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Donald Tomaskovic-Devey

Ken-Hou Lin

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FINANCIALIZATION: CAUSES, INEQUALITY CONSEQUENCES, AND POLICY IMPLICATIONS

BY DONALD TOMASKOVIC-DEVEY & KEN-HOU LIN*

The U.S. is now a financialized economy, where the financial sector and its priorities have become increasingly dominant in all aspects of the economy. We focus on financialization as a process of income redistribution with two faces. The first face is one of rent seeking by an increasingly concentrated and politically influential finance sector. This rent seeking has been successful, leading to the pooling of profits and income in the finance sector. The second face is a shift in behavior of non-finance firms away from production and non-financial services and toward financial investments and services. This shift has had both strategic and normative components and has reduced the bargaining power of labor and the centrality of production. As a consequence, financialization of the non-finance sector has led to lower employment, income transfers to executives and capital owners, and increased inequality among workers. We discuss the policy implications of these consequences at the end of this Article.

I. INTRODUCTION

Modern economies are always changing—inventing new technologies, creating new markets, adopting new regulations and institutions, and incorporating new labor forces while shedding old ones. Many of these changes are incremental, deepening or redirecting current activity. Others are more fundamental, like the move from feudal to capitalist economic institutions, or agrarian to manufacturing-dominated production. There is reason to believe that the U.S. economy is going through a similarly large transformation and is now becoming

* Donald Tomaskovic-Devey is Professor of Sociology at University of Massachusetts, Amherst. Ken-Hou Lin is Assistant Professor of Sociology at University of Texas, Austin. We thank James Crotty and Gerald Epstein for their thoughts on the policy conclusions of this Article. We also appreciate Jacob Gerber, Patricia McCoy, Cowden Rayburn, and the editorial team for their thoughtful comments and suggestions throughout this Article. The research reported in this Article was supported by the National Science Foundation, the Institute for New Economic Thinking and the University of Massachusetts, Amherst.

dominated by financial firms and financial conceptions of both control and investment. Established firms are less and less treated as production units, but as bundles of tradable assets. Profits flow increasingly from financial investments, rather than trade in goods and services.

The functioning of the economy is no longer evaluated in terms of the production of employment or rising standards of living, but by the movements of the stock market, the realization of shareholder value, and the profits of the financial sector. Politicians on either side of the political spectrum now take extreme measures to ensure the growth of the stock market and the profitability of the finance sector, but pay only lip service to the well-being of most citizens.

There are two faces to this financialization of the economy that most concern us and that we discuss in this Article. In the first we have the increasing centrality of the finance sector to the U.S. economy. This face was produced by changes in the regulatory environment for financial markets and led to the transfer of a great deal of national income into the finance sector, as well as the more familiar “too big to fail or jail” and systemic risk problems associated with the resulting market concentration of finance. The second face, which is probably less well known to the readers of this journal, is the movement of the non-finance parts of the economy into the world of financial investment, rather than investment in production.¹ This face was also the product of new financial market institutions, exacerbated by finance sector pressures for short-term profit orientations in the management of non-finance firms and the agency-theory-based linkage of CEO pay to equity options.² Although we discuss both processes, we focus more on the less familiar distortion of income distributions in the non-finance sector.

In this article we summarize research which shows that the financialization of the U.S. economy is one of the fundamental drivers of the rise of income inequality in the United States. It is not only that

1. Greta R. Krippner has the foundational statement on this double movement. She made the empirical argument in her 2005 paper *The Financialization of the American Economy*, 3 SOCIO-ECONOMIC REVIEW 173 (presenting a detailed description of the regulatory process that elevated the financial principle in her 2011 monograph, CAPITALIZING ON CRISIS: THE POLITICAL ORIGINS OF THE RISE OF FINANCE).

2. Gerald Davis argues that there are two additional dimensions: the adoption of investment behaviors at the household level and a general normative shift to value investments over work in all phases of life. See GERALD F. DAVIS, *MANAGED BY THE MARKETS: HOW FINANCE RE-SHAPED AMERICA* (2009).

financial income is funneled to the top 1% of the population through equity ownership, but also that it distorts the rest of the economy, reducing employment and economic well-being for many people, increasing inequality among wage earners, while also increasing the share of national income going to capital and corporate executives at the expense of employees and their households. Financialization distorts economic investment and reduces the mutual dependence of capital and labor, eroding the social contract in which capitalism delivers profits to the owners of capital and a growing standard of living to citizens. Much of the discussion around regulation of the financial sector focuses on the problem of banks “too big to fail” and a financial system that is said to be too fragile to survive regulation. Our analyses suggest that the problem is worse. Financialization goes beyond the financial system and distorts income distributions, job creation, and investment throughout the economy.

The Occupy Wall Street movement forced the tremendous growth in U.S. income inequality into the public’s consciousness. At this point the trends are pretty well known. Among earners the U.S. is now one of the most unequal countries in the world, with its inequality level rising since the late 1970s and now comparable to that of China.³ Disturbingly, the proportion of national income that goes to employees, as opposed to capital, is at an all-time low.⁴ Finally, and perhaps best known, is that a disproportionate share of all growth in national income since the late 1970s has been collected by the top 1% of households.⁵

What is probably less well known is that high income inequality is bad for countries and their citizens. High inequality reduces economic growth and leads to the concentration of political power in the hands of a narrow elite.⁶ Almost all social problems and public health indicators,

3. GINI Index, THE WORLD BANK, <http://data.worldbank.org/indicator/SI.POV.GINI/> (last visited Jan. 25, 2013) (providing World Bank inequality data).

4. *Non-Farm Business Sector: Labor Share (PRS85006173)*, FED. RESERVE BANK OF ST. LOUIS, <http://research.stlouisfed.org/fred2/series/PRS85006173?rid=47&soid=22> (last visited Jan. 25, 2012).

5. See Thomas Piketty & Emmanuel Saez, *The Evolution of Top Incomes: A Historical and International Perspective*, 96 AM. ECON. REV. 200 (2006); see also CONG. BUDGET OFFICE, TRENDS IN THE DISTRIBUTION OF HOUSEHOLD INCOME BETWEEN 1979 AND 2007 (Oct. 2011), available at <http://cbo.gov/sites/default/files/cbofiles/attachments/10-25-HouseholdIncome.pdf>.

6. Andrew G. Berg & Jonathan D. Ostry, *Equality and Efficiency*, FIN. AND DEV., Sept. 2011, at 12, available at <http://www.imf.org/external/pubs/ft/fandd/2011/09/Berg.htm> (last visited Jan. 25, 2013).

from homicide to teenage pregnancy, are worse in more unequal societies.⁷ Rising inequality is bad for the social fabric and has been the trend in the United States for the last three decades.

In U.S. policy discussions, growing inequality is most often described as the outcome of market forces. Globalization and technological change in the skills needed in production are the two most common explanations.⁸ In this article we summarize our prior research showing that the financialization of the U.S. economy had been a major driver of the rise of income inequality in the U.S. as well as the destruction of good jobs. One aspect of this process has been the concentration of economic, political, and market power in a few large financial institutions, allowing them to absorb an increasing proportion of the economic value produced in the United States. Another dimension of this process is that corporations in the non-finance sectors have increasingly shifted their investment strategies from production and employment in the real economy to financial speculation and, as they have done so, reduced employment and increased inequality.

II. DEREGULATION AND FINANCIALIZATION⁹

Prior to 1980 the finance sector was regulated to protect both consumers and the economy more generally from the concentration of speculative investment and financial power that occurred prior and contributed to the Great Depression. Most banking activity could not be carried out across state lines; deposit-taking, insurance, and investment banking required different firms; and in most states there were usury rules limiting the interest rates charged on debt. The low-growth, high-

7. KATE PICKETT & RICHARD WILKINSON, *THE SPIRIT LEVEL: WHY GREATER EQUALITY MAKES SOCIETIES STRONGER* (Bloomsbury Press 2009).

