Income Inequality and Financialization in the United States

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Introduction

If the Great Depression of the 1930s was a moment of failure for laissez faire capitalism, then the financial crisis of 2007-2009 was the manifestation of the dangers wrought by financialization. Just as the years leading up to the Great Depression were marked by prosperity that masked growing inequalities and structural flaws in the economy, so too were much of the 2000s characterized by a widening income gap concealed by credit-fueled growth. These years proved to be the culmination of a decades-long process of financialization, by which economic growth increasingly delivered itself in the form of financial activity and speculation. Coming at the expense of financialization has been the real economy, which prior to the financial collapse had become secondary to the financial sector. With millions of middle-class Americans employed in the real economy, and many of the wealthiest individuals employed by large investment firms in the financial sector, it is little surprise that financialization has contributed to an increase in income inequality. Whether or not the recent recession has helped to reverse financialization remains to be seen, but nonetheless, income inequality in contemporary America remains at the highest level in decades, and much of the blame rests on the sweeping changes financialization has brought to the structure of the U.S. economy. This paper attempts to determine the extent to which financialization has increased income inequality since the early 1980s, as well as comment on the state of financialization almost three years after the most recent financial crisis began.

Defining Financialization

At the most basic level, the term financialization denotes the growing size and importance of financial transactions as part of overall economic activity (Orhangazi, 2008). More

so, the term encompasses the greater reliance of nonfinancial corporations on the financial sector, both in terms of access to capital as well as investments made in financial assets and subsidiaries (Orhangazi, 2008). Another author has defined financialization as the accumulation of profits through financial means, such as interest, dividends, and capital gains as opposed to through trade and commodity production (Krippner, 2005). Still others have used the term to encompass a wider range of distinct, if somewhat related trends, such as the greater weight accorded to the financial sector, an increased emphasis of shareholder value, and rising household debt, among other things (Stockhammer, 2010). A synthesis of the various interpretations of financialization, therefore, would suggest that the term above all refers to the increase in financial activity and profits generated from such activities.

Although financialization has produced a broad range of developments at both the domestic and international level, this paper's main interest is in the increased prominence as well as profitability of the financial sector specifically in the United States since the early 1980s. It is these developments that have fundamentally reshaped the relationship between the "real" economy, in which production of goods and services is the main goal, and the financial sector, which has traditionally provided capital and funding for activity in the real economy. Quantifying the impact of financialization in the United States on income equality will serve as the basis for the econometric model presented later.

A Historical Overview of Financialization

Although many would agree that financialization began in earnest in the 1980s in the United States, its sources date back at least two decades earlier, when the threads underlying the so-called "Golden Age of Capitalism" first began to unravel. During this period, which

encompassed the 1950s and most of the 1960s, government regulation of the financial sector was both accepted and seen as a source of stability (Orhangazi, 2008). The experience of the Great Depression, after all, had revealed the dangers of a market without oversight. Regulation of the era included many of the reforms enacted during the 1930s, such as the Banking Acts of 1933 and 1935, the Glass-Steagall Act of 1933, and the Security and Exchange Act of 1934 (Orhangazi, 2008). These regulations, along with other passed in subsequent decades, called for a framework in which government regulation of financial activities was charged with preventing collapse by limiting risk and calling for transparency throughout the financial sector.

Perhaps one of the most symbolic signs of the times was the Treasury-Federal Reserve Accord of 1951, which balanced the inflationary concerns of the Federal Reserve with the employment goals of the federal government, particularly those of the Treasury. Prior to the accord, the Federal Reserve and Treasury had frequently found themselves in heated disagreement over the best course of macroeconomic policy. Passed during the Korean War, just six years after the end of World War II, the accord came at a time when inflation was once again becoming a threat to economic stability (*The 50th Anniversary of the Treasury-Federal Reserve Accord 1951-2001*, 2001). As important as the accord was in reaffirming the independence of the Federal Reserve and diffusing a standoff between fiscal and monetary policymakers, it created a secondary compromise as well. The interests of the U.S. manufacturing and financial sector were effectively balanced by virtue of the accord, for while the former was tolerant of higher inflation, financiers and banks would have much more to lose from the effects of inflation. The balancing of the goals of manufacturing and finance, however, would not last indefinitely.

