Cornell University
ILR School

Cornell University ILR School
DigitalCommons@ILR

Federal Publications

Key Workplace Documents

11-14-2011

Finance and the Economy: Occupy Wall Street in Historical Perspective

Mark Jickling
Congressional Research Service

Sean M. Hoskins
Congressional Research Service

Follow this and additional works at: http://digitalcommons.ilr.cornell.edu/key_workplace

This Article is brought to you for free and open access by the Key Workplace Documents at DigitalCommons@ILR. It has been accepted for inclusion in Federal Publications by an authorized administrator of DigitalCommons@ILR. For more information, please contact jdd10@cornell.edu.

Finance and the Economy: Occupy Wall Street in Historical Perspective

Abstract
[Excerpt] This report presents examples of political statements about the fundamental costs and benefits of finance and recent economic research that points to aspects of financial activity that may not be advantageous to the real economy. The report does not attempt a comprehensive survey of either literature, but provides a reminder of the breadth of the historical debates that have shaped congressional oversight of financial institutions and markets.

Some of the political remarks excerpted here strike the theme of conflict between the real economy and the paper profits derived from financial speculation, and include claims that the temptations of the latter draw resources away from the former, or that speculators misappropriate the rewards that would otherwise accrue to hardworking businessmen, farmers, and wage earners.

Apart from the normative judgments of political and populist outcry, economists have expanded on prior research that focused on finance's contribution to economic development to study whether an excessively large and complex financial system could be a drag on a country's economic growth. Among the questions raised are the following:

• When the volume of financial activity passes a certain threshold, does it have the potential to lower the rate or destabilize the pattern of growth?

• Do incentives to ignore long-term risks in search of short-term profits produce financial instability, leading to crises that may trigger deep recessions?

• Do the complex products of financial innovation yield any significant benefits to the real economy, or simply new opportunities for speculation? and

• Does growing income inequality, driven in part by financial sector compensation, have negative implications for the economy?

The research summarized in this report may represent the beginning of a revaluation of the role of finance in the economy, but much difficult work remains to be done before general statements can be formulated. This report, which will not be updated, attempts to show that the basic questions raised by Occupy Wall Street about the value of certain forms of financial activity are not new.

Keywords
finance, economic growth, risk, income inequality, Occupy Wall Street

Comments
Suggested Citation

Jickling, M. & Hoskins, S. M. (2011). *Finance and the economy: Occupy Wall Street in historical perspective*. Washington, DC: Congressional Research Service.

This article is available at DigitalCommons@ILR: http://digitalcommons.ilr.cornell.edu/key_workplace/871

Congressional Research Service

Finance and the Economy: Occupy Wall Street in Historical Perspective

Mark Jickling
Specialist in Financial Economics

Sean M. Hoskins
Analyst in Financial Economics

November 14, 2011

Congressional Research Service
7-5700
www.crs.gov
R42081

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

Wall Street and Main Street—the financial system and the real economy of goods and services—are bound together. If businesses large and small had to fund investment projects out of their own pockets, society would be significantly poorer. The financial system aggregates the savings of millions of households and allocates them to the most productive uses. The importance and value of this function are almost universally acknowledged and are axiomatic in market economics.

Nevertheless, the benefits of certain forms of financial intermediation to the real economy are not always apparent. American politics has a demonstrated history of attacks on Wall Street and financiers whose great personal fortunes appear disproportionate to their contribution to national prosperity. This tradition, which goes back at least to Thomas Jefferson, accuses high finance of siphoning off resources that could be better used elsewhere. A recurrent critique is that "swapping pieces of paper" is not only less useful than, but morally inferior to, actual production of goods and services, and that great concentrations of wealth represent a threat to democratic values. For all their lack of a unified, coherent program, the Occupy Wall Street protestors can be seen as the latest in a long series of anti-financial sector critiques.

This report presents examples of political statements about the fundamental costs and benefits of finance and recent economic research that points to aspects of financial activity that may not be advantageous to the real economy. The report does not attempt a comprehensive survey of either literature, but provides a reminder of the breadth of the historical debates that have shaped congressional oversight of financial institutions and markets.

Some of the political remarks excerpted here strike the theme of conflict between the real economy and the paper profits derived from financial speculation, and include claims that the temptations of the latter draw resources away from the former, or that speculators misappropriate the rewards that would otherwise accrue to hardworking businessmen, farmers, and wage earners.