8. On the theory of skill-biased technological change leading to increased income inequality and declining labor shares of income, see Daron Acemoglu, *Labor and Capital Augmenting Technical Change*, 1 J. EUR. ECON. ASS'N 1 (2003), and Daron Acemoglu, *Technical Change, Inequality, and the Labor Market*, 40 JOURNAL OF ECONOMIC LITERATURE 7 (2002). On the linkage between globalization and U.S. income inequality, see Arthur S. Alderson & François Nielsen, *Globalization and the Great U-Turn: Income Inequality Trends in 16 OECD Countries*, 107 AM. J. SOC. 1244 (2002), and Tali Kristal, *Good Times, Bad Times: Postwar Labor's Share of National Income in Capitalist Democracies*, 75 AM. SOC. REV. 729 (2010).

9. An extended version of the analysis in this section can be found in Donald Tomaskovic-Devey & Ken-Hou Lin, *Income Dynamics, Economic Rents, and the Financialization of the U.S. Economy*, 76 AM. SOC. REV. 538 (2011) [hereinafter *Income Dynamics*].

inflation macro-economy of the 1970s led to the mobilization of the large firm corporate sector to push for economic deregulation, lower taxes, and a smaller state.¹⁰ The neoclassical market consensus in the economics profession reinforced this political agenda with a disciplinary skepticism of regulation and a preference for market solutions to policy problems.¹¹ This emerging neoliberal orientation rejected state responsibility for managing the economy to promote the well-being of citizens in favor of fostering a pro-business climate characterized by limited regulation. David Harvey suggests that one of the defining actions of neoliberal policy was to protect financial institutions at all costs.¹²

One of the central developments of the 1970s crisis era was stagflation—the joint occurrence of slow or no economic growth and high inflation. Slow growth led to fewer outlets for domestic investment. Inflation undermined the traditional banking practice of borrowing money from depositors and lending it to borrowers and led to a sharp drop in bank profitability. The Federal Reserve Bank fought inflation by rapidly increasing interest rates between 1979 and 1981.¹³ This tight monetary policy slowed down inflation in the early 1980s and lured foreign capital to invest in U.S. interest bearing bonds. In 1984, in order to further encourage the flow of capital into the United States, the Reagan administration removed the 30% tax on foreign interest income, intensifying the flow of foreign investment into the United States.¹⁴

Inflation, of course, is good for people with debt, but bad for

10. SEYMOUR M. MILLER & DONALD TOMASKOVIC-DEVEY, *RECAPITALIZING AMERICA: ALTERNATIVES TO THE CORPORATE DISTORTION OF NATIONAL POLICY* (1983); MICHAEL USEEM, *THE INNER CIRCLE: LARGE CORPORATIONS AND THE RISE OF BUSINESS POLITICAL ACTIVITY IN THE U.S. AND U.K.* (1984); MICHAEL USEEM, *EXECUTIVE DEFENSE: SHAREHOLDER POWER AND CORPORATE REORGANIZATION* (1993); DAVID VOGEL, *FLUCTUATING FORTUNES: THE POLITICAL POWER OF BUSINESS IN AMERICA* (1989).

11. Marion Fourcade-Gourinchas & Sarah L. Babb, *The Rebirth of the Liberal Creed: Paths to Neoliberalism in Four Countries*, 108 *AM. J. SOC.*, 533 (2002); Dustin Avent-Holt, *The Political Dynamics of Market Organization: Cultural Framing, Neoliberalism, and the Case of Airline Deregulation*, 30 *SOC. THEORY* 283 (2012).

12. DAVID HARVEY, *A BRIEF HISTORY OF NEOLIBERALISM* (2005); DAVID HARVEY, *THE ENIGMA OF CAPITAL AND THE CRISIS OF CAPITALISM* (2010).

13. Krippner, *supra* note 1; Gerald A. Epstein & Arjun Jayadev, *The Rise of Rentier Incomes in the OECD Countries: Financialization, Central Bank Solidarity and Labor Solidarity*, in *FINANCIALIZATION IN THE WORLD ECONOMY*, 46 (Gerald A. Epstein ed., 2005).

14. Greta R. Krippner, *The Political Economy of Financial Exuberance*, in *30B MARKETS ON TRIAL: THE ECONOMIC SOCIOLOGY OF THE U.S. FINANCIAL CRISIS: PART A RESEARCH IN THE SOCIOLOGY OF ORGANIZATIONS* 141 (Michael Lounsbury & Paul M. Hirsch eds., 2010).

debt holders. In this way inflation transferred income from banks to households and firms with fixed interest debt. While tight monetary policy stabilized the income of the finance sector by taming inflation, it was deregulation that fundamentally shifted the basic structure of the economy to favor the financial sector. In 1978 the Supreme Court ruled that credit card companies could charge the allowable interest rate in the state in which they were “located.”¹⁵ Most credit card companies quickly incorporated in South Dakota or Delaware, states without usury laws. The Depository Institutions Deregulation and Monetary Control Act of 1980¹⁶ removed regulatory caps on interest paid on savings accounts, allowed credit unions and savings and loans to offer interest on checking accounts, and preempted many state usury caps on interest rates charged by depository institutions.¹⁷ In 1985, the Federal Reserve began to allow bank holding companies to own banks in multiple states.¹⁸ The 1994 Riegle-Neal Interstate Banking and Branching Act repealed the final prohibitions on interstate banking. The outcome was a surge in bank mergers, resulting in a growing concentration of finance activity in fewer, larger banks. Eventually, the U.S. Congress in the Gramm-Leach-Bliley Act of 1999 repealed parts of the 1933 Glass-Steagall Act, making it legal for investment banks, commercial banks, and insurance companies to become affiliates through a common holding company.¹⁹ This legitimized the already ongoing expansion of bank holding companies, which operated simultaneously in all financial markets, created a new consolidated financial services industry in which household and commercial banking, insurance, and investment services could all be provided by a single firm, and eventually generated the systemic (i.e., concentrated densely networked) risk associated with the financial collapse of the later 2000s.²⁰

15. *Marquette Nat'l Bank of Minneapolis v. First of Omaha Serv. Corp.*, 439 U.S. 299 (1978).

16. Pub. L. No. 96-221, 94 Stat. 132.

17. An extended version of the analysis in this section can be found in *Income Dynamics*, *supra* note 9.

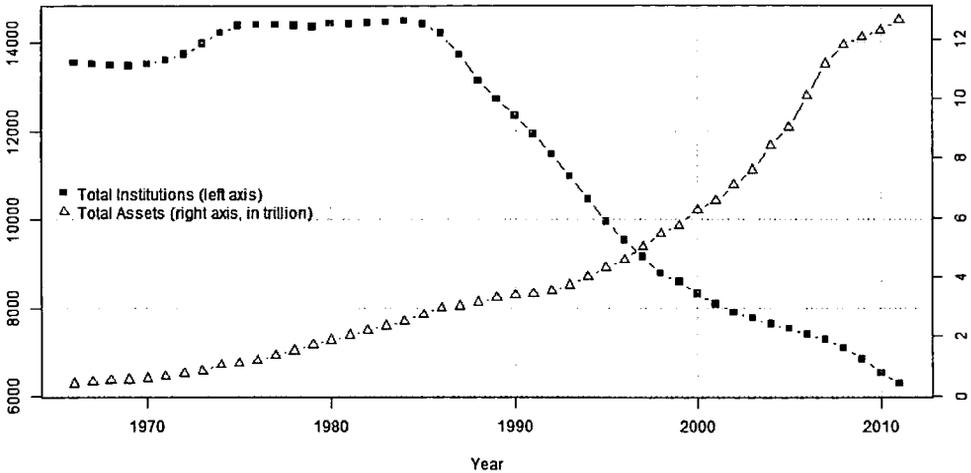
18. *Northeast Bancorp, Inc. v. Bd. of Governors of the Fed. Reserve Sys.*, 472 U.S. 159 (1985) (finding state statutes that allowed interstate bank acquisitions by bank holding companies to be authorized by the Bank Holding Company Act and to not violate the constitution).

