumulation of wealth *via* capital investment returns, on the one hand, and low growth on the other. Although Piketty asserts that wealth inequality is inevitable in a capitalist economy (at least without a comprehensive, worldwide tax on wealth that redistributes huge sums to lower wealth echelons), he explicitly and summarily rejects the notion that the structure of the financial markets is in any way a factor. He dismisses this possibility by bowing to the god of efficient markets.⁵⁶ In his view, inefficiencies are too short-lived to affect his conclusions. Inefficiencies in capital intermediation would be quickly squeezed out by speculators. The analysis in this report indicates that Piketty's view is misguided.

In fact, financialization is structural and inefficiencies are persistent. Reducing its force would slow income and wealth inequalities even if Piketty were correct in his assertion of their inevitability in a capitalist system. In a slightly less dystopian interpretation of the data, de-financialization could fundamentally alter the slow growth side of his equation while limiting the supermanager incomes and ensuing wealth concentrations on the other side. Conversely, ignoring financialization may be the very thing that seals our dystopian fate on current trends.

Financialization and Capital Investment Accumulation—the Supermanagers

Piketty and Saez/Zucman identify how the accumulation of wealth in today's economy is, in large measure, driven by extraordinary levels of compensation at the very highest income echelons. The emerging plutocracy described by them is distinguishable from the pre-1914 Gilded Age, but Piketty in particular sees both as representative of the norm for capitalism. The wealthiest in the Gilded Age (the *rentier* class) lived off of rents from owning land and other capital assets, such as factories, transportation systems, and natural resources. Today's wealthiest class is different:

To a large extent, we have gone from a society of rentiers to a society of managers, that is, from a society in which the top centile is dominated by rentiers (people who own enough capital to live on the annual income from their wealth) to a society in which the top of the income hierarchy, including the upper centile, consists mainly of highly paid individuals who live on income from labor. One might also say, more correctly (if less positively), that we have gone from a society of super-rentiers to a less extreme form of rentier society, with a better balance between success through work and success through capital.⁵⁷

The soon-to-be dynastic wealth is currently being accumulated in the form of extraordinarily high levels of income in the top 1 percent and especially in the top 0.1 percent. While this trend is visible throughout developed economies, it is most prevalent in the Anglo-Saxon nations. More than half of the super-wealth of the world is located in the United States, the United Kingdom, Canada and Australia.⁵⁸

A relatively small number of the upper 0.1 percent echelon—5 percent according to Piketty—derive their incomes primarily from entertainment and sports.⁵⁹ They are not the driving force behind growing wealth disparity. He finds that 25-35 percent of the 0.1 percent have large passive holdings and have already achieved dynastic wealth. From the perspective of a change in inequality going forward, this group is important, but far less important than the balance of the top 0.1 percent whose numbers and wealth are increasing fastest. This category of the elites are the supermanagers who derive their income from compensation and they are the emerging superwealthy.

In the United States, about 20 percent of the top 0.1 percent are financial sector supermanagers. The financial sector supermanagers are often compensated by bonuses that are calculated based on the profitability of their firms and of their organizational sub-units within the firms. As a general rule, about one third to one half of the firm's earnings after expenses go to bonuses and the balance accrues to shareholders.⁶⁰ Other financial sector supermanagers, especially those who manage hedge funds and private equity funds, are compensated with "carried interests," or shares in the profits of the portfolios of investment that they manage. In hedge funds, the typical formula is a 2 percent ownership interest in the fund and 20 percent of its profits, both allocated among the fund managers,

though some reduction of these amounts, largely for newer hedge funds has occurred.⁶¹

Thus, financial sector supermanagers earn “salaries” calculated to be similar to investment returns from ownership interests in the firm; however, for the most part, they do not actually invest in ownership interests nor are they granted them. (We recognize that fund managers often receive a lesser portion of their profit-based payments in ownership interests and the very highest levels of executives may also receive stock options or grants of stock. Moreover, possibly to address criticism of excessive bonuses, some banks have recently used restricted equity as compensation for a range of executives. Bonuses remain major motivators, however. The analysis in this report will assume that the financial sector supermanagers have been and will continue to be incented largely by profit-based bonuses and carried interests and will not consider these other forms of compensation further.)

The incomes of the financial sector supermanagers have grown faster than other supermanagers over the last 35 years. As of 2005, about 18 percent of the top 0.1 percent in terms of income were from the financial sector. In the years between 1979 and 2005, when incomes of the top 0.1 percent grew at an unprecedented rate, the share of national income going to financial sector supermanagers more than quadrupled, increasing from 0.34 percent to 1.45 percent. Of all of the major professional categories included in the top 0.1 percent, this was the largest percentage increase.⁶²

An even larger number of supermanagers, between 40 and 50 percent of the top 0.1 percent, manage businesses in the non-financial sector. They are predominantly compensated by transfers of participations in the future profits of the businesses either through options to purchase stock at some point in the future based on today’s prices or through outright grants of stock transfers with restrictions on transfer that lapse over time.⁶³ In both cases, they obtain an interest in firm profits that they cannot realize until a later date. Like their supermanager cousins in the financial sector, their incomes are overwhelmingly indexed to returns from ownership interests in the firm. The predominant form is different (stock options and restricted ownership as contrasted with profit sharing bonuses and carried interests) and, as we shall see, this difference matters.

Financial Sector Supermanagers

It is insufficient to say that financial sector supermanagers granted large bonuses or carried interests based on the performance of their firms earn their enormous incomes as meritocratic compensation for their labor. It is far more accurate to say that the supermanagers are allowed to “rent” holdings in the capital of these firms and thereby accumulate vast wealth from investing the firm’s capital and sharing in the returns.⁶⁴ The economic rents they accrue are like sub-rentals. Many accumulate so much financial “capital” income in one lifetime that it becomes dynastic (*i.e.*, self-sustaining across generations without additional labor, as income is invested).

It should not matter that the financial sector supermanagers compensated by bonuses or carried interests do not technically own an equity stake. By comparison, if the price of a share of stock increases ten-fold over a decade, the original price paid for the stock does not matter much. The accreted value and the returns paid during the holding period are the most important value. Another clear example is stock options. Typically, holders of stock options do not need to exercise their rights by purchasing shares. At the exercise date, they can elect to receive payment of the excess of the price of the shares as of the exercise date over the original strike price in the contract. In other words, the option holder never pays the purchase price but receives the increase in value only. Actual purchase of the shares simply does not matter. For purposes of the issues addressed in this report (but not for tax or other policy which deal with very different issues), the question whether a bonus or carried interest is a wage or a return on “rented” equity should focus not on technical ownership, but rather on its valuation terms, the incentives it causes and the behavior of the recipient. In these senses, financial sector supermanagers are owners.

Some have suggested that the bonus/carried interest system is merely a holdover of customs from an earlier era, when investment banks were structured as partnerships and annual profits were divided first among senior employees and then among partners. However, if one sees the financial sector companies as occupying a privileged position as capital intermediaries and as wielding market power to stifle competition, the system is well-designed to secure privileges for the Financial Rent-seeking Business over other, more productive forms of finance such as business lending and public investment. These firms can generate tremendous excess of revenues over pre-bonus costs. The managers keep as much of that excess as possible, so long as they can deploy the remaining profit to attract

outside investment of capital needed to run the firm. Shareholders are paid just enough so that their investments are more attractive than any alternative and the rest is kept by the managers. In other words, these firms are so profitable that managers can skim off up to half of it (in the investment banking example) and still raise enough to generate the tremendous capital they need to back their Financial Rent-seeking Businesses.