Apart from the normative judgments of political and populist outcry, economists have expanded on prior research that focused on finance's contribution to economic development to study whether an excessively large and complex financial system could be a drag on a country's economic growth. Among the questions raised are the following:

- When the volume of financial activity passes a certain threshold, does it have the potential to lower the rate or destabilize the pattern of growth?
- Do incentives to ignore long-term risks in search of short-term profits produce financial instability, leading to crises that may trigger deep recessions?
- Do the complex products of financial innovation yield any significant benefits to the real economy, or simply new opportunities for speculation? and
- Does growing income inequality, driven in part by financial sector compensation, have negative implications for the economy?

The research summarized in this report may represent the beginning of a revaluation of the role of finance in the economy, but much difficult work remains to be done before general statements can be formulated. This report, which will not be updated, attempts to show that the basic questions raised by Occupy Wall Street about the value of certain forms of financial activity are not new.

Contents

Why Occupy Wall Street? 1
Views of Finance in U.S. History 1
Recent Economic Research 4
- Size of the Financial Industry 5
- Compensation 6
- Income Inequality 8
- Less Stable Financial System 8
- Costs of Financial Crises 9

Conclusion 10

Figures

Figure 1. Financial Sector Share of GDP and Total Corporate Profits, 1952-2010 5
Figure 2. Financial Sector Share of Total Nonfarm Employment and Employee Compensation, 1949-2010 7

Contacts

Author Contact Information 11

Why Occupy Wall Street?

The Occupy Wall Street demonstrations that began in September 2011 do not put forward any single set of grievances or demands. The protests reflect many points of views and widely different agendas. To the extent that a common concern may be identified, it is probably the gap between "the 1%"—wealthy traders and bankers at the top of the financial services sector—and "the 99%"—everyone else, including the demonstrators. According to the protestors, the 1% are thought to have too much wealth and power and to have interests in conflict with the economic well-being of the rest of the country.

The 1% vs. 99% critique, while it may mean different things to different people, suggests a set of propositions about the role of financial services in the economy, including the following:

- that the financial industry is now an excessive consumer of human and financial capital that could be more efficiently employed in the production of real goods and services;
- that exorbitant compensation of Wall Street traders (1) exacerbates income inequality and (2) encourages excessive risk-taking, which ultimately penalizes taxpayers, who must not only pay for bailouts of failed banks, but also suffer higher unemployment and slower economic growth during and after recessions that are worsened by financial crises;
- that complex new financial instruments and short-term speculative trading strategies have made a few individuals very wealthy, but have made the financial system, upon which all consumers and businesses depend, less stable; and
- that the industry has grown beyond its natural function of intermediation, or channeling savings from households to productive business investment, and has become a kind of self-enclosed casino.

This root-and-branch criticism of the financial sector, while not unrepresented in current and past research, is outside the mainstream of economics. One strain of American political thought, on the other hand, has included sweeping attacks on high finance, which has been recurrently portrayed as morally corrupt, as well as detrimental to productive enterprise, labor, and democracy. This report presents excerpts of political statements about the costs and benefits of finance and examples of recent economic research that points to aspects of financial activity that may not be beneficial to the real economy. The report does not attempt a comprehensive survey of the relevant political or economic literature, but provides a reminder of the historical debates that have shaped congressional oversight of financial institutions and markets.

Views of Finance in U.S. History

The major American political parties have often been divided on issues of economic and financial regulation, but they have shared "a belief in the rights of property, the philosophy of economic individualism, the value of competition, [and] they have accepted the economic virtues of

capitalist culture as necessary qualities of man."[1] Within that broad consensus, however, there has been space for sharp challenges to various forms of financial activity, often in the form of attacks on special interests.[2]

The original clash of economic views was between Thomas Jefferson's agrarian vision and Alexander Hamilton's projects to modernize government and private finance. In conversation with President Washington, Jefferson predicted that the introduction of national banking and paper money would have the effect of "withdrawing our citizens from the pursuits of commerce, manufactures, buildings, and other branches of useful industry, to occupy themselves and their capitals in a species of gambling, destructive of morality, and ... [introducing] poison into the government itself."[3]

Hamilton argued the reverse: "by contributing to enlarge the mass of industrious and commercial enterprise, banks become nurseries of national wealth; a consequence as satisfactorily verified by experience, as it is clearly deducible in theory."[4] He acknowledged the criticism that banking brought "temptations to overtrading," but argued that this was "an occasional ill, incident to a greater good."[5]

One reason Andrew Jackson vetoed the rechartering of the Bank of the United States in 1832 was his belief that the bank represented an unjust grant of monopoly powers that would enable the few to oppress the many:

> In the full enjoyment of the gifts of Heaven and the fruits of superior industry, economy, and virtue, every man is equally entitled to protection by law; but when the laws undertake to add to these natural and just advantages artificial distinctions, to grant titles, gratuities, and exclusive privileges, to make the rich richer and the potent more powerful, the humble members of society—the farmers, mechanics, and laborers—who have neither the time nor the means of securing like favors to themselves, have a right to complain of the injustice of their Government.[6]

Jackson's veto was followed by decades of debate over the currency, monetary policy, and bank regulation.[7] Eastern banks were commonly described as rapacious and anti-growth by western interests seeking easy money to underwrite rapid and risky economic development on the frontier.