If the 1950s and 1960s could truly be characterized as the Golden Age of Capitalism, in which economic growth was robust and the interests of the real and financial economy were

relatively balanced, then the challenges facing this prosperity were many by the late 1960s. Of these, the most salient was perhaps inflation, which fundamentally threatened the economic framework promised by the Treasury-Federal Reserve Accord. The inflationary pressures of the late 1960s, caused in large part by government spending for social programs as well as increased U.S. involvement of the Vietnam War, helped to undermine the low inflation environment banks had come to depend on. The decline in real interest rates hurt the profitability of many commercial banks, and the subsequent tightening of monetary policy led to a credit crunch that further undermined the health of the commercial banking sector (Orhangazi, 2008).

In response to these developments, banks began a number of innovations aimed at improving profitability. In most cases, these innovations found loopholes in the regulations of the time, or evaded them outright. For instance, the rise of non-bank and hybrid institutions throughout the 1960s and 1970s led to the growth of a financial industry that was not subject to regulation. Just as General Motors and Ford had established financial subsidies in previous decades, many nonfinancial corporations began doing the same during this period in response to changing economic conditions (Orhangazi, 2008). By blurring the line between investment and commercial banking and thus evading regulation, these new entities offered greater profitability at a time of uncertain returns, but increased the risk inherent in the financial sector and economy at large.

Coinciding with the inflation of the late 1960s and 1970s were new economic developments that increasingly challenged many nonfinancial firms in the United States. Perhaps most pressing was that the profit rate had begun to decline in the middle of the 1960s, and continued to do so in the 1970s. From 1965 to 1973, the profit rate in manufacturing fell by nearly 41% while that of the private business sector declined by 30% (Brenner, 2006). Brenner

notes that this decline has much to do with the downward pressure on prices that prevented producers from marking up their products to achieve previous rates of return. This pricing pressure was primarily the result of increased international competition facing U.S. firms, as epitomized by the entry of countries such as Germany and Japan into the global market. Brenner writes, "…[D]ue to such precipitous growth in world trade, new producers, without warning, began to supply radically increased fractions of the world market, supplanting long-ensconced incumbents" (p. 110). Falling profitability in the United States thus came with the emergence of increased competition abroad, which led to over-production and over-capacity for many domestic producers. Not surprisingly, this excess encouraged firms to increasingly focus less on production and more on investment in financial assets. Krippner (2005) notes, "Confronted with labor militancy at home and increased international competition abroad, non-financial firms responded to falling returns on investment by withdrawing capital from production and diverting it to financial markets" (p. 182). In many respects, this increasing movement of capital away from the real economy into the financial sector represented the beginning of financialization in the United States.

Even if not the initial cause of the declining profit rate, the energy crisis in the early 1970s exacerbated the plight of many U.S. firms by squeezing profits and creating a business climate of uncertainty. The profit rate for manufacturing firms, already in steep decline since the late 1960s, fell 25% from its low of 1973 during the oil crisis of 1974-1975 (Brenner, 2006). Although the oil crisis did produce significant wealth for oil producing countries at the expense many American firms, one unexpected side development took place that would further give rise to financialization. Flush with funds from the increased price of oil, producing countries began to put their so-called "petrodollars" in American and European Banks (Orhangazi, 2008). U.S.

banks not only found themselves with more funds with which to lend, but greater influence in opening up foreign markets to these funds, which could earn a greater return abroad then at home. The push for trade and capital flows liberalization that resulted became part of the Washington Consensus, and marked a new set of concerns abroad that shaped the growth of financial activity in the United States as well as abroad.