In this light, we can see that today's financial supermanagers and the Gilded Age *rentiers* are not all that different, contrary to Piketty's view. *Rentiers* married into or inherited holdings, mostly land, an asset class that was strictly limited in supply so that it afforded them great market power. Today's finance supermanagers are granted high-level employment in a privileged business of capital intermediation that wields great market power. But in the modern version, the market power is based on a federal "license" to intermediate (the business is highly regulated), plentiful capital and superior technology and quantitative analytics. A management position in a big bank, hedge fund or private equity firm is the relationship that matters rather than a marital or blood relationship, but the parallel is real.

The financial sector supermanager compensation system drives accumulation of capital in another way. It provides high return investment opportunities for the wealthy so that their fortunes grow more rapidly. A financial sector supermanager is "renting" a capital interest in his or firm or hedge fund portfolio *via* his or her bonus/carried interest compensation arrangement. As a limited time-frame renter, the manager's incentive is to increase returns over the short term so as to maximize the income for the duration of his or her "rental."

Therefore, in the financial sector, the optimal approach for the supermanager is to grow the financialization business quickly during the period of his or her "rental." To do so inevitably increases enterprise risk of the financial firm. Financial sector returns are directly related to risk: financial firms make money either by speculating on risk or by intermediating risks, meaning taking on risk as a middleman and charging for this intermediation. To grow the firm and the value of his or her "rental" interest while it exists, the supermanager will aggressively cause the firm to take on risk and make certain that it has the capital to do so.

Incremental risk is less of a concern to a manager that is "renting" a capital interest than it is for an owner of a capital interest in the firm (a shareholder) because the manager's interest is transient. If the

supermanager invests nothing, the only loss from the realization of a risk is the loss of an opportunity for additional bonuses or carried interests. This opportunity may well be replaceable by employment at another financial firm.

Moreover, the concern is further mitigated to the extent that a failure of the firm is less likely as a result of being too big or interconnected to fail. A catastrophic event might interrupt the payout from the rented interest, but so long as the firm's position is preserved as a capital intermediary, the payout can be expected to start again.

The ability to act on this incentive to grow the business rapidly in order to take advantage of transient rented capital is assured by the absolute profitability of the Financial Rent-seeking Business. In the model described above, management can allocate excess net revenue between bonus pools/carried interests and profit to shareholders so as to make certain that capital is attracted to grow that business. In this model, the financial sector can attract incremental capital investment as needed for growth by competing successfully with other capital consumers (business, governments, households) in terms of returns on capital that they can offer. The managers can set bonus pools/carried interests to make certain that capital can be attracted to grow the business as quickly as possible. The bar for returns on investment is always rigged to be as high as it needs to be. Because the financial sector supermanagers are compelled to grow their Financial Rent-seeking Business by attracting more capital, and because they are able to provide returns sufficient to exceed those provided by competitors for capital investment, aggregate returns are increased by growth of the Financial Rent-seeking Business.

Thus, the return on capital investment throughout the economy is increased as the capital allocated to the Financial Rent-seeking Business grows, increasing average returns on capital throughout the economy. One form of investment is in banks and other financial institutions, and investment portfolios include large bank holdings. But there are many other forms. Private investment businesses, like private equity funds, hedge funds and venture capital funds are significant capital investment vehicles also. The wealthy are often given access on favorable terms and they are certainly better able to take on positions that promise high reward potential because their portfolios are so broad and diverse. As a result, capital returns exceed growth by more than they otherwise would, increasing the disparity of wealth in the economy as anticipated by Piketty

Non-Financial Sector Companies and their Supermanagers

Supermanagers are also compensated through stock options or outright grants of shares with restrictions. This practice is justified because it is said to align the interests of senior management with the shareholders. The concept is designed to enhance the principal/agent relationship between shareholders and management. It is integral to the “shareholder value” theory of corporate management and governance, holding that management should strive to maximize share value. If senior managers hold stock options or shares they cannot sell for a period of time, it is believed that their incentives will be aligned with those of the current shareholders.

The Shareholder Value Theory. The shareholder value theory, of course, begs the question of how shareholders value their holdings. A shareholder might be most interested in how holding shares affects his or her well-being over the next decade or two, but this is difficult to measure. Short-term value change is easier to measure by simply checking current share prices in the market. And the tremendous increase in liquidity afforded by traded markets allows investors to move freely from one investment position to another based on short-term price fluctuations relative to fundamental value (*i.e.*, value based on current and anticipated performance of the corporation). Thus, investors are more interested in the current, transient value of investments since they can move freely among investment opportunities. Value in the future is not as important as with illiquid investments. Shareholder value is almost always interpreted with reference to short-term share price movements. It can be argued that short-term price changes are reflective of changes in the expected long-term results of a company. But this ignores the ample evidence of forces exogenous to the fundamental value of a company that affect short-term price variations.⁶⁵ Therefore, the most significant valuation standard is the current, short-term return on assets: current earnings divided by the company’s asset base.

Thus, the shareholder value theory of corporate governance is defined by the relative ease of measuring shareholder value as the current stock price, divorced from other valuation perspectives—an approach that is intellectually indefensible. It nonetheless does two things: it incents management to act so as to increase short-term share value; and it biases stock ownership toward short-term holding periods because companies are managed to optimize short-term value enhancement. For a company that is managed with short-term share value as the most important goal, those investors who are in it for short-term gains find ownership of the shares of that company

more to their liking.

The shareholder value theory is closely related to financialization. Economic rents from financialization are derived from speculative or “information” trading that generates profits from short-term price moves in the traded markets based on superior information and superior ability to deploy capital into trading based on that information.⁶⁶ Companies that are managed so as to respond to short-term share valuation changes appeal to investors who seek liquid investments and ascribe high value to that liquidity. They also appeal to speculative traders.

A corporation that measures its performance by changes in short-term share value behaves increasingly like a hedge fund, and the management behaves in large part as the hedge fund manager.⁶⁷ The corporate “hedge fund investments” are the assets of the corporation (*i.e.*, its business lines) and its performance is measured by market value of its shares. Hedge fund managers manage a portfolio of assets, financial instruments, and derivatives, while a CEO manages a portfolio of businesses. The performance of each is measured by a continuous index: the performance of the hedge fund investments relative to the market; and the share price of the CEO’s company relative to the market. The compensation of each is determined by that performance.

In this model, corporate management determines whether to engage in an activity based on the immediate effect on share value. Routinely, potential effects on share price drive decision-making about investing in or divesting from new plant and equipment, research and development or, in lieu of investing, profit sharing with shareholders through dividends and share buybacks. Importantly, non-cash assets cannot be liquidated or added to as readily as in a hedge fund that invests in securities and derivatives. For a hedge fund manager, a mistake can be corrected or an opportunity seized much more quickly. Similarly, corporate management can buy or sell a business line or shut down or develop a business line; but, in contrast, these are complicated, slow-moving and risky propositions.

As a result, there will always be a bias to increase returns on assets without increasing assets, the strategy that is most likely to increase the share price in the short-term. Managers will be biased against pursuing asset growth through investment. That strategy reduces the short-term return on assets because the investment creates new assets that do not generate returns immediately, even though such investment might yield even higher returns in the future. Among other things, these biases against asset growth undercut job creation,

which was once considered a primary function of business and, indeed, of the financial sector as well.