During the Gilded Age of the late 19th century, the philosophy of Andrew Carnegie's "Gospel of Wealth"[8] was counterbalanced by harsh attacks on financiers like J.P. Morgan, whose control over

---

[1] Richard Hofstadter, quoted in: John Gerring, *Party Ideologies in America, 1828-1996* (Cambridge: Cambridge University Press, 1998), p. 4.

[2] See, e.g., Terri Bimes and Quinn Mulroney, "The Rise and Decline of Presidential Populism," *Studies in American Political Development*, vol. 18, fall 2004, pp. 152-157.

[3] Thomas Jefferson, "The Anas," in *Writings of Thomas Jefferson: Memorial Edition*, Washington: The Thomas Jefferson Association, 1903, vol. 1, p. 290. (Conversation of February 29, 1792.)

[4] "Report on a National Bank," in: *Reports of the Secretary of the Treasury of the United States* (Washington: Duff Green, 1828), p. 56.

[5] Ibid, p. 60.

[6] Andrew Jackson, "Veto Message Regarding the Bank of the United States," *Complete Messages & Papers*, vol. 3 (July 10, 1832), p. 1153.

[7] For an overview of the "bank wars," see Robert E. Wright and David J. Cowen, *Financial Founding Fathers: The Men Who Made America Rich* (Chicago: University of Chicago Press, 2006).

[8] In a famous essay, Carnegie argued that the forces that made civilization and progress possible naturally and (continued...)

financial markets and the economy was viewed as anti-democratic, and whose wealth was described as a product of the exploitation of hardworking farmers and businessmen.

Perhaps the peak of anti-Wall Street rhetoric was Theodore Roosevelt's phrase "malefactors of great wealth."[9] Roosevelt sought to reduce the power of trusts and monopolies; part of his attack was a moral distinction between finance and enterprise, appearing vividly in this article written while he served on the United States Civil Service Commission in 1895:

> There is not in the world a more ignoble character than the mere money-getting American, insensible to every duty, regardless of every principle, bent only on amassing a fortune, and putting his fortune only to the basest uses—whether these uses be to speculate in stocks and wreck railroads himself, or to allow his son to lead a life of foolish and expensive idleness and gross debauchery, or to purchase some scoundrel of high social position, foreign or native, for his daughter.[10]

Presidents Taft and Wilson continued Roosevelt's trust-busting policies. Wilson took up the idea that rather than facilitate industrial development, high finance could actually hinder it:

> Such a prohibition [on interlocking control of financial and nonfinancial corporations]will work much more than a mere negative good by correcting the serious evils which have arisen because, for example, the men who have been the directing spirits of the great investment banks have usurped the place which belongs to independent industrial management working in its own behoof. It will bring new men, new energies, a new spirit of initiative, new blood, into the management of our great business enterprises. It will open the field of industrial development and origination to scores of men who have been obliged to serve when their abilities entitled them to direct. It will immensely hearten the young men coming on and will greatly enrich the business activities of the whole country.[11]

Representing another strain in American political thought, Presidents Coolidge and Hoover took a much more positive view of Wall Street. Addressing the New York State Chamber of Commerce in 1925, Coolidge was expansive:

> We are met not only in the greatest American metropolis, but in the greatest center of population and business that the world has ever known. If any one wishes to gauge the power which is represented by the genius of the American spirit, let him contemplate the wonders which have been wrought in this region in the short space of 200 years....The foundation of this enormous development rests upon commerce. New York is an imperial city, but it is not a seat of government. The empire over which it rules is not political, but commercial.[12]

(...continued)

inevitably concentrated wealth in the hands of a few, and that wise philanthropy by those few was the best way to improve social well-being: "this wealth, passing through the hands of the few, can be made a much more potent force for the elevation of our race than if it had been distributed in small sums to the people themselves." "Wealth," *North American Review*, June 1889, online at http://www.fordham.edu/halsall/mod/1889carnegie.asp.

[9] Theodore Roosevelt, Speech at Pilgrim Memorial Monument, Provincetown, MA., August 20, 1907. Mem. Ed. XVIII, 99; Nat. Ed. XVI, 84. Roosevelt's accusation was that certain individuals had deliberately worsened the Panic of 1907 to discredit government regulation of the economy.