19. Gramm-Leach-Bliley Act, Pub. L. No. 106-102. 113 Stat. 1338 (1999).

20. See Davis, *supra* note 2; see also Mauro F. Guillén & Sandra Suárez, *The Global Crisis of 2007-2009: Markets, Politics, and Organizations*, in 30A *MARKETS ON TRIAL: THE ECONOMIC SOCIOLOGY OF THE U.S. FINANCIAL CRISIS: PART A RESEARCH IN THE SOCIOLOGY*

Even as the largest financial service firms became cross-sector bank holding companies, the regulatory system remained fragmented, mirroring the Glass-Steagall mandated fragmentation of financial service activity. Fragmented regulation meant that financial services firms could shop for regulators. Similarly, new legislation in the late 1990s left new financial instruments, such as credit default swaps and over-the-counter derivatives, largely unregulated. No regulator had an overview of the whole system, mirroring the increasing within-firm complexity of financial service firms.²¹ During the 1980s and 1990s both the Federal Reserve and the Securities and Exchange Commission pulled back from their regulatory role and became cheerleaders for new financial instruments, allowing new organizational arrangements to flourish without regulatory oversight.

Figure 1. Growing Financial Assets and Concentration of Finance, 1966-2011²²



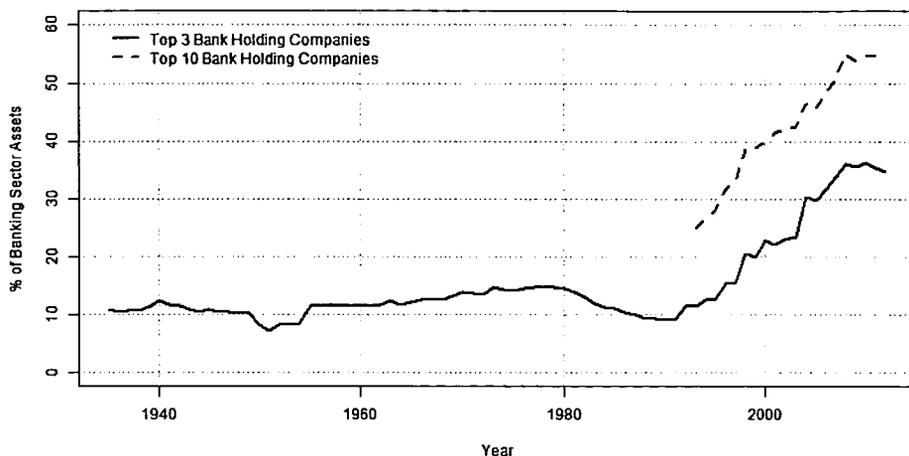
OF ORGANIZATIONS 257 (Michael Lounsbury & Paul M. Hirsch eds., 2010).

21. See Guillén & Suárez, *supra* note 21; see also Neil Fligstein & Adam Goldstein, *The Anatomy of the Mortgage Securitization Crisis*, in 30A MARKETS ON TRIAL: THE ECONOMIC SOCIOLOGY OF THE U.S. FINANCIAL CRISIS: PART A, RESEARCH IN THE SOCIOLOGY OF ORGANIZATION 29 (Michael Lounsbury & Paul M. Hirsch eds., 2010); Jacob S. Hacker & Paul Pierson, *Winner-Take-All Politics: Public Policy, Political Organization, and the Precipitous Rise of Top Incomes in the United States*, 38 POL. & SOC'Y 152 (2010) (referring to this absence of adaptive regulation in the face of new finance sector organizational forms and products as “regulatory drift”).

22. *Historical Statistics on Banking (HSOB)*, FDIC, <http://www2.fdic.gov/hsob/index.asp>.

Figure 1 shows the increasing concentration of the banking industry. As the size of assets (in real dollars) controlled by the banking sector increased between 1966 and 2011, the total number of banking institutions experienced a sharp decline since the late 1980s. Figure 2 presents the proportion of banking assets owned by the top three bank holding companies since the 1930s. It shows that the top three banks in the U.S. now own over 35% of the assets in the banking sector, while more than half of the banking assets are controlled by merely ten firms.

Figure 2. The Concentration of Assets in the Banking Industry, 1935-2012²³



Banks, now allowed to both merge and operate across state lines, controlled the rapidly growing financial assets in the economy. At the same time, the rise of institutional investors, both private (e.g., pension funds) and public (e.g., countries running budget surpluses such as Japan in the 1980s, China more recently) provided a steady source of investment capital to feed continued U.S. financialization.²⁴ By 2008 the U.S. accounted for 43% of all capital imports in the world.²⁵

23. *Historical Statistics on Banking (HSOB)*, FDIC, http://www2.fdic.gov/sdi/download_large_list_outside.asp (providing HSOB data since 1992; data prior to 1992 was requested via The Freedom of Information Act).

24. ÖZGÜR ORHANGAZI, *FINANCIALIZATION AND THE US ECONOMY* (2008).

25. Guillén and Suárez, *supra* note 21.

Meanwhile, the sector invented new financial instruments, such as mutual funds, hedge funds, credit default swaps and bundles securities, to absorb the increased investment flow associated with the rise in institutional investors and diversion of household savings from traditional savings accounts into financial markets.²⁶

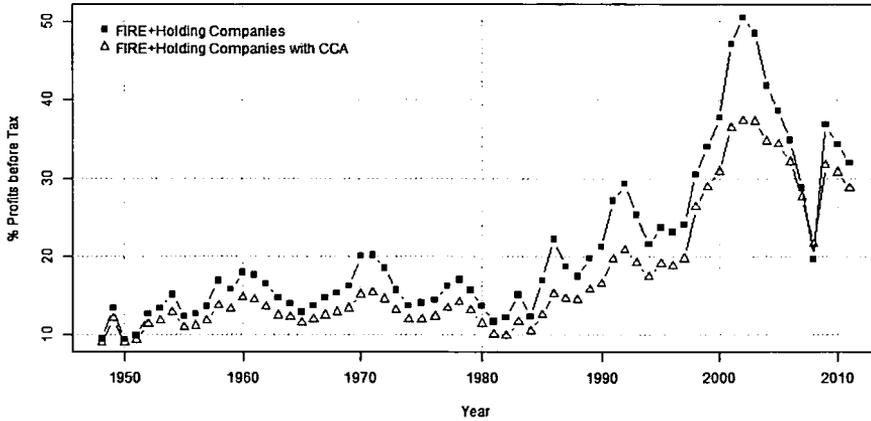
III. INCOME REDISTRIBUTION INTO THE FINANCE SECTOR

Figure 3 illustrates the result of the institutional shifts that facilitated finance sector concentration and regulatory drift relative to the emerging price setting power of the sector. The figure charts the increasing concentration of US income in the financial sector. From the end of World War II until the early 1980s the FIRE sector²⁷ realized between ten and fifteen percent of the profits in the U.S. economy. After 1980 the share of profits in this sector soared, with the lion share going to banks and bank holding companies. Although the concentration of profits in the finance sector crashed with the world economy in 2008, it has since rebounded. In 2011, the most recent date for which we have numbers, almost a third of the profits generated by the private sector were controlled by financial firms.

26. See Davis, *supra* note 2; see also Fligstein & Goldstein, *supra* note 24.

27. FIRE refers to Finance, Insurance and Real Estate industries. Across the period, the real estate component is fairly stable; the growth in the series is being driven by increased profits in security and investments, insurance, and especially, banking. See further discussion in *Income Dynamics*, *supra* note 9.