The stock-in-trade of the Financial Rent-seeking Business is the interaction between trading velocity and price volatility. This generates rent-extracting opportunities. Another way to express this is that speculative trading makes money only to the extent to which prices change a great deal, and the faster the changes occur, the more a sophisticated trader can take advantage. Active trading is thus a function of short-term share value changes; and short-term share value change is enhanced by changes in absolute returns (quantity of profits) with a steady or declining asset base. Keeping the denominator (assets) the same or reducing it means that changes to current earnings have a greater effect on current return on assets. New investments take a long time to affect returns one way or the other. Thus, financialization trading activity and corporate behavior interact to enhance each other. The non-financial sector has become financialized and is an integral part of the financialized economy.

[Non-Financial Supermanagers.](#) As with financial supermanagers, the prevalent compensation of non-financial sector supermanager is a form of ownership with restrictions. Instead of being able to “rent” capital ownership to accumulate a wealth position (like the financial sector supermanagers), managers predominantly hold stock options or restricted ownership that transfer capital ownership, but attributes of ownership are delayed until a subsequent vesting event. It is almost the inverse of the financial sector supermanager construct. The typical financial sector supermanager enjoys the benefits of ownership currently for a period that will end; the non-financial sector supermanager’s benefits are deferred until vesting, though they accrue in the interim.

Just like so many other factors that influence the economy, ownership-based compensation changed markedly starting around 1980. Initially, the largest companies started using stock options and restricted ownership heavily to compensate CEOs at that time. In the mid-1970s stock options and other arrangements based on firm value was about 15 percent of total compensation for the CEOs of the top 100 companies. This practice grew rapidly so that by 1999 almost 90 percent of CEO compensation was based on company value (see Figure 13).

After 1999, the practice spread beyond the very largest companies. By 2012, 66% of CEO compensation for the top 500 companies was in the form of stock options and similar schemes.⁶⁸

Again, these supermanagers share many characteristics with the

Figure 13. Composition of Pay for the Top 100 CEOs, 1970-1990



Source: Thomas Piketty and Emmanuel Saez, 2012.
 Note: Other includes "long-term non-equity incentive payouts, the value realized from vesting of restricted stock and performance shares. Also includes other executive personal benefits, such as premiums for supplemental life insurance, annual medical examinations, tax preparation and financial counseling fees, club memberships, security services and the use of corporate aircraft."

rentiers of old even though the form of ownership enjoyed by non-financial supermanagers is more complex. Thus, they are much like an individual who married into a wealthy family in earlier times. The privileged relationship is not through marriage but through elite employment. But once the relationship is established, their wealth and income is a function of status far more than performance. They are *rentiers*, not too different from those who were members of dynastic families prior to World War I.

The similarities are most clearly understood by an analysis of the rationale behind these arrangements. One strain of thought sees the phenomenon as primarily irrational:

If executive pay were determined by marginal productivity, one would expect its variance to have little to do with external variances and to depend solely or primarily on non-external variances. In fact, we observe just the opposite: it is when sales and profits increase for external reasons that executive pay rises most rapidly. This is particularly clear in the case of US corporations: Bertrand and Mullainathan refer to this phenomenon as “pay for luck.”⁶⁹

This concluding characterization referencing the Bertrand and Mullainathan study is not particularly useful. Rather than pay for luck, these schemes should be seen as ownership interests transferred as an entitlement of elite status. The observation that compen-

sation increases with sales and profits that are generated by external factors and are therefore a function of luck⁷⁰ misses a key point. Share value over the short term is strongly influenced by short-term calculations of return on assets, fundamentally by dividing corporate profits by assets. Assets that may pay off over longer time horizons reduce this percentage over the short-term. This incents management to eliminate or eschew long pay-out assets.⁷¹

A firm that has no long payout assets will benefit more in terms of return on assets from the external factors that are identified in the Bertrand and Mullainathan study. For example, an oil company that is not involved in research and development will have a higher return on assets if oil prices increase since the profits are spread over lower asset value. Therefore, the observed phenomenon is not about luck; it is a result of the narrowing of the asset base to achieve short-term return on assets, increasing the sensitivity of profits to external factors. It means that the management is optimizing short-term share prices, just as shareholders with short holding periods would want.

Several economists assert painfully weak explanations of how supermanagers are able to negotiate such enormous pay packages. For example, some economists reason that the shareholders are duped or bullied or that the supermanagers have such a high incentive to be paid more in a low marginal tax rate environment that they exert super efforts to get good compensation schemes.⁷² The duping/ bullying explanation is completely unsatisfying, since it requires the shareholders to consistently agree to compensation schemes because of ineffectual assertion of their rights. It also suggests that a CEO will negotiate more energetically and effectively for a compensation scheme that will make his or her heirs wealthy for five generations than for such a scheme that only makes two generations wealthy, a questionable supposition.

Some observers point out correctly that executive compensation is often set by boards of directors populated by executives who have similar compensation arrangements. Logically, this has some effect on the size of those packages. But it requires shareholders' tacit or direct approval of negotiations between directors and managers that are inconsistent with shareholder interests.

It is more useful to focus on the fact that the compensation schemes for supermanagers are largely the outcome of rational decision-making by shareholders and boards and are not primarily the outcome of management's clever and vigorous bargaining (perhaps incited by tax policy) or board member self-interest. One must

guard against concluding that these schemes are totally irrational and thereby miss structural reasons for them.

A better analysis is that the level of non-financial supermanager compensation is influenced by the financial sector. The financial sector supermanagers can secure bonus/carried interest arrangements because the firms' privileged position involves huge market power that becomes oligopolistic. This allows such high profitability that shareholders can be paid less than the total potential profits from the firm and still be induced to invest. Management can create large bonus pools to trap potential profits for distribution as compensation because shareholders still get a favorable deal by investing in an oligopoly.

In this view, the non-financial supermanagers successfully negotiate for huge compensation packages largely because financial sector compensation is so high. In order to negotiate with Wall Street, it is rational that they should be compensated at levels as high or higher than the bankers that they engage on behalf of the firm. This puts the non-financial managers on equal footing with the bankers and also prevents wholesale drainage of business executives into the banking field. As we have seen, non-financial firms are increasingly like specialized hedge funds so that the transition from financier to corporate CEO and back to financier is very comfortable, at least potentially. Their qualifications and functions are similar. That is the management marketplace in which the supermanagers exist. The problem for American households is that the incentives that shareholders and managers follow, generated by the financial sector, are misaligned with an economy that would serve the interest of the public.

VI. FINANCIALIZATION & INEQUALITY: EMPLOYMENT & ECONOMIC GROWTH

We have examined how financialization causes wealth to accumulate and the amount of income from investment in the economy to increase. At the other end of the spectrum of income and wealth disparity is the stagnation of incomes associated with low economic growth. For the vast majority of people, the problem is not simply that some members of society are wealthy; it is that their wealth and the ways in which it grows cause the rest of society to be poorer than it would otherwise be.

Financialization is a drag on economic growth and the incomes of the vast majority of households for four distinct reasons:

- It causes increasing amounts of capital to be allocated disproportionately to uses that do not generate high quality employment for a broad portion of households.
- It incents non-financial companies to avoid investment in expansion of businesses and in innovation, each of which is more likely to generate higher quality employment for such households. This has sapped the non-financial sector of the essential dynamics embedded in Schumpeterian creative destruction (innovation and progress arising from business failures).
- It deepens and lengthens economic downturns by diminishing the intended effects of monetary policy.
- It enables the decline of organized labor and diminishes the bargaining power of labor, reducing incomes from labor.