The experience of the 1970s, therefore, paved the way for a new series of priorities on the part of not only U.S. firms, who increasingly looked to financial markets for profits, but the government as well. Disillusioned by the failure of Keynesian measures to alleviate the economic crisis of the 1970s, some policymakers increasingly turned to monetarism, austerity, and deficit reduction. For the Federal Reserve in particular, anti-inflation became the new priority of monetary policy, and as interest rates rose in what became known as the "coup of 1979," financial profitability increased (Brenner, 2006; Orhangazi, 2008). Indeed, if the inflation of the 1970s had tipped the balance of power in the borrower's favor, then the tight monetary pursued by Federal Reserve Chairman Paul Volcker helped lenders reassert their power. Whereas the preservation of full employment had once been the primary goal of Federal Reserve policymakers, the higher interest rates that marked the late 1970s and early 1980s signaled an ostentatious shift to price stability, one that also increased financial profitability (Epstein, 2005).

U.S. monetary policy was not alone in promoting the rise of financialization in the early 1980s. Upon assuming office in 1981, Ronald Reagan sought to restore economic prosperity by removing the obstacles posed by labor, high taxes, and government regulations (Brenner, 2006). Efforts to reduce impediments to corporate growth in particular became the new priority, as evidenced by reductions in the capital gains tax and laxer federal policies concerning large mergers (Orhangazi, 2008; Epstein, 2005). Part of the government's motivation in implementing

these and other policies was that some of the problems that first marked the profitability crisis of the prior two decades remained in place in the 1980s. Alluding to the original issues of over-production and over-capacity, Brenner (2006) points out,"…[W]ith low returns on capital stock discouraging long-term placement of funds in new plant and equipment, money went increasingly to finance and speculation, as well as to luxury consumption, the way being paved an undisguised lurch in state policy in favor of the rich in general and financiers in particular" (p. 189).

By the 1980s, in other words, many of most visible signs of financialization were in place and increasingly an established part of the U.S. economy. Among these was the new position of institutional investors, who were the beneficiaries of the deregulation of securities markets, as well as new innovations such as clearing and settlement systems that drove down the costs of investing. Out of the developments that gave rise to this class of investors came a shift in power from corporate stakeholders to shareholders, which became epitomized in the shareholder revolts of the early 1980s (Orghanzai, 2008). New strategies of corporate governance, which attempted to solve the principle agent problem by aligning the goals of chief executives with those of the shareholders, further shifted the balance to holders of financial assets (Stockhammer, 2010). It is important to note, however, that although many of these developments might be associated with financial corporations, nonfinancial firms as well adopted strategies that maximized corporate profits through the use of incentives. Stock options, for instance, became one response of managers of nonfinancial firms hoping to appease financial markets (Epstein, 2005).

If the developments of 1980s marked the birth of financialization in the United States, then the decades leading up to the recession of the late 2000s saw the advance of financialization continue largely uninterrupted. The deregulatory initiatives of the 1990s, which culminated with

the repeal of the Glass-Steagall Act in 1999, enabled financial firms to realize ever greater profits with little prospect of regulation. Even the suggestion of regulation, as evidenced by the warnings of Brooksley Born, who spoke of the need to regulate the growing derivatives, was often met with strong criticism and skepticism (Schmitt, 2009). By the mid 2000s, the peak years of financialization by most measures, financial profits accounted for a little over 40% of total U.S. business profits, nearly twice the post-World War II average (Johnson, 2009). Although the recession that began in late 2007 has altered the landscape of the financial industry, it would be hasty to conclude that the economic downturn marked the end of financialization. The implications of the recession on financialization in the United States will be discussed in further detail at the end of this paper.

Literature Review

Although an understanding of the developments that led to financialization are informative, this paper's primary goal is to assess the extent to which financialization has contributed to growing income inequality in the United States. An overview of the literature reveals that although there has no been shortage of journal articles and studies discussing either rising income inequality or financialization as separate topics, only a few speak of both as coinciding trends that are explicitly linked. Even financialization and increasing income inequality are viewed as part of the same story, however, most of the literature lacks quantitative evidence, and virtually none have attempted to create an econometric model linking measures of financialization with income inequality.