[10] Theodore Roosevelt, "American Ideals," *Forum*, February 1895, p. 25.

[11] Woodrow Wilson, Address to a Joint Session of Congress on Trusts and Monopolies, January 20, 1914.

[12] Calvin Coolidge, *Foundations of the Republic: Speeches and Addresses* (Freeport, NY: Books for Libraries Press, 1968), pp. 318-319.

Even after financial turmoil began in 1929, Hoover looked to Wall Street as a source of stability:

> There is no one group of which the public expects so much in assuring stability as the bankers, because in the vortex of these storms many values lose their moorings. Nor can any other group contribute so much in constructive thought and action to solve the problem either today or in the long run.
>
> Three most important relationships to these business movements lie in the banker's field. The first is what, for lack of better terms, we call psychology—both that contagious overoptimism which accelerates the inflation of the boom and those depths of fear and pessimism which deepen and prolong the depression. The American banker has come to occupy a unique position in the strategy of stability, for he is the economic adviser of American business. He is the listening post of economic movement. He in large measure makes or tempers its psychology.[13]

During the Depression, Franklin Roosevelt took sides against the financial sector, which was widely blamed as a cause of hard times:

> [W]e have been shocked by many notorious examples of injuries done our citizens by persons or groups who have been living off their neighbors by the use of methods either unethical or criminal... [including] high officials of banks or corporations who have grown rich at the expense of their stockholders or the public, [and] those reckless speculators with their own or other people's money whose operations have injured the values of the farmers' crops and the savings of the poor.[14]

He counted "business and financial monopoly, speculation, reckless banking, [and] class antagonism" among the "old enemies of peace."[15]

After World War II, financial markets and the economy enjoyed half a century of more-or-less unbroken prosperity, and attacks on Wall Street like the above became rare.[16] With the crisis of 2007-2009, the ensuing recession, and the weak recovery, however, old questions of economic fairness and the social utility of some of the financial sector's output have re-emerged. Congressional oversight of financial markets and institutions normally focuses on particular issues, rather than normative evaluations of the whole industry, but history suggests that questions about the value of certain financial activities to those who do not profit from them directly are not far below the surface.

Recent Economic Research

The textbook view is that financial intermediation is crucial to the creation of wealth. The consensus is that as financial systems and markets become larger and more sophisticated, the cost of borrowing comes down and firms seeking to raise capital benefit from more choices and increased flexibility. The notion that there may be diminishing social returns to scale in financial

[13] Address to the American Bankers' Association, October 2, 1930, in: *Public Papers of the Presidents of the United States: Herbert Hoover 1930* (Washington: Government Printing Office, 1976), p. 397.

[14] Franklin Delano Roosevelt, State of the Union Address, January 3, 1934.

[15] Franklin Delano Roosevelt, Speech at Madison Square Garden, October 31, 1936.

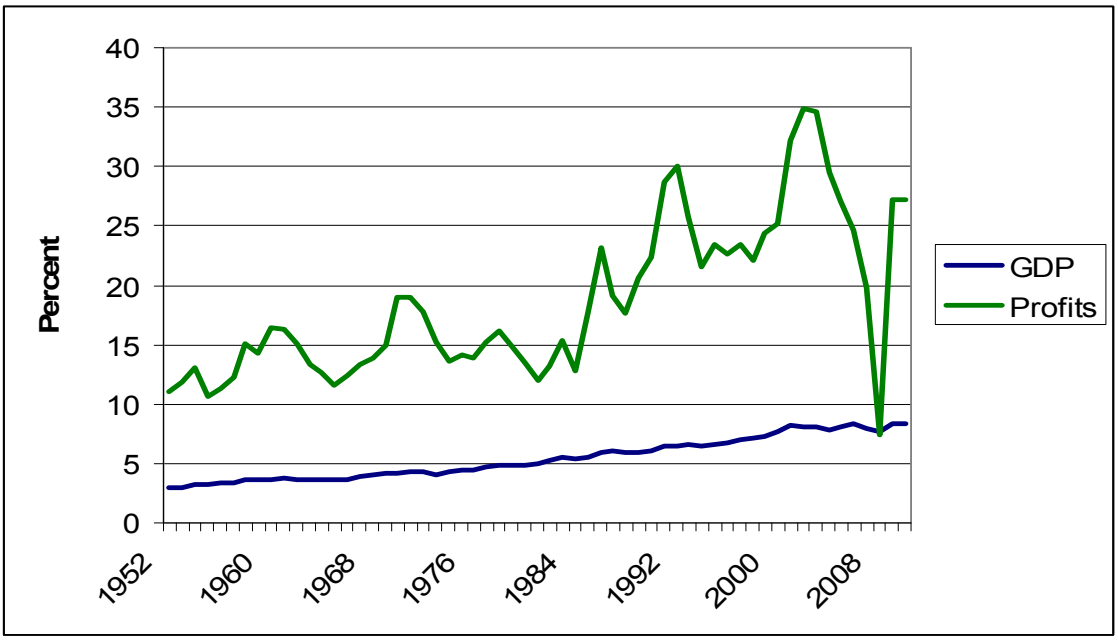
[16] Gerring, *Party Ideologies in America, 1828-1996,* pp. 232-253.