Elasticity of Substitution of Labor and Capital and Financialization

Economic growth can derive from investment in corporate growth and innovation. Investment in technology is a large factor in growth and innovation. Growth of income within the economy depends not only on how much capital is invested in innovation and advancing technology but also on the nature of the new technology. For example, automobiles made carriages obsolete, displacing

carriage makers, horse breeders, buggy whip manufacturers and others. But the automobile raised the economic productivity of new and existing workers, by allowing for much more efficient transportation of goods. The new capital invested in the auto industry was “labor augmenting.” In contrast, new capital investment today seems to diminish the value of labor (and consequently the share of national income representing labor income).

Capital devoted to the Financial Rent-seeking Business increases income from returns on capital investment, but it does not materially improve incomes from wage labor. Therefore the increase of capital devoted to the Financial Rent-seeking Business, by itself, contributes to wealth disparity. This characteristic of a capital investment is referred to as “elasticity of substitution of capital and labor” and it is central to Piketty’s findings. Piketty describes elasticity of substitution as follows:

If the coefficients of the production function are completely fixed then the elasticity of substitution is zero: it takes exactly one hectare of land and one tool per agricultural worker (or one machine per industrial worker), neither more nor less... Conversely, if the elasticity of substitution is infinite, the marginal productivity of capital (and labor) is totally independent of the available quantity of capital and labor. In particular the return on capital is fixed and does not depend on the quantity of capital: it is always possible to accumulate more capital and increase production by a fixed percentage, for example 5 or 10 percent a year per unit of additional capital. Think of an entirely robotized economy in which one can increase production at will simply by adding more capital.⁷³

Capital devoted to the Financial Rent-seeking Business is not a matter of land or tools. Neither is it primarily a question of robotization (though the prevalence of automated high speed trading is a factor). This capital sits on the books of a financial firm to back the trading, derivatives and allied businesses. It may constitute a risk reserve; or it may be used as a funding source to enter the market when necessary, to be returned on market exit. It generates apparent increased production with minimal incremental labor required.

According to Piketty, the elasticity coefficient has been greater than one over an extended period. Intuitively, this corresponds to a persistent condition in which there are many different uses for

capital that do not benefit labor, fueling the excess of “r” over “g.” If the elasticity is greater than one, an increase in the ratio between capital and income in the economy leads to a drop in the marginal labor productivity of capital. As a result, the capital share of the entire economy increases, and the labor share decreases.⁷⁴ This means that there are growing opportunities to invest profitably—for example in financialization—without increasing the value of labor.

However, we do not have to wade into the question of whether high elasticity of substitution is a universal phenomenon. The Financial Rent-seeking Business is clearly characterized by a very high elasticity of substitution of capital and labor. Capital largely backs financial risk⁷⁵ and the business is highly automated and requires very little wage labor on the margin. Much of the compensation of employees is actually return on “rented” capital. And, as described above, supermanagers in the financial sector are incented to grow the capital allocated to the Financial Rent-seeking Business as rapidly as they can and the profitability of the firms and their compensation structures allow them to do that. Thus, financialization both creates supermanagers and generates capital investment that does not benefit labor’s share of income. Both of these outcomes increase returns on capital investment and neither generates sustainable economic growth or growth of labor incomes.

Automation and globalization clearly generate capital investment that is characterized by high elasticity of substitution of labor and capital. Nonetheless, given the size of the financial sector and the immense capital demands of the Financial Rent-seeking Business, it is clear that the financial sector directly contributes a great deal to the declining labor share of incomes.

Supermanager Incentives and Low Growth

The supermanagers at the very tops of firms are granted large capital ownership positions (though the terms are complex) in a single enterprise. Unlike wealth that is invested in a diverse portfolio, the growth and preservation of their wealth is tied to a particular enterprise. The two prevailing methods, the bonus/carried interest system in the financial sector and the stock option method in other businesses, create very different management outcomes as a result of different incentives. Yet, each of these outcomes is a drag on economic growth and reduces potential income growth for most households. Because of these management outcomes, the financial sector is likely to grow rapidly as a share of the economy and the non-financial sector share is likely to shrink.

Bonus/Carried Interests in the Financial Sector

As described above, the financial sector is run by supermanagers and as part of compensation they are allowed to “rent” a capital ownership interest in the financial firms that they manage. They are both incented to raise large amounts of capital to grow the business and are able to do so easily. The Financial Rent-seeking Business requires a great deal of capital to function. Since returns paid to investors can be calibrated by the managers, and since the business is (barring a bank panic and financial meltdown) tremendously profitable, financial sector capital will always be near the top of the stack for investors considering various opportunities. Therefore, the Financial Rent-seeking Business will always successfully crowd out other, non-financial investments that simply cannot compete.

The crowding out effect does not affect all other types of investment opportunities equally. Financialization drives investment decisions toward shorter-term time horizons. The shareholder value theory of corporate governance and the increasing use of the liquid traded markets for capital intermediation make that certain. As a result, the displaced investments will be disproportionately the investments on the margin in innovative enterprises that require a longer-term and less certain return on investment, especially those that devote capital to research and development. In addition, investment in infrastructure, which returns value over an exceedingly long term to a broad range of beneficiaries, is more likely to be crowded out in a market dominated by short-term returns. Therefore, capital for innovation and research and development, smaller local businesses and start-ups and infrastructure would all be starved of capital. As illustrated in Figure 14 below, that is exactly what has been happening (though there are reasons beyond crowding out by the financial sector that drive these results, as discussed below).

Moreover, the absorption of innovative skills by the Financial Rent-seeking Business is dramatic and it certainly reduces the pool of innovation resources that would otherwise be available for enterprises that generate employment and labor income more effectively.⁷⁶ This is demonstrated by the work of Thomas Philippon and Ariell Reshef⁷⁷ that analyzes the changed employee composition in the financial sector since the late 1970’s, a time at which incomes in the financial and engineering sectors were on a par:

We find that until the late 1970s, workers in the financial sector were only slightly more educated and received slightly higher wages than in the rest of the economy. Since the early

1980s, however, the financial sector has been hiring more and more skilled individuals, at a higher rate than the rest of the private sector. The increase in the skill intensity of the finance labor force reflects both a composition shift away from the Banking industry and towards investment banks, mutual, pension and private equity funds, which are relatively more skill intensive, and an increase in skill intensity within some industries.

These highly skilled and talented individuals are simply not available to non-financial businesses, which have on average a lower elasticity of substitution of capital and labor. All of this, of course, burdens growth in the non-financial sector and depresses incomes for middle and lower income households.

Share-based Compensation in the Non-financial Sector

In contrast with supermanagers in the financial sector, a manager with stock options or restricted shares holds a single large and illiquid interest in a single firm for a long duration. The financial sector supermanager holds an interest that pays off immediately and then ceases to exist. The non-financial supermanager holds an option to purchase shares in the future or shares that cannot be liquidated until time passes. Thus, the non-financial supermanager cannot get a payoff immediately by selling the interest and must wait for ownership to vest. In terms of timing, the financial and non-financial supermanagers are the mirror images of one another. As a consequence, their incentives are very different.

The non-financial sector supermanager's tolerance for risk is very low.⁷⁸ For instance, contrast such a manager's interest with that of the owner of a diversified portfolio of capital assets. The owner of such a portfolio would undoubtedly include investments with higher risks and potential returns. Risks attendant to the various elements of the portfolio are not likely to be realized all at once, so higher risk for elements of the portfolio can be tolerated.