Figure 3. FIRE Sector Profits/All Profits in the U.S. Economy, 1948-2011²⁸



Across the same period the earnings of employees in the financial sector, especially employees in investment banking and hedge funds, surged (see Figure 4). From 1945 to about 1980, employees of investment banks earned on average about twice that of others in the economy. By the time of the 2008 financial collapse, earnings had risen to four times the national average. They collapsed somewhat after the crash, but have since rebounded. Of course, this describes the average across the whole industry. In 2007 workers employed in this industry earned \$6,891 per week nationally but much more—\$16,918 per week—if employed in Manhattan. In stark contrast, in 2007 the average American earned only \$884 a week. Between 2006 and 2007, just prior to the collapse of the financial system, wages in securities and commodities firms grew a remarkable 16.4% nationwide and 21.5% in Manhattan.²⁹ Employees on Wall Street, including CEOs and investment managers in commercial and investment banks, bank holding companies, and hedge funds made up an increasing share of the very highest earners in the economy.³⁰ Overall, finance's share of

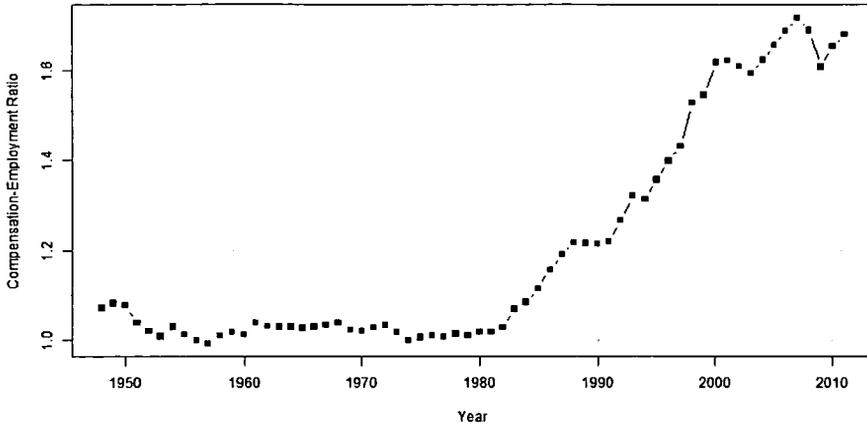
28. *National Income and Product Accounts*, U.S. DEP'T OF COM., BUREAU OF ECON. ANALYSIS, http://www.bea.gov/iTable/index_nipa.cfm. CCA stands for Capital Consumption Allowance, which is an accounting estimate of the amount of capital consumed in the production process, which should not be taxed as profits.

29. Andrew Sum et al., *The Great Divergence: Real-Wage Growth of All Workers Versus Finance Workers*, 51 CHALLENGE 57 (2008).

30. Stephen N. Kaplan & Joshua Rauh, *Wall Street and Main Street: What Contributes*

national income rose 18% (absolutely, not relatively) in the U.S. after 1980, more than in any of the other OECD countries.³¹

Figure 4. Average Compensation Changes in the FIRE Sector, 1948-2011³²



Taking pre-1980 level profits and compensation as a reference, we estimate that between 1980 and 2008 the profit and earnings income transferred into the finance sector as a result of the financialization of the U.S. economy was \$6.5 trillion dollars. This is about six times the cost of the Afghanistan and Iraq Wars put together and about half of the total U.S. cumulative federal deficit. The financialization of the U.S. economy has produced a tremendous transfer of income and wealth from both households and the real economy into financial sector firms, their owners, and, to some extent, their employees.³³

The important insight is that this transfer of income was not simply the result of market forces. Changes in the institutional and regulatory structure of the market were central to producing this movement of income into the finance sector.

to the Rise in the Highest Incomes? (Nat'l Bureau of Econ. Research, Working Paper No. 13270, 2007).

31. Epstein & Jayadev, *supra* note 14.

32. *National Income and Product Accounts*, U.S. DEP'T OF COM., BUREAU OF ECON. ANALYSIS, http://www.bea.gov/iTable/index_nipa.cfm. The Ratio is calculated as (FIRE Total Compensation/Private Economy Total Compensation)/(FIRE Total Full-Time Equivalent Employment/Private Economy Total Full-Time Equivalent Employment).

33. Tomaskovic-Devey & Lin, *supra* note 9.

IV. THE FINANCIALIZATION OF THE REST OF THE ECONOMY

The deregulation of financial activity, especially ending organizational limitations on financial activities, allowed non-financial firms to expand their financial investment strategies as well. Manufacturing and retail firms have long been allowed to offer consumer debt in order to increase sales of their main products. General Motors Acceptance Corporation (“GMAC”) was founded in 1919. GE Capital was created in 1943. Ford established its financial service provider Ford Motor Credit in 1959. During the 1980s these firms and many others changed their behaviors. In the 1980s both GM and Ford entered mortgage markets, and in the 1990s expanded their activities to include insurance, banking, and commercial finance. In the 1980s GE Capital expanded to small business loans, real estate, mortgage lending, credit cards, and insurance. After running a close second for decades, it topped GMAC as the largest nonbank lender in 1992.³⁴ In recent years, GE’s financial unit consistently brought in more than half of GE’s profits.³⁵ In 2004, GM reported that 66% of its \$1.3 billion quarterly profits came from GMAC; the same year Ford reported a loss in its automotive operation, but \$1.17 billion in net income, primarily from its financial operation.³⁶

These are not isolated examples. Figure 5 presents the ratio of financial income (interests, dividends, and capital gains.) to realized profits³⁷ for all non-finance firms and for manufacturing firms from 1970 to 2007. Financial income here consists of interest, dividends, and capital gains, and excludes income from the sale of goods and services. Since the late 1970s, financial income has become a significant stream of revenue for U.S. corporations. Among non-finance firms the ratio was relatively stable and hovered around 0.20 through the late 1970s.

34. These and other examples come from Ken-Hou Lin & Donald Tomaskovic-Devey, *Financialization and U.S. Income Inequality, 1970-2008*, 118 AM. J. OF SOC. 1284 (2013) [hereinafter *Financialization*].

35. David Kocieniewski, *G.E.’s Strategies Let It Avoid Taxes Altogether*, N.Y. TIMES, Mar. 24, 2011, available at http://www.nytimes.com/2011/03/25/business/economy/25tax.html?pagewanted=all&_r=0.

36. Danny Hakim, *Detroit Profits Most from Loans, Not Cars*, N.Y. TIMES, July 22, 2004, available at <http://www.nytimes.com/2004/07/22/business/detroit-profits-most-from-loans-not-cars.html>.

37. We calculate realized profits as the sum of accounting profits before tax and the capital consumption allowance.

The ratio of financial revenue to profits grew to more than 0.35 by 1990, surging again to 0.40 around the turn of the century. The pattern is more extreme among manufacturing firms: dependence on financial income increased by a factor of three over the past thirty years. In this century earnings generated through financial channels is larger than half of the total profits earned by manufacturing firms.

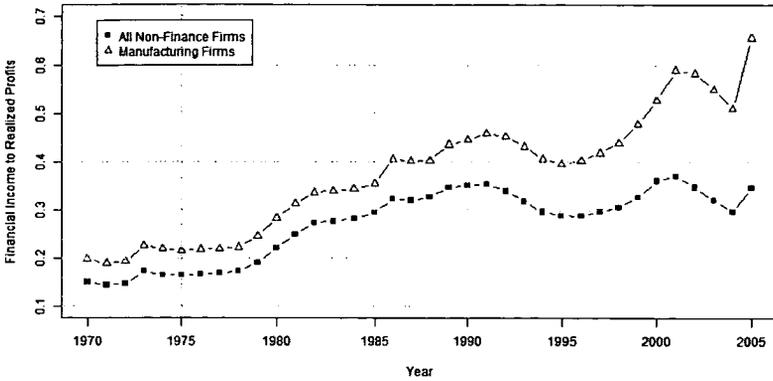
The change in firm investment behavior was not only about changes in regulation. During the 1980s the finance conception of the firm replaced managerial commitments to investment and innovation in production.³⁸ Managerial goals of increasing stock prices in the short term displaced increased market share.³⁹ The focus on stock prices was reinforced by the linking of top management pay to stock options rather than long term market share, sales, or production based profit. The increased financial engagement of non-financial business, the rise of shareholder activism and the development of a market for corporate control shifted managerial orientations from long-term goals of corporate growth to short-term goals of profitability.⁴⁰

38. See Davis, *supra* note 2; see also NEIL FLIGSTEIN, *THE ARCHITECTURE OF MARKETS: AN ECONOMIC SOCIOLOGY OF TWENTY-FIRST-CENTURY CAPITALIST SOCIETIES* (Princeton University Press 2001).