Throughout most of the literature, there is consensus concerning the broad parameters of financialization, such as what it has entailed in general terms for the U.S. economy. Many look at

financialization as a decades-long process that began in earnest in the early 1980s and reached a peak right before the recession began in late 2007. For example, Richard Freeman (2010) speaks of financialization as a phenomenon that grew out of the Washington Consensus of the 1980s, which stressed the importance of deregulating capital markets as well as labor markets domestically and internationally. Despite some initial concerns, financial liberalization was heralded by many policymakers at the time as the key to growth, and the United States increasingly pursued neoliberal policies internationally alongside a domestic agenda of deregulation. Coinciding with the deregulation of financial markets was the drive to create more flexible labor markets through deregulation, which was believed to reduce unemployment. Freeman is keen to point out, though, that the financial meltdown in the fall of 2008 cost many jobs in the real economy. Not surprisingly, the high levels of unemployment that have ensued since late 2008 have contributed to increased income inequality.

Writing of a theme mentioned by several other authors, Freeman speaks to one of the most visible forms of income inequality: the rise of incomes at the very top. He cites the increased disparity between top and regular earners in the 2000s, saying that in recent years the American corporate executive has made roughly 300 times the earnings of normal workers. According to Freeman, the role of misreporting financial data has been vital to rising profits at the top, and despite the risk of doing so, reporting inaccurate data that is to the liking of financial markets is perceived by firms to be of net benefit. As evidenced by corporate scandals such as Enron, however, this behavior has produced larger losses than gains for the broader economy. Overall, Freeman suggests that the real economy has become the servant of the financial sector, and despite a recession that toppled a number of large financial firms, remains that way today.

In his 2005 work *Financialization and the Global Economy*, Gerald Epstein points to financialization taking root at a time when increased competition and stagnant economic growth had led to lower profits. With the acceleration of financialization after the middle of the 1980s, however, the profits of financial firms began to increase dramatically compared to their non-financial counterparts. In particular, a class of rentiers composed of large financial institutions or those who own financial assets has captured an increasing share of national income. Epstein writes, "Starting in the late 1970s, the advent of monetarism and then neoliberalism greatly helped the re-emergent financial or rentier class. They have benefited directly by virtue of the expansion of the markets that they operate in and the assets they hold." The primacy of the rentier class has further driven the agenda of financialization and neoliberalism, both of which have squeezed the profits of nonfinancial firms in which many Americans find employment. The result of such pressures on profits is that wages have increased more slowly for workers in these firms.

James Crotty (2005) underscores the importance of the so-called neoliberal paradox in understanding the economic developments associated with financialization in recent decades. Echoing one of the points made by Epstein, Crotty believes that nonfinancial firms have increasingly been pressured by large financial institutions to report ever-increasing earnings and to offer larger payouts to financial agents. At the same time, managerial priorities have changed to increasingly emphasize short-term profits and stock price movements at the expense of long-term success. Crotty also points out that nonfinancial corporations have made ever-larger payments as a percentage of their cash flow to financial markets. For most of the 1980s and for parts of the 1990s, these payments accounted for over 50% of the cash flow of nonfinancial corporations, with financial agents receiving a peak of 76% of cash flow in 1989. Crotty

concludes of this development, "It forces nonfinancial corporations to either cut investment and innovation or face rising indebtedness. And it sustains cost-cutting pressure and 'low-road' labor relations, which retard wage and employment growth and thus constrain the growth of aggregate demand."

Focusing on the detachment of increased productivity growth from wage growth in recent decades, Thomas Palley (2007) notes that since the early 1980s, productivity and wage compensation of non-supervisory workers have diverged dramatically. Whereas the productivity of these workers has increased significantly, compensation has remained stagnant for over 20 years. He cites multiple reasons for the stagnation of wages, including the erosion of unions and the real purchasing power of the minimum wage, the changes brought about by globalization, the growing demand for skilled as opposed to unskilled workers, and rising CEO pay. Of these supposedly incongruent trends, Palley asserts that only a few who have written about financialization have treated these many factors as being linked and part of the increasingly powerful agenda put forth by the financial sector. In short, Palley speaks to the multitude of challenges confronting workers as a result of neoliberalism and financialization, all of which serve to put downward pressure on wages. Not only have private sector workers seen the erosion of their wages due to downsizing and outsourcing while public sector workers have been the victims of a small government agenda, but the shift away from full employment as the main priority of macroeconomic policy has increased income inequality in recent decades.