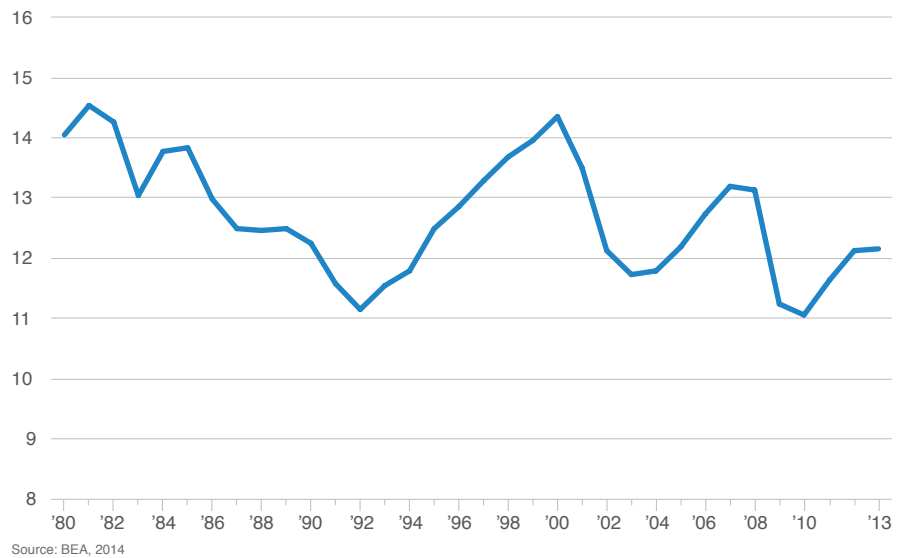
This is an example of the portfolio effect that is completely absent from the non-financial supermanager's position in stock options or restricted share ownership. A non-financial supermanager in many ways runs a single stock hedge fund with a deferred carried interest that can be lost completely if a significant risk is realized. A non-financial supermanager's entire position can be wiped out from the realization of a single risk. As a result, the manager with stock options would optimally endeavor to achieve two results: limit the

failure risk in his or her firm, which would directly and proportionately affect the value of his or her future wealth, and simultaneously grow the value of the market price of the company's shares of stock. To do so, the manager would use his or her influence to pursue the following:

- Avoid the risky growth tactics of innovation and expansion into new markets. Under this condition, cash generated from operations is more likely to be used for share buybacks (or even held in passive corporate treasury investments that yield a current return) than for expansion or innovation, the return on which is both risky and delayed, even though it may be potentially much higher in the long run.
- Increase profits by reducing costs, primarily through outsourcing operations and by aggressive automation. Outsourcing reduces assets by converting operations into outsourced contracts. Automation reduces labor expenses and improves returns on assets quickly. Thus, the return on assets, and share price, will be improved so long as the ratio of earnings (which may actually be reduced by out-sourcing) to assets (which will often be reduced) is higher than it was before.
- Decrease the number of other shares outstanding through use of earnings for stock buybacks (purchases in the open market or through formal tender offers) instead of investment, thereby safely increasing the value of the manager's shares. Investment will reduce the return on assets unless and until the new assets generate returns at least equal to the existing assets, a risky proposition for the supermanager. Reducing assets by using cash to buy in investments will increase the return on assets without increasing revenue. Investing cash from earnings increases assets (the denominator) while earnings (the numerator) may never increase. Buying back shares reduces assets (the denominator) while keeping earnings (the numerator) the same.

Therefore, the financialization of large companies has come to incent managers to use every effort to increase share prices without investing in growth or innovation. This incentive is shared by shareholders using short-term valuation metrics. But for the non-financial supermanager, whose incentives are not mitigated by portfolio

Figure 14. Private Investment in Equipment, Structures and Intellectual Property, as a share of GDP (%), 1980-2013



effects like a shareholder's are, it is far more intense. As a result, a decline in investment in research and development and expansion is to be expected, and this has occurred (see Figure 14).

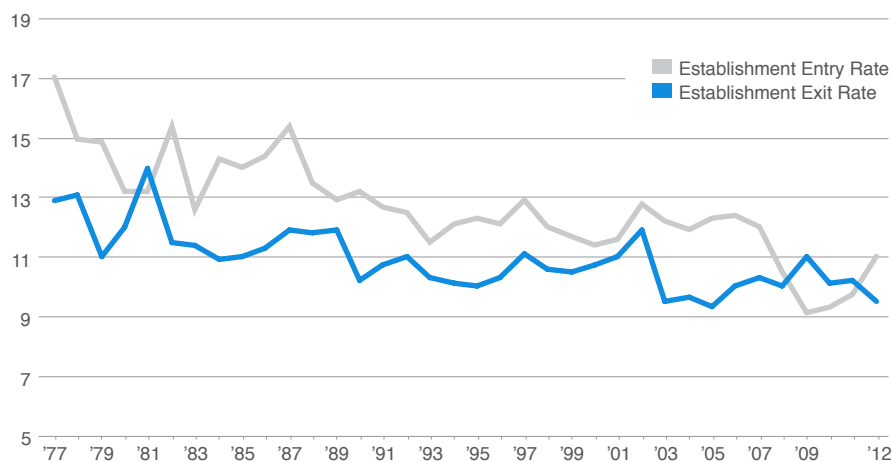
It should be noted that the only significant interruptions of the overall downward trend in investment are during the dot-com boom of the late 1990s and, to a much lesser extent, during the housing bubble. Market investment in innovation, and particularly in invention, is uneven and concentrated in the bubble phase of the business cycle, suggesting irrational and inefficient allocation of capital based on misevaluation of opportunities during times of apparently irrational growth.⁷⁹ Thus, aside from periods of relatively irrational fervor, investment in innovation tracks the incentives of non-financial sector supermanagers.

Recent research by Robert Litan and Ian Hathaway has found that basic forces of our system have changed since 1980.⁸⁰ These findings are related to the investment patterns discussed above and suggest that their effects may threaten the economy fundamentally, especially labor and employment. The study examines business dynamism, the process of “creative destruction” in which firms exit from the economy (often failing) but other firms enter the system. Traditionally, jobs are reallocated from the exiting firms to the new entrants. This “reallocation rate” is crucial because it measures how effectively jobs are reallocated from exiting firms to firms that are new entrants. If the rate is negative, employment opportunities are declining as a result of the process of exit and entry.

The study finds that the rate of exiting firms has not changed materially over the period from the late 1970's through 2011 (and this continues through 2012, the last year of available data). However, the number of entrants has declined substantially. (see Figure 15a). Even more significantly, the job reallocation rate has trended downward at an increasing rate over the period. (see Figure 15b). The conclusion is that business dynamism has been on the decline and that households depending on labor have suffered greatly.