39. Frank Dobbin & Dirk Zorn, *Corporate Malfeasance and the Myth of Shareholder Value*, 17 *POLITICAL POWER AND SOCIAL THEORY*, 179-198 (2005); DAN KRIER, *SPECULATIVE MANAGEMENT: STOCK MARKET POWER AND CORPORATE CHANGE* (2005).

40. See Davis, *supra* note 2; see also Engelbert Stockhammer, *Financialisation and the slowdown of accumulation*, 28 *CAMBRIDGE JOURNAL OF ECONOMICS*, 719-741; USEEM, *supra* note 10; MICHAEL USEEM, *INVESTOR CAPITALISM: HOW MONEY MANAGERS ARE CHANGING THE FACE OF CORPORATE AMERICA* (BasicBooks 1996).

Figure 5. Financial Revenue over Realized Profits, Non-Financial Firms, 1970-2007⁴¹



Nonfinancial firms increasingly invested in financial instruments instead of their core businesses, growing by one estimate from 28% of total investments in financial instruments before 1980 to fully half by 2000. At the same time, the financial sector absorbed significant resources from the non-financial corporations. Prior to 1980, an average non-finance firm paid less than 30% of its revenue to the finance sector as either interest, dividends, or stock buybacks. The number became as high as 78% afterward, with a long term average of 54% between 1980 and 2000.⁴²

V. FINANCIALIZATION AND NON-FINANCE SECTOR EMPLOYMENT

If financialization represents a reduced commitment to employment and production in favor of financial investments, it would not be surprising to find that financial strategies pursued by U.S. corporations led to reduced employment. This could happen for a number of reasons. The most obvious is that financial assets may displace investment in production.⁴³ Another aspect of financialization

41. *SOI Tax Stats – Corporation Complete Report*, IRS, <http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report>. Data prior to 1994 exist only in hard copies and were converted to machine readable format by the authors. Financial income includes interests, dividends, and capital gains.

42. Davis, *supra* note 2.

43. Evidence of investment displacement can be found in Özgür Orhangazi, *Financialisation and Capital Accumulation in the Non-Financial Corporate Sector: A Theoretical and Empirical Investigation on the U.S. Economy*, 32 *CAMBRIDGE J. ECON.* 863 (2008).

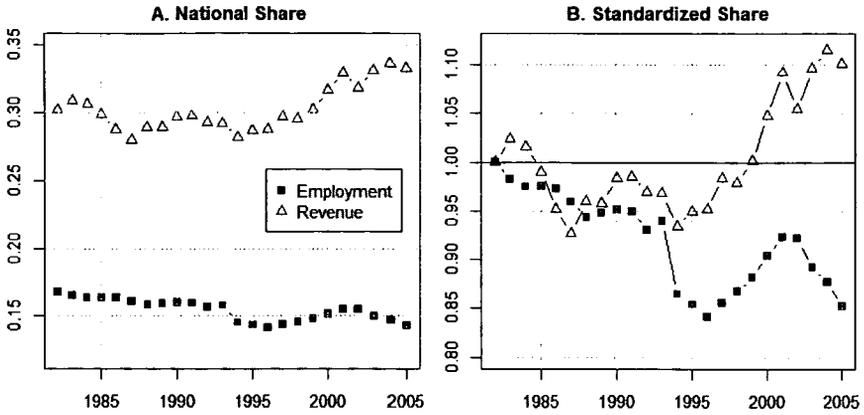
has been the increased reliance on debt as a source of capital. Many companies, such as Pepsi, McDonald and Philip Morris, are substituting debt for stock offerings.⁴⁴ Through the power of leverage, this practice increases the reported return on investment, even when absolute profits dip, and this inflates stock prices.⁴⁵ Debt holders, unlike stock holders, must be paid. This shift prioritized debt payments relative to employment costs. Finally, the shareholder value movement rewards executives who abandon efforts to increase production and market share and embrace strategies of downsizing and profit distribution.⁴⁶

44. Evidence for this trend can be found in Ken-Hou Lin, *Financialization and Firm Employment Dynamics, 1982-2005* (2013), (unpublished manuscript) (on file with the University of Massachusetts, Amherst) *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2284507. Specific evidence for the firms mentioned here can be found in Casey Hoerth, *These Companies Are Minting Debt to Buy Back Stock*, SEEKING ALPHA (Apr. 8, 2013), <http://seekingalpha.com/article/1326111-these-companies-are-minting-debt-to-buy-back-stock>.

45. Evidence for this trend can be found in Jon Faust, *Will Higher Corporate Debt Worsen Future Recessions?*, FED. RESERVE BANK OF KANSAS CITY ECON. REV., Mar. 1990, at 19; and Thomas I. Palley, *Financialization: What It is and Why It Matters*, in *FINANCED CAPITALISM: MACROECONOMIC EFFECTS OF CHANGES IN THE FINANCIAL SECTOR* 29 (Eckhard Hein et al. eds., 2008).

46. That the shareholder value movement created such pressures is well documented. See, e.g., Jennifer E. Bethel & Julia Liebeskind, *The Effects of Ownership Structure on Corporate Restructuring*, 14 STRATEGIC MGMT. J. 15 (1993); Art Budros, *The New Capitalism and Organizational Rationality: The Adoption of Downsizing Programs, 1979-1994*, 76 SOC. FORCES 229 (1997); Art Budros, *Organizational Types and Organizational Innovation: Downsizing Among Industrial, Financial, and Utility Firms*, 15 SOC. F. 273 (2000); Art Budros, *The Mean and Lean Firm and Downsizing: Causes of Involuntary and Voluntary Downsizing Strategies*, 17 SOC. F. 307 (2002); Art Budros, *Causes of Early and Later Organizational Adoption: The Case of Corporate Downsizing*, 74 SOC. INQUIRY, 355 (2004); Taekjin Shin, *The Shareholder Value Principle: The Governance and Control of Corporations in the United States*, 7 Soc. Compass 829 (2013).

Figure 6. Revenue and Employment Share of Fortune 500 firms, 1982-2005⁴⁷

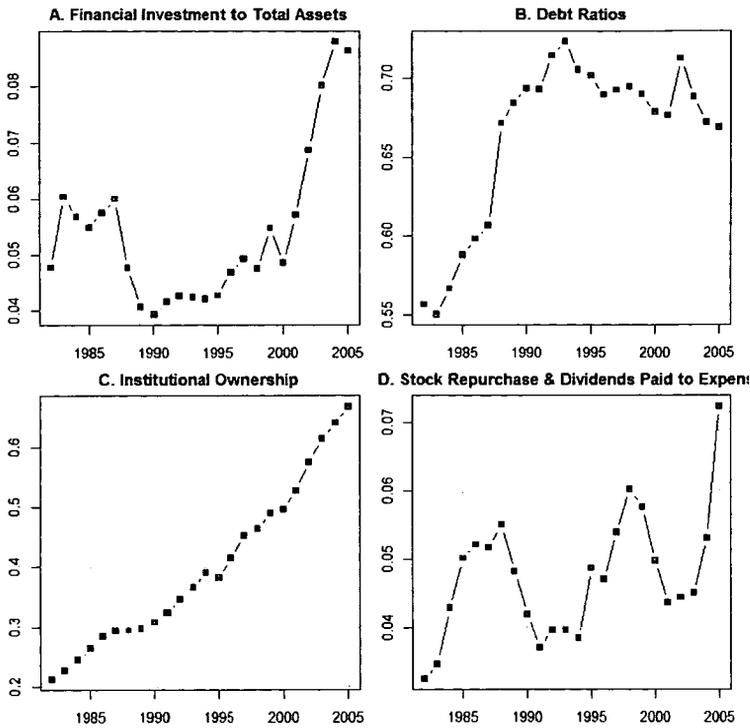


The largest U.S. firms have grown in economic importance even as they have generated fewer jobs. This disjuncture is in line with most narratives which identify these firms as most likely to pursue financialization strategies and respond to the short term expectations of the stock market and the shareholder value movement's preference for high returns on investment and reduction in employment.