services appears infrequently in the literature. In light of the recent financial crisis, however, some in the economics field have started to rethink the dominant views about the relationship between the financial system and economic growth. This section gives examples of this research, but a comprehensive survey of the literature is beyond the scope of this report.

Size of the Financial Industry

Political critiques often assume that the financial system has grown too large relative to the rest of the economy. **Figure 1** shows that finance has indeed grown steadily as a percentage of gross domestic product (GDP) over the past 60 years, but there is no generally accepted empirical method for determining the optimal size of the financial sector.[17]

Figure 1. Financial Sector Share of GDP and Total Corporate Profits, 1952-2010



Source: Bureau of Economic Analysis (GDP) and Federal Reserve *Flow of Funds Accounts*, Table F.7 (profits).

Notes: The series on profits represents domestic financial profits as a percentage of all corporate profits before tax. Share of GDP measures value added in finance and insurance (real estate, rental, and leasing are not included) as a percentage of GDP.

Figure 1 also shows that financial industry profits, as a share of all corporate pre-tax profits, have grown and that in the early 1980s the trend accelerated: thereafter, profits grew at a faster rate than output.[18] This trend, briefly interrupted by the financial crisis, is behind concerns that the cost of intermediation services provided to the real economy may be excessive.

[17] In theory, the financial sector reaches optimal size when the cost of financial services equals the social benefits (including externalities, or spillover effects). But measurement is difficult and requires subjective choices.

[18] Between 1952 and 1984, the financial sector accounted for an average of 14.1% of pre-tax corporate profits. Since 1985, the average has been 24.3%. Federal Reserve, *Flow of Funds Accounts*, Table F.7.

A 2005 survey of the existing financial economics literature by Ross Levine found that most research agreed that a developed financial system improves a country's economic growth.[19] However, recent work by Jean Louis Arcand, Enrico Berkes, and Ugo Panizza finds that finance may actually have a negative impact on economic output when the financial system grows too large.[20] The authors note that when credit made available to the private sector reaches 110% of GDP, the financial sector can become a drag on economic growth. (The authors, like others who study this area, use credit to the private sector as a proxy for the size of the financial sector and of a country's financial development.) In 2006, the United States was one of eight countries that had credit to the private sector above the threshold identified by the researchers. The authors find that those countries above the 110% threshold suffered the most as a result of the most recent financial crisis.

Arcand et al. point to two possible mechanisms to explain how a large financial system could be a drag on economic growth. First, they cite work by Hyman Minsky[21] and Charles Kindleberger[22] that shows a relationship between a larger financial sector and macroeconomic volatility. Arcand et al. also point to a paper written by Raghuram Rajan prior to the financial crisis that highlights trends in the financial sector that had increased the probability of a catastrophic meltdown.[23]

Second, the authors state that a large financial sector may absorb talented individuals who could have a larger impact on economic growth if they worked in the nonfinancial sector. Decades before the financial crisis, Nobel Prize-winning economist James Tobin expressed similar concerns that "we are throwing more and more of our resources, including the cream of our youth, into financial activities remote from the production of goods and services, into activities that generate high private rewards disproportionate to their social productivity."[24] He noted, however, that this was a suspicion "perhaps unbecoming in an academic" (probably meaning that it could not be quantified), and that he had no "sovereign solution to propose."[25]

Compensation

There is no mystery about what attracts workers to financial services: certain occupations there are the highest-paid in the world. **Figure 2** shows aggregate trends in financial sector employment and compensation, relative to the economy as a whole. Between 1949 and the early 1980s, the shares of employment and compensation represented by the financial sector rose together. This meant that financial sector workers' pay grew at the same rate as that of other workers. Since 1980, however, financial sector employment has been flat (as a percentage of total

[19] Ross Levine, "Finance and Growth: Theory and Evidence," in *Handbook of Economic Growth*, ed. Philippe Aghion, Steven Durlauf (Amsterdam: Elsevier, 2005), vol. 1.

[20] Jean Louis Arcand, Enrico Berkes, and Ugo Panizza, "Too Much Finance?," Working Paper, March 2011, online at http://graduateinstitute.ch/webdav/site/iheid/shared/news/2011_04_27_news/toomuchfinance.pdf.