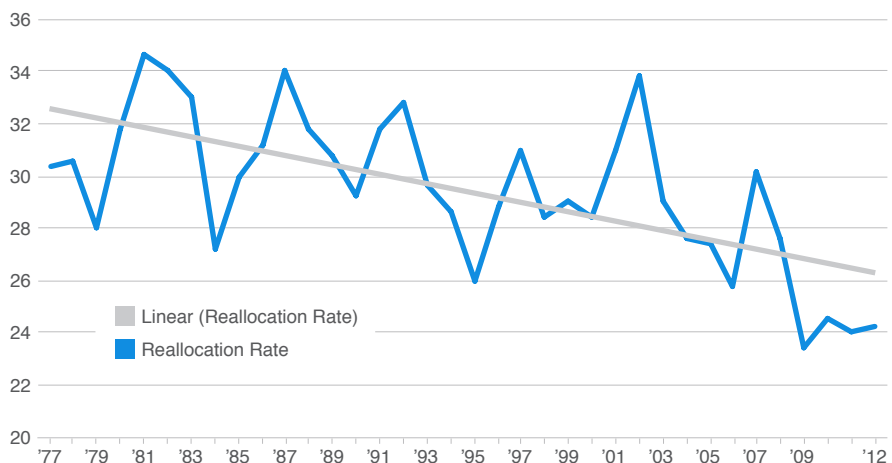
The authors of this study do not identify causes for this decline in dynamism. Hopefully, additional quantitative studies will address causation. However, one is compelled to draw a connection between the decline in investment, and dis-investment, that has emerged

Figure 15a. Entry Exit



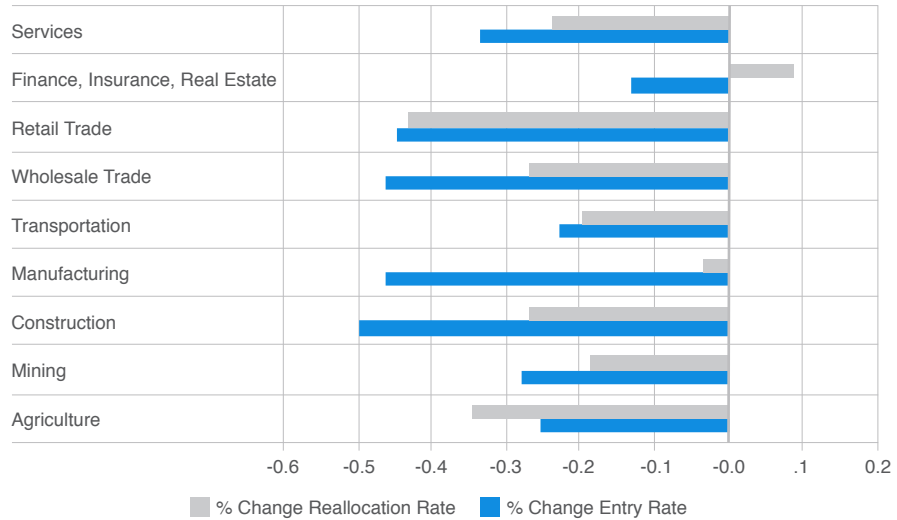
Source: US Census Bureau, Business Dynamics Statistics, recreating chart from Litan study and extending coverage to 1977 and 2012

Figure 15b. Reallocation Rate



Source: US Census Bureau, Business Dynamics Statistics

Figure 15c. Reallocation and Entry Rates by Industry



in the corporate sector as a result of financialization, as described above, and the decline in business dynamism. The study looks at dynamism in several business sectors. The only sector that has maintained a positive reallocation rate over the 34 years of data studied is, indeed, “Finance, Insurance and Real Estate” (see Figure 15c).

Share Buybacks—Incentives

The increasing corporate practice of share buybacks in lieu of investment has been recognized widely as being related to an aversion to investment in growth, especially growth that generates jobs. It has been suggested that executives are incented to pump up share prices by reducing the number of shares outstanding simply because they hold stock options or restricted shares, a sort of legal stock scam. This analysis is too simple. It fails to consider the importance of time scale of share price as the driving factor for shareholders and the significance of the risk of an illiquid and narrow portfolio risk managers⁸¹ In other words, the criticism of the managers fails to consider the forces driving shareholder sentiment and the extreme risk aversion of the managers.

For example, without considering these factors, a manager with stock options may well prefer an investment strategy that is likely to increase the per share value of the company at the time of his or her exercise of the options more than a buy-down of shares would.⁸² Any analysis of the demonstrated decline in investment of earnings and the prevalence of share buybacks must recognize cash available for investment as an asset that supports the value of current shares

outstanding and can be converted into an investment with a future pay off. It is a timing and risk issue that has far more to do with valuation practices of investors and intermediate term risk exposures of executives than gaming of the system by executives to obtain a short-term increase of share value.

Others have discussed the correlations among earnings, share buybacks and debt incursion, suggesting that the reason a company may at the same time apply earnings to buy back shares and borrow money to fund projects is that shareholders have successfully demanded disgorgement of cash. The notion is based on an assumption that shareholders prefer cash within their control over cash controlled by a company in which they invest and borrow money to pay them through buybacks. This analysis cannot explain why companies buy back shares instead of investing in expansion or innovation. First of all, it is not driven by shareholder desire for cash—shareholders always can convert shares to cash by selling them, and presumably they do so if an alternative investment offers a higher return as they measure it. And any cash received by an investor is almost always going to be reinvested so it stays under his or her control only for an instant. The motivations are far more complex than is suggested in these discussions.

Furthermore, simultaneous earnings, share buybacks, and debt incursion is likely the outcome of management of a leveraged capital structure to avoid (for example) a hostile takeover and to optimize the weighted average cost of capital.⁸³ (In fact, investor demands for buybacks cited in some analysis as a desire for “cash now,” is actually akin to a hostile takeover threat.) These discussants employ a model in which a company determines whether to borrow to invest in a project or to buy back shares. Companies don’t often borrow money for a project: projects are capitalized by the entire capital structure, meaning that the cost of capital that a project’s anticipated returns must surpass is the average cost of all capital on the balance sheet, debt and equity. Leaving aside the element of time (which is, of course, the driving factor), a shareholder will support an investment with risk-weighted returns that exceeds the weighted average cost of capital of the company. The problem is that this is not occurring often enough in the economy because of investor valuation based on short time scales.

There are different types of innovation and some categories are riskier than others. The riskier categories are less likely to be undertaken. Innovation has two forms: invention of new systems and products; and commercialization of existing systems and

products. For example, the Internet was invented through a process of research and development, largely sponsored by the U.S. government. Many new businesses today are based on commercialization of that invention. Both forms of innovation involve risk, but invention is more risky because research and development requires greater cost and an invention must be successfully commercialized to achieve financial value. A supermanager is incited to lower the priority of invention and, to a lesser extent, commercialization in his or her strategy for increasing share prices. The recognized decline in corporate research and development for purposes of invention is influenced by this incentive. ⁸⁴

Financialization, Monetary Policy and Low Growth

In down economic cycles, money pumped into the system increasingly fuels the Financial Rent-seeking Business rather than recovery from high unemployment in the typical business cycle. Federal Reserve policy during a recession is designed to make cheap funds available so that productive assets will be acquired or put back into service and jobs will be created anew.

Since 2008, the growth of the financial sector and market power of firms within the sector have been sustained, and undoubtedly enhanced, by the unprecedented monetary policy of the Federal Reserve. The Fed moved beyond full implementation of conventional techniques into the use of “Quantitative Easing” to shift financial assets onto its balance sheet and thereby inject liquidity into the financial system and maintain low interest rates. Conceptually, by purchasing assets (primarily debt securities), and moving them onto the Fed balance sheet, assets held by the financial sector are converted to cash that can be redeployed and used to inexpensively fund consumption and investment. This is intended to spur economic growth and incomes to counter the effects of recession. The Fed balance sheet stood at \$900 billion in mid-2008. It grew to \$2.2 trillion by the end of that year. It grew to \$2.9 trillion by the end of 2012. During 2013 and 2014 it has grown further to \$4.7 trillion. ⁸⁵

Initially, this had the dual purpose of lowering the cost of capital for economic growth and allowing the banking sector to “earn its way out of” the losses incurred at the time of the crash. The banks could borrow inexpensively and earn a large spread on investments funded by the cash generated by Fed policy. Despite a seemingly healthier banking system, the Fed continues to pursue this policy, slowing Quantitative Easing cautiously, because of weak employment, much weaker than the official unemployment rate

indicates. Fed Chair Janet Yellen has expressed concern about the “challenging” assessment of labor market slack beyond unemployment rates, specifically labor force participation rates, disability claims, early retirements, cyclical school enrollments, and the prevalence of part-time workers.