Figure 6 summarizes the key trends for the largest U.S. firms. From 1982 to the late 1980s, these large firms' share of employment and revenue basically moved together. Starting in the late 1980s they began to diverge. The national share of economic activity as revenue grew strongly among the largest firms, while employment dropped.

47. S&P Compustat/EEO-1 Reports proprietary data file compiled by authors. Panel B standardizes both trends using their initial values.

Figure 7. Increasing Finance Orientation, Non-finance Fortune 500 Firms, 1982-2005⁴⁸



These firms changed their investment strategies as documented in Figure 7. The ratio of financial assets (includes items such as certificates of deposit, commercial paper, government and other marketable securities, and cash) over all investment soared after 1990, suggesting that the financialization strategy displaced investment in production of goods and services. Between the early 1980s and the mid-1990s, the ratio of debt to equity financing grew by 20%. Stock repurchasing followed the business cycle but displays a clear upward trend. Institutional investors became the dominant stockholders, even as equity declined as a source of investment capital.

We investigated the linkage between these four indicators of financialization and employment among the largest U.S. firms. Our

48. S&P Compustat/EEO-1 Reports proprietary data file compiled by authors. Financial investment includes items such as certificates of deposit, commercial paper, government and other marketable securities, and cash

statistical models predict shifts in total domestic employment as well as high (managers and professionals), medium (technicians, sales, crafts, and operatives) and low (laborers, clerical, and service) skilled jobs within each firm, as a function of the four financialization indicators. Our estimates are net figures of two measures of globalization (employment and revenue), a series of other firm characteristics, and industry specific employment trends.⁴⁹

The key findings are that financial investment, debt financing, and stock repurchases are all associated with decreased employment at all levels of job skill. Surprisingly, the growing role of institutional investors is associated with growing employment in high and mid-level jobs, not the declining employment predicted by accounts of the shareholder value movement. Rather, it is the more direct efforts of managers to increase stock price and move investments out of production and into financial instruments that reduces employment in these large publicly traded firms.

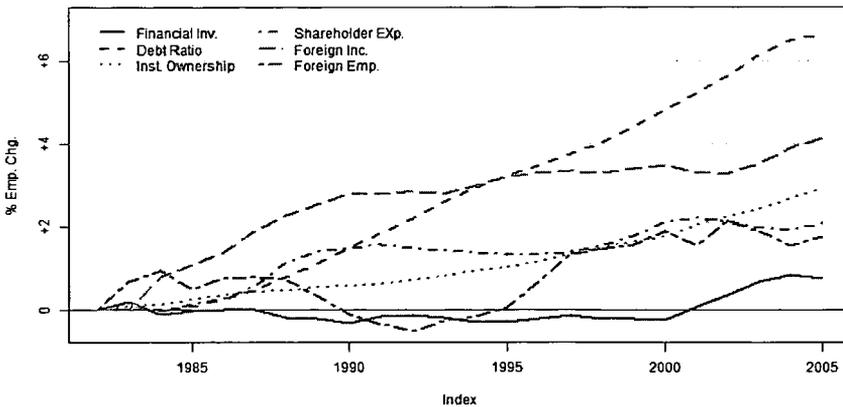
Figure 8 displays the pattern of effects of the financialization and globalization indicators on the employment size of the largest firms in the United States. We ask what if financialization had not happened? What if firms had not invested globally? Evidence shows that the substitution of debt for equity financing had very large negative effects on employment at all skill levels, and the effect is observable as early as the mid-1980s. The aggregate employment size of these firms would have increased about 6% if they had not replaced stock owners and equity with banks and other debt holders. Since debt holders must be paid, their claims on the value added by the firm take priority over equity owners and are in direct competition with employment. The effects of equity buybacks and that of institutional ownership are not as large but also begin in the mid-1980s to erode employment. Our estimates suggest that the shift in investment from production to financial assets does not undermine employment until the 2000s. Taken together, these changes reduced aggregate employment by about 12% by 2008. The two globalization indicators are also associated with

49. The technical paper which contains the details of this analysis is Ken-Hou Lin, *Financialization and Firm Employment Dynamics, 1982-2005* (2013), (unpublished manuscript) (on file with the University of Massachusetts, Amherst) *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2284507. The sample is drawn from all publicly traded non-finance firms that were ever listed in the Fortune 500 between 1982 and 2005 and includes 834 firms and 14,377 firm-year observations.

reduced employment at all skill levels. Added together globalization of investment and employment reduces large firm employment by about the same magnitude as financialization strategies did. Together globalization and financialization could plausibly account for almost all of the relative decline in employment among Fortune 500 firms.

One might argue that globalization is a market phenomenon that large firms must adapt to in order to survive. There is no such defense of financialization. Financialization is the result of a set of institutional shifts, especially the deregulation of financial activity, which encouraged investment in financial instruments and an orientation toward the capital markets rather than toward production. In the last section we saw that these institutional shifts led to large income shifts into the financial sector. In this section we witness how these same institutional shifts in market rules and incentives undermined employment in large firms.

Figure 8. Counterfactual Shifts in Employment Size for an Average Firm⁵⁰



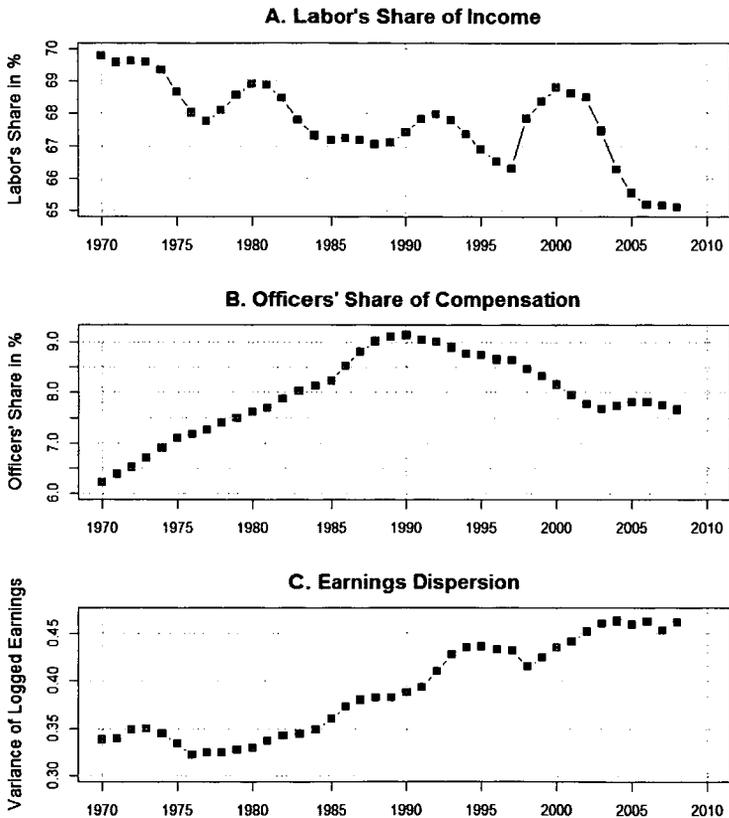
VI. FINANCIALIZATION AND NON-FINANCE SECTOR INCOME INEQUALITY

We have also developed models to gauge the consequences of the rise of financial investment strategies for income distributions. The

50. See Ken-Hou Lin, *The Rise of Finance and Firm Employment Dynamics, 1982-2005* (June 24, 2013) (unpublished manuscript), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2284507.

three big trends we have looked at are (1) the declining share of income that goes to employees as earnings rather than to owners as profits, (2) the rise in executive compensation relative to that of other workers, and (3) the increased inequality in earnings among employees. Figure 9 displays these trends for the non-financial economy.