[21] Hyman P. Minsky, "The Modeling of Financial Instability: An Introduction," in: *Modelling and Simulation*, vol. 5, 1974 (Proceedings of the Fifth Annual Pittsburgh Conference, Instruments Society of America), pp. 267-272.

[22] Charles P. Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises* (New York, Basic Books, 1978).

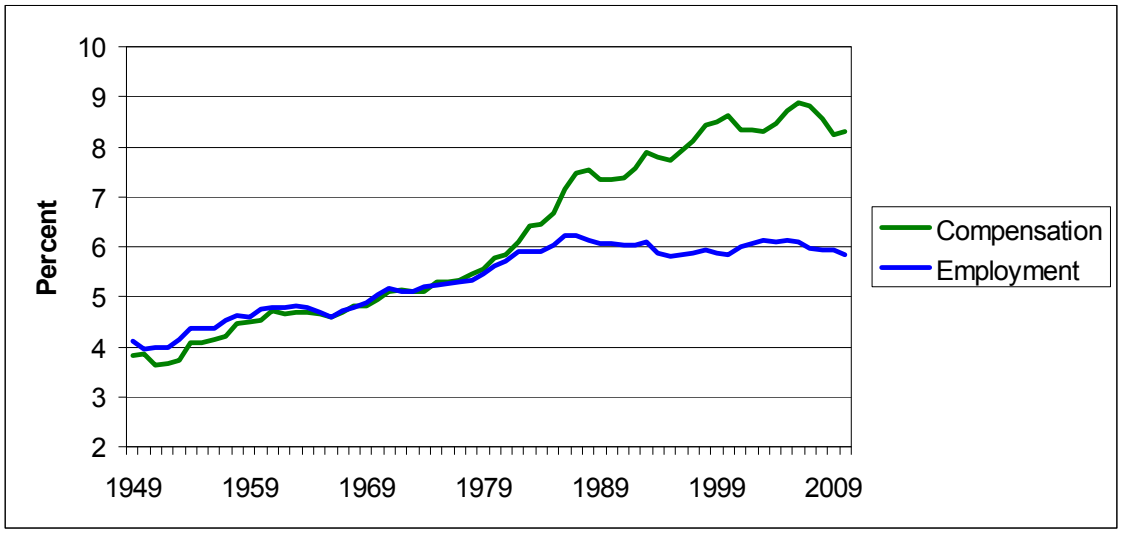
[23] Raghuram G. Rajan, "Has Financial Development Made the World Riskier?," in: *The Greenspan Era: Lessons for the Future* (Federal Reserve Bank of Kansas City, 2005), p. 318, online at http://www.kc.frb.org/publicat/sympos/2005/pdf/rajan2005.pdf. (Hereafter cited as "Rajan, Has Financial Development Made the World Riskier?")

[24] James Tobin, "On the Efficiency of the Financial System," *Lloyds Bank Review*, vol. 153 (July 1984), p. 14.

[25] Ibid.

nonfarm employment), but compensation has continued to rise. In other words, the share of compensation received by a constant proportion of the labor force has continued to grow—financial sector pay has risen relative to that of other workers.

Figure 2. Financial Sector Share of Total Nonfarm Employment and Employee Compensation, 1949-2010



Source: Bureau of Labor Statistics (employment) and Bureau of Economic Analysis (compensation).

Notes: Employment is for the BLS financial "super-sector" as a percentage of total non-farm employment; compensation compares pay in finance, insurance, and real estate to all employee compensation.

Controversy over financial sector pay, of course, does not usually focus on rank-and-file workers, but rather on the top earners. Much of the evidence is anecdotal:

- of the Forbes 400 wealthiest individuals, whose joint net worth exceeds $1.5 trillion, 96 made their fortunes from financial investments and another 27 in real estate;[26]
- the 2010 bonus pool for securities industry employees in New York City alone was $20.8 billion;[27] and
- in 2010, the top 25 hedge fund managers earned $22.7 billion.[28]

Analyzing the top end of the income distribution (the top 0.1%, 0.01%, 0.001%, and 0.0001%), Steven Kaplan and Joshua Rauh found that in 2004:

- "Wall Street individuals" (financial firm executives, investment bankers, and hedge fund, venture capital, and private equity managers) comprised a larger fraction of the very highest end of the adjusted gross income (AGI) distribution (the top 0.0001%) than nonfinancial CEOs and top executives;

[26] Luisa Kroll and Kerry Dolan, "The Forbes 400: The Richest People in America," *Forbes*, October 10, 2011, p. 220.