Fed Chair Yellen has speculated that labor market problems may be structural and predate the recession. This is consistent with this report’s findings. However, a separate issue is the possibility that financialization diminishes the effectiveness of monetary policy. In a highly financialized economy, increases in the money supply may be channeled into unproductive financial activities, resulting in much weaker stimulus for production and job creation. If this is the case, the effects of a recession will be deeper and endure longer than would be the case of monetary policy had greater force.

This explanation appears to fit with fundamental and ominous changes to the business cycle that emerged over the last 35 years, as recession-driven unemployment proved increasingly resistant to the medicine of corporate profits and GDP growth. In the recoveries following the last three recessions (1990-91, 2001 and 2007-2009), the return to pre-recession employment levels has taken much longer than was the case in previous recessions. Between the Second World War and 1990, employment rates recovered fully within eight months of the trough of each recession. In the 1990/91 recession, the recovery period was 23 months, and in 2001 the period was 38 months.⁸⁶ The employment recovery period for the recent recession, assuming recovery occurs, is unknown but far longer.⁸⁷ In short, the effect of a recession on employment has gotten progressively worse. There are likely several factors behind this phenomenon, including globalization and automation. Financialization, however, by diverting monetary stimulus away from productive investment, may be the most important cause of progressively weaker recoveries since the early 1990s.

This suggests an important factor in the business cycle policy. In a financialized economy, monetary stimulus in a down cycle is less effective than it was in a non-financialized economy. The practical issue is that the ability to employ fiscal stimulus is highly constrained by political polarization so that monetary policy is asked to carry a heavier load. We have yet to see the long-term effect of high levels of monetary stimulus in a financialized economy, but it is apparent that it did not adequately address unemployment caused by the Great Recession

As many have noted, the Federal Reserve’s post-Great Recession

program of prolonged low interest rates and massive Quantitative Easing appears to have had disproportionately mild stimulative effects. This is not illogical, however, if we consider the possibility that low interest rates and direct monetary injections are bound to be less stimulative in an economy where financial returns skew investment and business behavior against labor incomes and job creation. If the policies designed to increase growth by lowering borrowing costs instead transfer most of the value to the wealthiest via financialization, while doing little to increase incomes broadly, we are much less able to push back against cyclical downturns.⁸⁸

Union Membership and Labor Bargaining Power in a Reduced Asset Base Economy

The incentives of non-financial supermanagers may also have an important effect on union membership. Lower union membership decreases the labor share of incomes and increases income disparity.⁸⁹

Union membership within the U.S. workforce has been declining for many years and this has paralleled reductions in labor share of incomes. Non-financial supermanagers are incented to simultaneously constrain or shrink asset growth and decrease expenses (especially through outsourcing). These interact with union membership declines, at a minimum accelerating the effects of forces that have reduced manufacturing sector employment and labor's share of income.

Since these supermanagers are dis-incentivized to grow the asset base of their companies and may indeed prefer shrinking them, collectively they limit the number of investments in expanding plant, equipment and operations in connection with which employment is offered throughout the economy. Because there are fewer facilities and operations, there is increased competition among state and local governments to secure investment and local jobs. States and localities with pools of prospective employees are more likely to limit union representation in order to win the competition for a limited pool of investment:

- State and local governments can be induced to compete for limited facilities and operations in the economy by establishing legal environments that are unfriendly to private sector trade unions.
- Individual and groups of workers are less secure in organizing

collectively because the employers have the capability of moving facilities and operations and have demonstrated the ability to do so. As assets are constrained and shrunk, the willingness of employers to shut down or sell facilities and operations is demonstrated to workers.

It is not necessary that companies coordinate their efforts in this regard. It is simply the outcome of the constraint on growth of assets that is incentivized by the compensation structures of non-financial supermanager compensation and by the importance of liquidity and short-term share value sensitivity to shareholders and the financial sector. This phenomenon occurs on a global scale as well as within the national economy.⁹⁰

CONCLUSIONS

This report examines financialization—the increasing financial activity in the economy that does not enhance (and in fact impairs) the efficiency of the financial system’s core social function—and its role in certain troubling characteristics of today’s economy, specifically slowing growth and widening income and wealth inequality. The groundbreaking works of economists such as Thomas Piketty, Emmanuel Saez and Thomas Philippon are woven together with analysis of financial market activities and incentives of private sector owners and managers to demonstrate that the process of financialization both causes and is caused by slowing growth and income and wealth inequality. Other forces also cause these conditions. However, while the contribution of financialization compared with other causes is not precisely measured, it is clearly substantial.

This conclusion calls into question interpretations set forth in recent important research suggesting that observable increases of wealth inequality are the inevitable historical consequences of capitalism. Growing inequality of wealth (as well as income) is abundantly clear. The question is whether it is inevitable and can only be reversed by large and continuous wealth transfers from the very rich to everyone else.

Even Thomas Piketty, who tends toward the belief that inequality is inevitable, acknowledges that the persistent increase of wealth disparity is not exclusively caused by the “natural” excess of returns on capital over growth. He finds that large-scale wealth accumulation, which threatens to become dynastic across generations, involves political influence that could threaten basic democratic values. As wealth at the highest level increases, the ability of the very wealthiest to influence political outcomes also increases. Therefore, it is very likely that families benefitting from dynastic fortunes will use their influence to preserve and improve their position using government as the means. Preserving and expanding the various domains and profit flows of financialization is likely to be a continuing focus of political influence.

This report finds that financialization deeply affects inequality of income and wealth and that its elimination could significantly change these conditions. In reaching this conclusion, this report

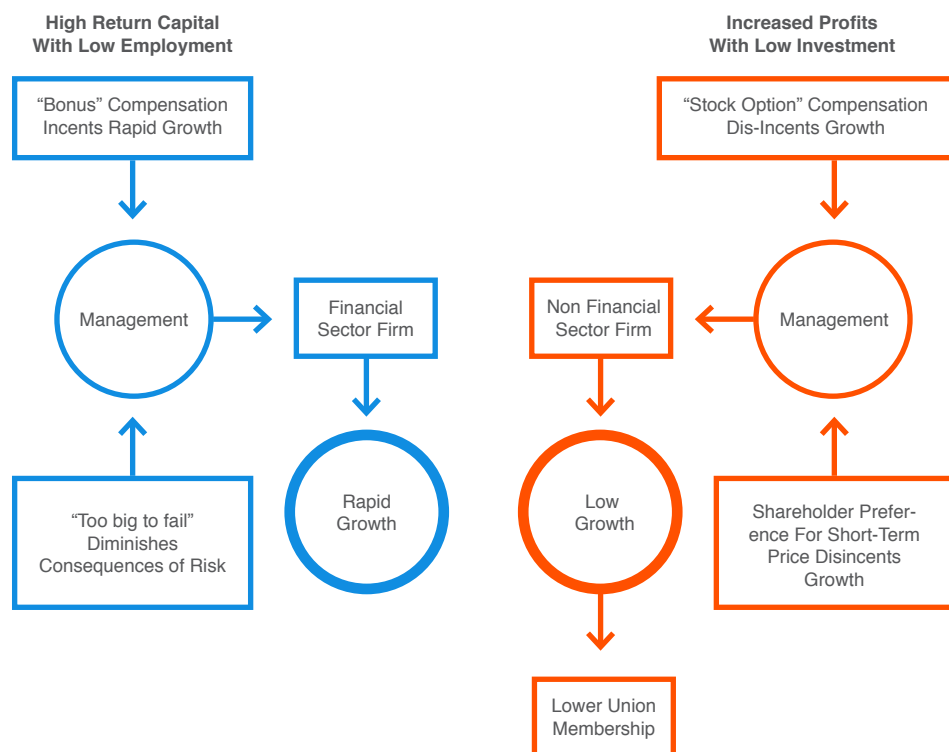
reaches a number of subordinate conclusions that are individually significant.