In the 2008/2009 edition of the *State of Working America* series, Lawrence Mishel points to a host of demographic as well as economic trends in the last several decade that have contributed to growing income inequality. Among these is the emergence of the so-called education premium, which has resulted in a wider gap between the wages of relatively less

educated workers and those of the relatively more educated. Controlling for other characteristics of workers such as experience and race, Mishel estimates that the education premium grew from about 20% in 1979 to nearly 34% in 1989 and to 44% in 2007, a fact that would suggest the increasing disadvantage faced by those without a college degree. Although Mishel attributes this trend partly to the increase of employer demand for workers with greater skills and education, he points out that equally important is the large decline in wages for the non-college educated workforce. This decline might in turn be explained by a number of causes, including the shift of the United States economy to low-wage industries, the advent of deunionization, and the failure of Congress to maintain the purchasing power of the minimum wage. Though Mishel does not say it explicitly, these factors are in some respects closely linked, and stem at least partly from the decline of the manufacturing sector since the late 1960s.

Finally, Wally Seccombe (1999) has written of the impact of financialization in encouraging firms to follow the dictates of the financial market by shutting down unproductive branches, reducing payroll, and following a general policy of downsizing to maintain profitability. Developments in managerial priorities have increasingly made shareholder capitalism the norm among financial institutions, meaning that nonfinancial firms are pressured to make short-term decisions that increase profits, often at the expense of the average worker. When these firms make decisions that are not to the liking of financial markets, the stock price of that firm declines, and a CEO more willing to downsize will likely gain enough support to eventually replace the old one. According to Seccombe, these trends, coupled with the wave of aggressive mergers and acquisitions of the 1980s that targeted noncompliant firms, have put numerous people out of work. The result has been wage stagnation driven by a surplus of unemployed workers.

Tracing the Causes and Effects of Financialization

Before attempting to build an econometric model that will quantify the effects of financialization on income inequality, is important to summarize and delineate the aforementioned sequence of developments leading up to and occurring as a result of the advent of financialization. With few exceptions, these trends will be represented in the econometric model that is presented in the next section of the paper.

Much of the literature points to the fall in the profit rate in the late 1960s and early 1970s, which was the result of increased international competition in manufacturing, as the start of financialization (Brenner, 2006; Epstein, 2006; Orhangazi, 2008). This increase in competition not only led to lower profits, but to overcapacity, which marked the beginning of deindustrialization and downsizing in manufacturing. At the same time that the lower profit rate most noticeably led many nonfinancial firms to increasingly take part in financial markets in search of greater profitability, downsizing in manufacturing led to offshoring and over time, the erosion of union membership, which had drawn heavily from the manufacturing industry (Orhangazi, 2008). In short, due to the new sources of international competition facing U.S. firms starting in the late 1960s, the foundation for the growth of the financial sector was laid just as the decline in the manufacturing sector began.

Though income inequality was already on the rise as financialization took shape, the economic developments forged by the increasing size and importance of the financial sector further contributed to inequality. The increasing ease with which capital moved from one country to another, a result of growing financial sophistication and reduced capital controls, created even more international competition that aggravated the already serious problem of downsizing and offshoring among U.S. firms. However, financialization also gave rise to a new trend altogether;

as financial firms increasingly became powerful symbols and agents of the new economy, nonfinancial corporations relied evermore on the former for their livelihood. The result of this dependence of nonfinancial firms on the financial sector and market entailed a new corporate governance that stressed the alignment of shareholder and manager interests, which invariably led to a focus on short-term profits (Orhangazi, 2008; Stockhammer, 2010). This focus gave firms an incentive to cut labor costs, while rewarding top executives who made such decisions, which were often in line with the short-term demands and outlook of financial markets (Orhangazi, 2008; Seccombe, 1999). The result, unsurprisingly, has been further income inequality in the form of stagnant wages and unemployment for workers and significantly higher pay for top corporate officers.