[27] New York Office of State Comptroller, "New York City Securities Industry Bonus Pool," February 23, 2011, online at http://osc.state.ny.us/press/releases/feb11/022311a.htm.

[28] Stephen Taub, "The Rich List," *AR*, vol. 2, April 2011, p. 32.

- nine times as many Wall Street individuals earned in excess of $100 million as public company CEOs—the top 25 hedge fund managers combined appear to have earned more than all 500 S&P CEOs combined; and
- there were twice as many Wall Street individuals as "Main Street individuals" (nonfinancial executives) in the top 0.5% and 0.1% of the AGI distribution.[29]

Income Inequality

A number of studies have shown that U.S. income gains over the past few decades have gone predominantly to the wealthiest. For example, a recent report by the Congressional Budget Office (CBO) finds that the inflation-adjusted after-tax incomes of the top 1% grew by 275% between 1979 and 2007, versus just under 40% growth for the middle 60% of the income distribution.[30]

The traditional economic view has been that income inequality produces incentives that spur economic growth.[31] Furthermore, many economists believe that redistributional policies to reduce inequality may lead to a loss in wealth.[32] In recent years, however, this consensus has come under challenge. In 2003, B.L. Chen posited an "inverted U-shaped" curve: income inequality produces gains in economic growth rates to a certain point, but when the degree of inequality passes that point, growth begins to slow.[33] More recent work has elaborated on (and questioned) this finding.[34] There is no new consensus, but economic research no longer stands squarely opposed to the proposition that increasing concentration of income and wealth in the top 1% might have negative macroeconomic consequences.

Less Stable Financial System

Another concern related to Wall Street pay is that it may create perverse incentives. Traders who are compensated through bonuses linked to annual performance may adopt risky strategies that produce high short-term returns but are likely to fail spectacularly under market conditions that appear only rarely. This argument was made in 2005 by Raghuram Rajan, then-chief economist of the International Monetary Fund, and has gained considerable acceptance since the crisis.[35]

Rajan argued that the transition away from traditional bank-centered financial intermediation to a system that relied more on the financial markets to allocate savings for investment had introduced a layer of management in which the incentives of managers may not have been aligned with the

[29] Steven Kaplan and Joshua Rauh, "Wall Street and Main Street: What Contributes to the Rise in the Highest Incomes?," NBER, Working Paper 13270, July 2007, online at http://www.nber.org/papers/w13270.pdf.

[30] Congressional Budget Office, *Trends in the Distribution of Household Income Between 1979 and 2007*, October 2011, p. ix., online at http://www.cbo.gov/doc.cfm?index=12485.

[31] Brendan Fisher and Jon D. Erickson, "Growth and Equity: Dismantling the Kaldor-Kuznets-Solow Consensus," in: Jon D. Erickson and John Gowdy, eds., *Frontiers in Ecological Economic Theory and Application* (Northampton, MA: Edward Elgar, 2007), pp. 53-71.

[32] Arthur M. Okun, *Equality and Efficiency, the Big Tradeoff* (Washington: The Brookings Institution,1975), 124 p.

[33] B.L. Chen, "An inverted-U relationship between inequality and long-run growth," *Economic Letters*, vol. 78, (February 2003), pp. 205-212.

[34] For a brief account of recent research on income inequality and patterns of growth, see Andrew G. Berg and Jonathan D. Ostry, "Equality and Efficiency," *Finance & Development*, vol. 48, no. 3 (September 2011), pp. 12-15.

[35] Rajan, "Has Financial Development Made the World Riskier?"

incentives of investors. Managers had the incentive to take risks that could be concealed from investors, so that investors believed they were receiving a high risk-adjusted return on their investment. These were "tail risks," which occur with a very small probability,[36] but have severe consequences when they do occur. By hiding risk in the form of tail risk, managers could give the appearance of high returns on investment, which boosted their compensation.

Equally problematic, managers had an incentive to engage in "herding," or following similar investment strategies as other investment managers. Managers are often evaluated based on how well they perform relative to their peers. By following the same investment strategy, managers can justify losses to their investors by showing that losses were not unique to them but would have occurred even if the investors had placed their money elsewhere. Rajan noted that the combination of hidden tail risk and herding (1) could feed the growth of asset bubbles, and (2) created the risk that disruptions following the occurrence of low-probability, high-impact losses might be system-wide.