Figure 9 Income Dynamics, Non-Finance, Non-Agricultural Economy, 1970-2008⁵¹



51. *National Income and Product Accounts*, U.S. DEP'T OF COM., BUREAU OF ECON. ANALYSIS, http://www.bea.gov/iTable/index_nipa.cfm; *SOI Tax Stats – Corporation Complete Report*, IRS, <http://www.irs.gov/uac/SOI-Tax-Stats-Corporation-Complete-Report>; Current Population Survey, US CENSUS, <http://www.census.gov/cps/>.

Our empirical strategy was to observe the investment and inequality behavior of industries over time. Firm level data, similar to that used for the employment study, is not available, so we performed these estimates with data at the industry level. To create such estimates we needed to create a plausible model that took into account other changes in the environment of corporations that might have also led to increases in inequality. We report our estimates of the long term effects of financialization on the three inequality trends in Figure 10, controlling for changes in workforce unionization, education and demographic composition, capital investment both general and in computers, and global market competition. The logic of our analyses is to examine within-industry change in financialization and income distributions controlling statistically for the main alternative explanations as to why inequality increased.⁵²

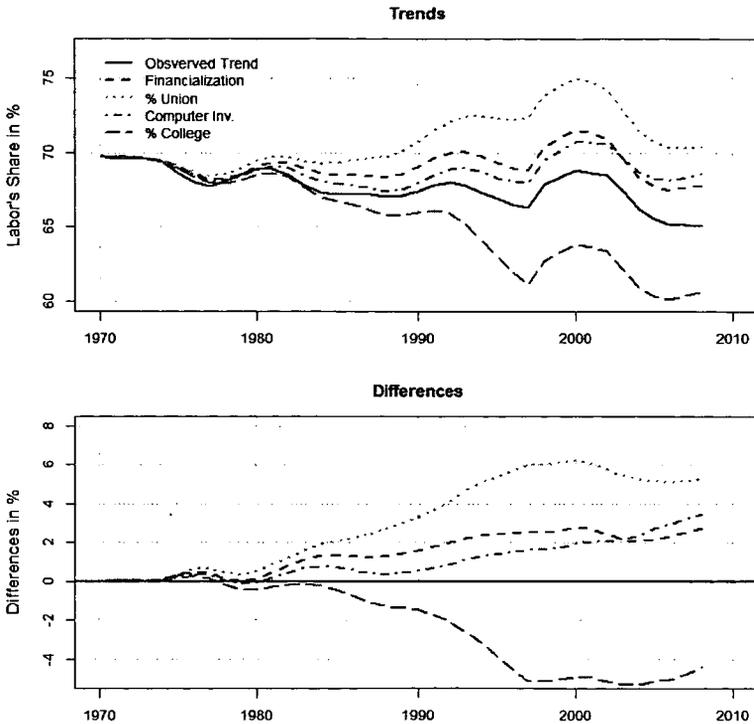
We found that the financialization strategies in the productive economy are substantively important drivers of all three inequality trends. These results hold despite strong statistical controls for other changes in the economic environment. One of the most impressive aspects of these results is that the connection between financialization and increased inequality, executive earnings surges, and declining income shares for employees is uniformly robust across time and sample. This is not true for the conventional explanations. Computer investment, for example, is significantly associated with declining labor share of income and increased earnings inequality, but only before 1997.

We used the estimates from our technical paper to ask what the inequality trends might have looked like if firms had not pursued financialization strategies. Figure 10 displays the trends for labor's share of national income. The black line represents what actually happened. Labor's share of income dropped absolutely 5%. The other lines each represent other major shifts in the economy, including financialization, declining unionization, investment in computers, and an increasingly educated labor force. Declining unionization and increased education were the two largest drivers of changes in labor share of income. The increase in college education in the labor force is associated with more than a 4% increase in labor's share of national

52. The formal development and presentation of these models can be found in *Financialization*, *supra* note 35.

income. This positive shift was more than offset by the decline in unionization, which is associated by the year 2000 with a 6% decline in labor's share of income. Based on our models, financialization and computer investment both produced between two and three percent declines in the share of national income going to workers.⁵³

Figure 10. Counterfactual Estimates of Changes in Labor Share⁵⁴



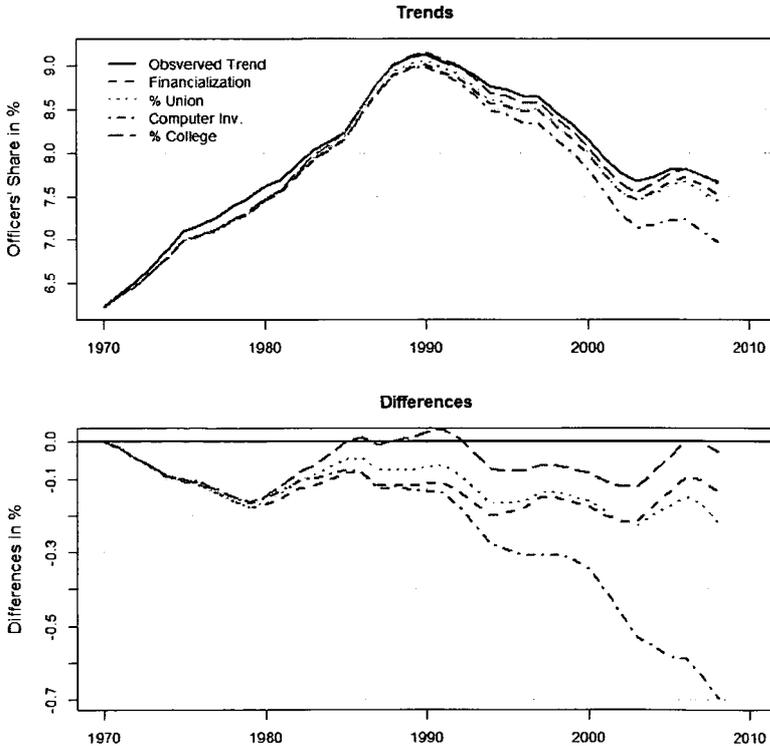
A similar exercise for executive pay is displayed in Figure 11. Officers' compensation rose from about 6% of the total wage bill in 1970 to 9% in 1990, falling back to 7.5% in 2009. Financialization is associated with about 2%, about one-third, of the rise in executive

53. These do not sum to the total because there are other variables in the model not reported here.

54. See *Financialization*, *supra* note 35.

compensation, about the same impact as declining unionization. Surprisingly, computer investment has the strongest effect. Why computer investment should lead to an increase in officer's compensation is not at all apparent. The conventional explanation around skill-biased technological change predicts increased returns to capital and increased inequality between low and high skill workers, but makes no prediction as to why top managers would reap such large rewards. We suspect, similar to other inequality trends, that CEOs and top executives have been particularly adept at absorbing all new surpluses in their firms. Money that otherwise might have gone to increased investment in production, employee compensation, taxes, or stockholders have increasingly been captured by those who control the largest corporations.

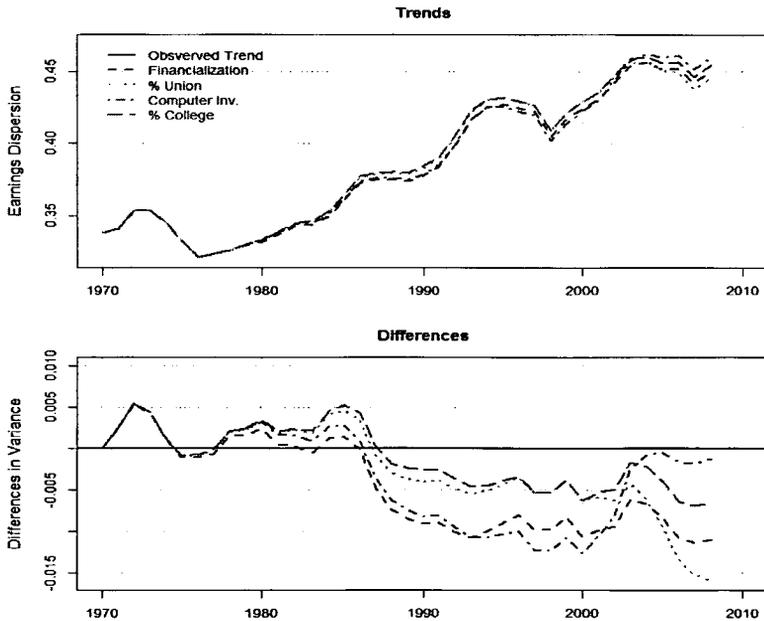
Figure 11. Counterfactual Estimates of Changes in Officers Compensation⁵⁵



Earnings inequalities among employees are the most thoroughly explored trend in the social science literature on inequalities. In our sample of non-financial industries, the variance in log income is our measure of inequality, and it rose absolutely 10% between the late 1970s and the turn of the century. None of the main explanations accounts for large parts of these trends. Financialization and computer investment each contribute about 1%, while declining unionization and increased college education contributed about half as much.