Looking more closely at the higher range of the income spectrum, many indications point to an increasing share of income going to the so-called rentier class, which denotes those who own financial firms or otherwise benefit from greater financial profits or returns on financial assets. Epstein (2005) notes that the increase in the inflation-adjusted rentier share of gross national income from an average of about 7% before 1975 to well over 20% during the 1980s and 1990s can be attributed to a variety of factors all linked to financialization (p. 62). First and perhaps most significant, the higher real interest rate that has supported the interests of lenders was a product of new priorities of the Federal Reserve in the late 1970s, as discussed earlier. Other factors include financial liberalization and fewer capital controls, both of which have pushed interest rates higher globally and allowed for greater financial activity, as well as fiscal austerity measures that have decreased government spending and thus reduced inflationary pressures (Epstein, 2005, p. 62). These trends, which have taken place at the same time that the

wages of many ordinary workers remained stagnant or declined in real terms, have thus further contributed to growing income inequality (Dunhaupt, 2010).

Both before and during the rise of financialization in the 1980s, in other words, there has been a downward pressure on the wages of many workers that has helped to contribute to greater income inequality. Many of these trends have not only often coincided with each other, both chronologically and in origin, but have exacerbated one another. Although quantifying these separate trends for the econometric model is generally straightforward, isolating their effects is more difficult, and the correlation between these complementary trends will present one challenge for the model.

Introduction to Model and Data Sources

In order to determine the impact of financialization on income inequality in the United States, this paper tests an econometric model that uses U.S. inequality as measured by the Gini coefficient for households as the dependent variable. This measure, collected by the U.S. Census Bureau since 1967, offers a broad gauge of inequality as opposed to other logical but ultimately more narrow measures of inequality, such as the ratio of CEO compensation to the average worker (which, when tested as a dependent variable, offered a weaker regression than did the Gini coefficient).

The explanatory variables include a measure for representing the growth of financialization in recent decades, as well as other variables meant to capture the effects of secondary developments not necessarily related to financialization that have promoted greater income inequality. The variable designed specifically to capture the effects of financialization on income inequality is the percentage of value added to GDP by the so-called FIRE sector, which

includes, finance, insurance, and real estate, as listed on the Bureau of Economic Analysis NAICS tables. The strength of this variable is that it captures the increased prominence of the U.S. financial sector, whose growth has come at the expense of the real economy and wages for many ordinary workers. Other measures of financialization, such as financial industry profits relative to total profits, were initially considered for inclusion in the model but proved too volatile and prone to business cycle fluctuations.

The remaining explanatory variables aim to quantify the effect of other historical developments in the United States that have led to greater income inequality but that are not direct measures of financialization. The first of these is the unionization rate among wage and salary workers in the U.S. workforce reported on the State of Working America website; as discussed earlier, the erosion of union strength since the late 1960s has put downward pressure on wages, especially in those industries in which collective bargaining might help to maintain or even improve the real value of wages.

Another explanatory variable for the model is the percent of women in the U.S. workforce, also from the State of Working America website. The greater rate of female labor participation has supposedly put downward pressure on wages, as the pay gap between women and men been significant even during the last several decades of the 20th century. It is important to note that women may have also begun entering the workforce in larger numbers as real incomes stagnated and having two salaries became essential. If this is truly the case, then this variable may present an issue of two-way causation.

Intuitively, the decline in the real value of the minimum wage starting in the early1980s would play a role in any explanation income inequality, and is also included as an independent variable. Measured in constant 2010 dollars as reported by the State of Working America

website, this variable captures the trend of a minimum wage that has lost significant purchasing power since 1968, when the hourly minimum wage was $8.68. For the working poor and others in low-wage industries, the failure of the minimum wage to keep pace with inflation has contributed to lower real incomes, further separating those at the lower end of the income distribution from those at the top.