Another possible source of systemic instability is the process of financial innovation, by which markets create ever more complex and difficult-to-value securities and derivative financial instruments. Nicola Gennaioli, Andrei Shleifer, and Roberty Vishny argue that when investors demand traditional securities and their price rises, financial intermediaries will create new securities that appear to replicate the returns of traditional securities. Investors purchase the new, relatively inexpensive instruments in large volumes until new information appears (such as, that house prices will not always increase) that reveals previously unrecognized risks in the new securities. Investors, who had purchased more of the securities than they would have had they understood the true risks, may then seek to dispose of the new securities at fire sale prices and return to traditional securities. Such a "rush for the exits," especially in the presence of high leverage, can result in system-wide panic.[37]

Costs of Financial Crises

Recent research by Carmen Reinhart and Kenneth Rogoff describes the cost that society bears when financial instability leads to a financial crisis. Studying the historical record in many countries, they find that recessions that follow financial crises are more severe, cause more economic damage, and are longer lasting than other recessions. Specifically,

- asset market price drops are deep and prolonged;
- there are profound declines in output and employment; and
- the level of government debt tends to rise sharply.[38]

They find that post-crisis increases in government debt are usually attributable to declines in government revenues, rather than policies (such as bailouts) to contain the crisis or to provide

[36] That is, in the tails of the probability distribution.

[37] Nicola Gennaioli, Andrei Shleifer, and Robert W. Vishny, "Financial Innovation and Financial Fragility," FEEM, Working Paper no. 114.2010, October 2010, online at http://ssrn.com/abstract=1688940. For a description of the asset sale "death spiral," see Markus K. Brunnenrmeier, "Deciphering the Liquidity and Credit Crunch, 2007-2008," *Journal of Economic Perspectives*, vol. 23, winter 2009, pp. 92-94.

[38] Carmen M. Reinhart and Kenneth S. Rogoff, *This Time Is Different: Eight Centuries of Financial Folly* (Princeton, NJ: Princeton University Press, 2009), p. 224.

countercyclical stimulus. In another paper, Rogoff and Reinhart find that when government debt rises above 90% of GDP, growth rates tend to experience significant declines.[39] (U.S. federal government debt outstanding is currently about 67% of GDP, while municipal securities issued by state and local governments represent about 16% of GDP.)[40]

Conclusion

Since the financial crisis of 2007-2009, innumerable popular books and articles have castigated Wall Street bankers and traders for their greed, ignorance, short-sightedness, arrogance, recklessness, and folly: *All the Devils Are Here* is a representative title.[41] The critiques in the presidential statements excerpted in this report are entirely in keeping with much of this post-crisis literature. For example, John Bogle, of the Vanguard mutual funds, echoes Thomas Jefferson's fear that financial "gambling" will cause citizens to withdraw from more worthwhile pursuits:

> The financial sector itself has been building for many decades into the largest single element of the American economy. We have moved to a world where far too many of us seemingly no longer make anything; we're merely trading pieces of paper, swapping stocks and bonds back and forth with one another, and paying our financial croupiers a veritable fortune.[42]

Experience of the crisis has shifted popular views of the financial sector and provides part of the impetus for anti-Wall Street demonstrations. As Congress performs its oversight role, one question is the extent to which the excesses that led to the crisis were a temporary episode, or whether they reveal flaws in the system beyond the proximate causes of the crisis. On this point, economic research is inconclusive.

The research summarized in this report may represent the beginning of a revaluation of the role of finance in the economy, but, in the words of Nobel Prize-winning Economist Robert Solow, "no blanket statement is possible."[43] Solow admits to a suspicion that trading strategies based on identifying tiny pricing anomalies in financial markets seconds before competitors can identify them do not add "anything much to the efficiency with which the real economy generates and improves our standard of living. If that suspicion is valid—I emphasize that the necessary calculations have not been made and will be hard to make—the conclusion would be that our poorly regulated financial system is not only dangerously unstable, but also too big and too complex, absorbing talent and resources that could be better used doing something else."

[39] Carmen M. Reinhart and Kenneth S. Rogoff, "Growth in a Time of Debt," NBER, Working Paper 15639, January 2010.

[40] Congressional Budget Office, *The Budget and Economic Outlook: An Update*, August 2011, p. 5, and Federal Reserve, *Flow of Funds Accounts*, Table L.105. Both figures are for the end of the second quarter of 2011.

[41] Bethany McLean and Joe Nocera, *All the Devils are Here: The Hidden History of the Financial Crisis* (New York: Portfolio/Penguin, 2010), 380 p.

[42] John C. Bogle, *Enough: True Measures of Money, Business, and Life*, Hoboken (NJ: John Wiley, 2009), p. 31.

[43] Robert M. Solow, "Hedging America," *New Republic*, January 12, 2010.

Author Contact Information

Mark Jickling
Specialist in Financial Economics
mjickling@crs.loc.gov, 7-7784

Sean M. Hoskins
Analyst in Financial Economics
shoskins@crs.loc.gov, 7-8958