Overall, financialization is a robust contributor to all three inequality trends, but its influence seems to be strongest on the general decline in the bargaining power of labor and the increased income of executives. Financialization as a strategy has reduced the income of employees while increasing the share of income going to both owners and CEOs.

Figure 12. Counterfactual Estimates of Changes in Earnings Inequality⁵⁶



56. See *Financialization*, *supra* note 35.

VII. POLICY CONCLUSIONS

We have long known that the fundamental risk of capitalism is that it is driven by the interests and influence of capital and so runs the risk of immiserating citizens. This risk has been seen as tolerable when capitalism delivers growing standards of living to counterbalance inequalities of reward. The collapse of the financial system has drawn our attention to a second type of fundamental risk, this one systemic in nature, embedded in the high-risk behavior of a concentrated, interconnected banking system. Here the risk is of collapse, which threatens everyone, owners of capital and suppliers of labor alike. Financialization presents a systemic risk to the entire economy. We argue that financialization has also, in a less dramatic but no less consequential sense, produced the first more classic form of risk—the immiseration of the population.

Financialization is at its root a system of income redistribution which favors the finance sector over the non-finance sector, financial investments over investments in production, and shareholders and top executives over workers and middle-class citizens. In addition, financialization is a product of regulatory decisions, both decisions to deregulate and encourage the concentration of financial power in a few large institutions and the failure to regulate new financial instruments or strategies. As a result income increasingly is diverted from investment, employment, and production into financial instruments, and the economic surplus of the society pools in the accounts of the owners of financial instruments and financial service firms.

Our studies have several policy implications. First, it is a consensus across the political spectrum that the hyper-concentration in the finance sector increases the vulnerability of the U.S. economy. The consensual solution to reduce the systemic risk posed by concentrated finance is either deleveraging the colossal banks⁵⁷ or better yet breaking these banks up altogether. The results of our analysis recommend the latter. The concentrated market power possessed by these large banks not only creates systemic risk but also generates economic rent—the constant transfer of income from the productive sector to the finance sector. By breaking up the large financial institutions, we reduce the

57. See ANAT ADMATI & MARTIN HELLWIG, *THE BANKERS' NEW CLOTHES: WHAT'S WRONG WITH BANKING AND WHAT TO DO ABOUT IT* (2013).

likelihoods of future financial catastrophes as well as fraud,⁵⁸ anti-trust violations,⁵⁹ and conflicts of interests,⁶⁰ all of which are all too common practices in the contemporary finance sector. Furthermore, if markets are occupied by more sizable, but not gigantic, firms, the incentive to preserve reputation may become greater than the incentive to create short-term profits. Another approach is to create one or more government-owned corporations to directly provide affordable credit to small businesses and households. A public option would force the financial sector as a whole to become competitive and more efficient, provide prudent loans, and protect households and small business from predatory lending and fee-based financial services. The 2010 federal absorption of the student loan program is an example in progress.

Regulatory capture is always a risk, perhaps nowhere more than in the increasingly large and complex organization of bank holding companies. Regulators should avoid dependence on the information and the knowledge from the providers of the services and make regulatory decisions based on independent studies that emphasize the needs of the customers of financial service firms, not the preferences and needs of those firms.⁶¹ This will require substantially more research capacity than currently exists in the regulatory agencies. Moreover, the Wall Street-Washington revolving door needs to be sealed tightly. The post government employment restrictions of the SEC should be strengthened and extended to other regulatory agencies.

The Federal Reserve is a large part of the problem, defining its role in terms of the interests of the few large bank holding companies, rather than the society in general. The regulators' embrace of the

58. See Peter Lattman, *A Guilty Plea over Mortgage Bond Fraud*, DEALBOOK (Apr. 13, 2013), <http://query.nytimes.com/gst/fullpage.html?res=9C07E4DB1F3FF930A25757C0A9659D8B63>.

59. See Jesse Eisinger, *Swap Market, Like Libor, Is Vulnerable to Manipulation*, DEALBOOK (July 18, 2012, 12:15 PM), <http://dealbook.nytimes.com/2012/07/18/behind-credit-default-swaps-market-a-cartel-left-open-to-collusion/>. See also Jessica Silver-Greenberg, *MasterCard and Visa Settle Claims of Antitrust*, N.Y. TIMES, July 14, 2012, at B1; see also Matt Taibbi, *The Scam Wall Street Learned from the Mafia*, ROLLING STONE, June 21, 2012, available at <http://www.rollingstone.com/politics/news/the-scam-wall-street-learned-from-the-mafia-20120620>.

60. Graham Bowley, *With Settlement, Blankfein Keeps His Grip*, DEALBOOK (July 16, 2010, 4:27 AM), <http://dealbook.nytimes.com/2010/07/16/with-settlement-blankfein-keeps-his-grip/>; Joe Nocera, Op-Ed., *Rigging the I.P.O. Game*, N.Y. TIMES, Mar. 10, 2013, at SR1.

61. See JOHN KAY, DEP'T FOR BUS., INNOVATION & SKILLS, *THE KAY REVIEW OF U.K. EQUITY MARKETS AND LONG-TERM DECISION MAKING: FINAL REPORT* (2012).

efficient market hypothesis and the political strength of Wall Street in the executive and legislative branches of U.S. government are strong barriers to effective regulation. As money continues to be channeled from New York City to Washington, D.C., in order to influence the decisions on the future of the finance sector and the U.S. economy as a whole, real economic reform needs to begin with a political reform, with organized countervailing forces that restrain Wall Street and promote the interests of the citizens.⁶² We believe that the independence of regulatory agencies should be fostered and regulators should become proactive in fostering a smaller, less lucrative, and less speculative financial sector.

There is also a role for other large actors, such as state pension systems and non-financial firms that have not pursued financialization strategies, to bring pressure on Washington to increase the independence of regulators and reduce the power of the largest financial firms. We also encourage industrial and public sector unions to recognize financial regulation as directly relevant to the well-being of their members and take a more active role in the process of financial reform.

Finally, we consider the unthinkable. The dilemma of the current recovery is essentially a principal-agent problem. The government needs banks to provide credit to the productive sector and recharge the economy, while the post-crash guiding principles of these banks are profit-maximization strategies coupled with risk avoidance measures. A consequence of this disjunction is that the government continues to subsidize the banks through discount window loans and loan and deposit guarantees, while the banks are not expected to pass these subsidies to their customers. One estimate is that for the top 10 largest banks these loan subsidies and guaranties are worth \$83 billion dollars a year.⁶³ If the solvency of the finance sector is to be insured, some check on their market power should be explored. One solution to this problem is to restructure the incentives and tie the banking sector's profitability to economy-wide growth. Surplus profits could be taxed

62. See the discussion of the efficient markets hypothesis and political capture in James Crotty, *Structural Causes of the Global Financial Crisis: A Critical Assessment of the 'New Financial Architecture'*, 33 CAMBRIDGE J. ECON. 563 (2009).

63. The Editors, *Why Should Taxpayers Give Big Banks \$83 Billion a Year?*, BLOOMBERG (Feb. 20, 2013), <http://www.bloomberg.com/news/2013-02-20/why-should-taxpayers-give-big-banks-83-billion-a-year-.html>.

and redistributed for long-term investments in infrastructure, human capital, and research and development.