In an effort to control for productivity, this model includes an explanatory variable that measures the average contribution to annual GDP of each non-supervisory worker's labor hour, as calculated using data from the Bureau of Labor Statistics website. One theme of the literature presented above is the detachment of productivity from real wage growth in recent decades; although worker productivity has grown significantly during the last three decades of the 20th century, real wages have not grown commensurately. The inclusion of this variable allows the model to determine the quantitative effect of other variables on income inequality while controlling for productivity growth.

The final explanatory variable in this model is the percent of those 25 or older who has obtained at least a college degree as reported by the U.S. Census Bureau. As noted by Mishel (2009) in the literature review, the growth of the college education populated has led to a wage premium for those with a college degree. Initially, this fact would appear to be a source of greater income inequality. However, the greater demand for college educated workers has also induced greater enrollment levels, helping those with at least a college degree to earn more. Trends in higher education, therefore, have helped to balance the income distribution.

With these six explanatory variables, the multiple regression model to be tested can be written as follows:

$$\mathbf{Gini(y) = Unionization(x_1)+FIRE(x_2)+Female(x_3)+MinWage(x_4)+Productivity(x_5)+College(x_6)+C}$$

Results

The initial regression results, as shown below, suggest an overall strong correlation between income inequality and the independent variables described previously. The explanatory variables explain a little over 97% of the variation in income inequality since 1967, and all but two of these six variables are at the 10% level of lower. With the exception of unionization rate, whose p-value indicates that it is insignificant to the model, all the signs of the variables are as expected. Most importantly, the measure of financialization in this model, the percentage value of GDP added by the finance, insurance, and real estate industries is significant below the 5% level, suggesting that even when controlling for other historical factors that have contributed to increased income inequality, financialization is part of the explanation.

Regression Statistics	
Multiple R	0.986059875
R Square	0.972314077
Adjusted R Square	0.967699757
Standard Error	0.005109302
Observations	43

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	6	0.0330045	0.005501	210.7166343	1.64562E-26
Residual	36	0.000939779	2.61E-05		
Total	42	0.033944279			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*
Intercept	0.18901868	0.094202155	2.006522	0.052357076	-0.002032144
Unionization Rate	0.072658661	0.18247231	0.39819	0.692841828	-0.297412334
Value Added to GDP by FIRE	0.54962693	0.236235369	2.326607	0.025729713	0.0705194
Women as Labor Force	0.31925724	0.109387855	2.91858	0.006027663	0.09740839
Real Value Minimum Wage	-0.000729761	0.002390324	-0.3053	0.761897383	-0.005577563
Productivity	2.23196E-05	4.13563E-06	5.396903	4.44764E-06	1.39322E-05
College Completion Rate	-0.678134816	0.166172153	-4.08092	0.000237904	-1.015147559

These first results, however, need to be corrected using the Cochran-Orcutt estimation, as the nature of the data as a time series presents a problem of autocorrelation. Indeed, the Durbin-

Watson statistic from the initial regression results was 1.05, suggesting a potentially serious issue of autocorrelation.

Using the Cochran-Orcutt estimation to correct for autocorrelation, and removing the unionization variable, which was insignificant and contained the wrong sign, yielded the following results:

Regression Statistics				
R Square	0.8865			
Adjusted R Square	0.8708			
Observations	42			
ANOVA				
	df	*SS*	*MS*	*F*
Regression	5	0.004887277	0.000977455	56.25
Residual	36	0.000625614	0.000017378	
Total	41	0.033944279		
	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	0.280325	0.0431273	6.5	0
Value Added to GDP by FIRE	0.4269135	0.2203401	1.94	0.061
Women as Labor Force	0.1727779	0.0918489	1.88	0.068
Real Value Minimum Wage	-0.0032268	0.0020631	-1.56	0.127
Productivity	0.0000133	5.10E-06	2.61	0.013
College Completion Rate	-0.2852684	0.2132719	-1.34	0.189

Although this refined model has a somewhat lower R square value than the initial model, the new Durbin Watson statistic is 1.74, suggesting that autocorrelation has effectively been corrected. Compared to the previous model, the explanatory variables in the correction version are all individually slightly less significant, though all are now significant below the 20%. Equally important, the signs on each variable are intuitively correct, with positive coefficient representing explanatory variables that are positively related with income inequality, and those with negative signs indicating an inverse relationship with income inequality. The results of this second econometric model suggests that financialization is in fact a significant contributor to

income inequality, though it is not the only explanation for increased income dispersion since 1967. Indeed, seemingly innocuous demographic trends such as the increased entry of women into the labor force have also led to increased inequality, while factors such as an increased real value of the minimum wage have diminished such inequality.