- Financialization most obviously includes activities of the financial sector, but it also includes financial activities of the non-financial sector that are induced by the financialization process. An increasing share of the business of non-financial companies is devoted to activities that can be seen as those of very specialized hedge funds. This is driven by the shareholder value theory of corporate management, valuation practices of investors and incentives resulting from executive compensation practices.
- Financialization is driven by the market power to generate large “economic rents” that are extracted from the economy. Economic rents are profits in excess of value that would accrue from true competition, and therefore are derived from market power. Relatively certain and large profits enable and incent financial firms to raise large amounts of capital to back the business of financialization. This financial sector capital competes successfully with the demand for investment capital for other businesses as well as for households, communities, and broader social needs. As a result, the financial sector share of capital increases.
- The compensation of both financial sector and non-financial sector supermanagers (highly paid executives that constitute 60-70 percent of the top 0.1 percent based on wealth) is best viewed as a form of privileged ownership of scarce assets rather than as wages for labor. The supermanagers should be viewed as similar to the pre-World War I *rentier* class. Unlike the earlier *rentier* class, the scarce assets held by today’s supermanagers are largely financial assets and other more intangible forms of wealth.
- The increase in capital devoted to financialization, with its structurally high returns, increases the accumulation of wealth derived from returns on capital investment, which in turn fuels wealth inequality. In addition, demand for such capital crowds out other capital uses that would provide higher quality employment. It also absorbs much of the liquidity generated by monetary policy diminishing its effectiveness.

- Rapid growth of the financial sector, with low regard for risk, is incited by the structure of financialization and the executive compensation practices of the firms, managers, and other agents who benefit from it. The capital investment in this financial growth does not support productive activities or labor incomes, thereby weakening aggregate demand and long-term growth in the economy.

Non-financial sector firms are increasingly managed with the sole purpose of maximizing short-term share value, not least because executive compensation is increasingly comprised of stock options and other equity stakes. As a result, business performance and strategy are being realigned to generate higher financial valuations instead of enterprise growth. Managers are incited to simultaneously increase share price by increasing returns on assets without engaging in enterprise growth through capital asset expansion and innovation. To achieve this, managers increase net revenue without investment by reducing expenses, often through outsourcing and other labor-cost strategies, and they also limit or reduce assets held

Figure 16. Financialization and Growth of Financial and Non-Financial Sectors



by the company, such as lines of business and plant and equipment. Thus, return on assets (and share prices) can be increased quickly with minimal risk to executive compensation packages.

These findings work together to create a whipsaw of the vast middle and lower income classes by the financial system (see Figure 16). Capital is allocated between the financial and non-financial sectors of the economy in ways that generate inequality of income and wealth.

Thus, financialization has been a significant causal factor behind two major changes in the economy in the last 35 years. The financial sector has grown in relation to the rest of the economy at the same time the non-financial sector's investment in growth and research and development has nearly ground to a halt. As a result, large amounts of capital have been allocated to uses that have reduced the shares of (and virtually eliminated growth of the absolute value of) income and wealth enjoyed by 90% of the population. And capital allocation that benefits that group has been severely diminished. When we seek the causes of stagnating growth and growing inequality of income and wealth, the first place to look is financialization.

ENDNOTES

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50. Id.
51. For the period 1980-2013, the average rate is 2.75%. However, this includes periods of growth that were inflated by the dot-com and housing bubbles.
52. In fact, he said that when Western Europe and Japan caught back up with the US and the UK, Reagan and Thatcher misinterpreted it as a decline of Anglo/American economies and panicked, adding fuel to the shift toward income disparity.
53. Piketty, Capital, 571.
54. According to Piketty, history suggests that this inflection point is somewhere around a 7:1 ratio of wealth to national income. See Piketty Capital (2014) supra at note 5, pages 164-198.
55. Piketty identifies an historic ratio of aggregate wealth equal to 7 times annual national income as a potential resistance point to further inequality. Current US wealth is approximately 5 times annual national income.
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57. Piketty, Capital, 278.
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 63. The typical stock option allows the manager to purchase stock at a date in the future at a price equal to today's price. The manager is allowed to opt for stock in the firm with a market value equal to the appreciation of market value to the option exercise date so that the manager does not need to pay the purchase price to secure the appreciation. It is as if the firm loaned money to the manager to buy stock at a zero interest rate and forgave the debt to the extent that the stock lost value.
 64. We recognize that the taxation of carried interests as dividends and capital gains is a current issue of debate in tax policy. The principle discussed herein relates to the question of wealth and income for purposes of analyzing income and wealth inequality. Our attention is focused on incentives and behaviors of the supermanagers. Tax policy is a different subject and we do not suggest that carried interests should be taxed as capital gains rather than ordinary income. This may indeed be a more complex issue in that the carried interests, i.e., the rental of a conceptual interest in a pool of assets, are granted at a zero cost basis.
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 69. Piketty Capital, 335.
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 72. Marginal income tax rates for the manager and the corporate employer can affect both positive and negative values of the compensation arrangement, especially if the effective rates (that is, the actual percentage paid) are very different. However, a bigger compensation package means more money paid and received and the tax consequences tend to compensate for each other, though this can be very different for employer and employee.
 73. Piketty Capital, 214.
 74. Piketty Capital, 217.
 75. Certainly financial firms invest and plant and equipment, but the vast majority of capital is required to back its positions in the market, much as a gambler requires a stake when he or she goes to the casino.
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 78. Andrew Smithers, *The Road to Recovery: How and Why Economic Policy Must Change*, Hoboken: Wiley, 2013.
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 80. Ian Hathaway and Robert Litan, "Declining Business Dynamism in the United States: A Look at States and Metros," May 2014, http://www.brookings.edu/~media/research/files/papers/2014/05/declining%20business%20dynamism%20litan/declining_business_dynamism_hathaway_litan.pdf.
 81. Of course if the option may be exercised in the immediate future, the manager's position is much more liquid and aligned with other shareholders.
 82. See, for example, William Lazonick, "Profits Without Prosperity," *Harvard Business Review*, September 2014, <http://hbr.org/2014/09/profits-without-prosperity/ar/1>.
 83. The explosion of available debt in the 1980's generated a flood of leveraged buy outs. Thereafter, corporations more actively managed their leverage ratios. Rules limiting buy backs were also liberalized at that time. As a result, it is not surprising that a company would buy back shares and borrow money simultaneously during a profitable period. It may also engage in expansion at the same time, but that is a decision with separate dynamics.
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