One challenge of the model tested in this paper is the degree of multicollinearity between each of the variables. Even though the model's independent variables were designed to capture distinct phenomenon, many of these trends have taken place alongside one another and have surely contributed to each other. For instance, the strong inverse collinearity between the percentage of value added to GDP by FIRE industries and the real value of the minimum wage (see collinearity chart below) might be explained by changing political priorities of the U.S. as financialization has progressed; the rapid growth of the financial sector promoted the interests of stockholders beginning in the early 1980s, from which pressure to either stabilize or outright cut labor costs has been significant. Similar explanations can be found for the strong collinearity between the other explanatory variables, underscoring the fact that the advent of financialization has coincided with several important long-term trends, some of which preceded it, and others that were an effect of financialization.

Collinearity Chart	FIRE	% Women in Workforce	Real Value of Min. Wage	Productivity	College Completion Rate
FIRE	1				
% Women in Workforce	0.937383534	1			
Real Value of Min. Wage	-0.827044768	-0.844226396	1		
Productivity	0.970045458	0.88051236	-0.765186749	1	
College Completion Rate	0.98258444	0.947619283	-0.807581532	0.980646313	1

The Great Recession: The End of Financialization?

Having witnessed the near collapse of the U.S. financial sector in late 2008, many have since argued that the structural changes brought about by financialization contributed at least in part to the Great Recession of 2007-2009. With the financial industry representing such a disproportionate share of economic activity, it is little surprise that when large financial firms began experiencing large losses due to the housing bubble, the fear of risk spread quickly. Nonfinancial corporations, having become so interconnected with financial investments and firms, were naturally unspared in many cases from the effects of the fallout. What began as a strictly financial crisis, in other words, was able to become an economy wide recession because of the U.S. financial sector's immensity. It is beyond the scope of this paper to discuss the extent of the blame that should be given to financialization, but it is perhaps enough to say that income inequality, already on the rise prior to the recession, has only edged up further in 2008 and 2009.

A more uncertain issue, however, is the state of financialization at the present time, almost two years from when the recession officially ended. After all, if the years leading up to the Great Recession marked the height of financialization in the United States, then an obvious question becomes to what extent the recent financial crisis reversed these trends. Unfortunately, the question is still a difficult one to address, as much of what has been written in recent years still concerns the causes of the recession. Only a few authors have speculated as to the shape of the financial sector in the near future and the longer term.

Perhaps the one thing that can be said, however, is that despite the near demise of the United States financial industry in late 2008 and early 2009, the largest financial firms that exist today have largely weathered the crisis. As early as March 2009, three months before the recession officially ended, large banks such as Citigroup posted quarterly profits. Many others

have since returned to profitability, having received significant assistance from the government during the worst days of the recession. Although the ability of these firms to largely avoid the consequences of excessive risk taking presents its own problems, one of the even more alarming trends following the recession has been the concentration of financial activity among the largest surviving financial firms. Somewhat ironically, the desperate actions taken by policymakers during the crisis to save failing firms such as Bear Sterns and Merrill Lynch has helped to consolidate the financial industry around even fewer large institutions. Perhaps even more disheartening is that the safety net established by the government during the recession has only expanded, sending the message to these firms that they truly are too big too fail (Hoenig, 2011). In a speech to the Women in Housing and Finance, Thomas Hoenig, the president of the Kansas City Federal Reserve, noted that in the post-recession world, the incentives to take risks have not changed. He says, "It is no coincidence that two principal features of the crisis were heavily bloated safety nets and major financial institutions that were treated as being too big to fail…This expansion in safety nets then sets the stage for the next crisis by providing even greater incentives for risk taking and further expanding moral hazard problems." (p. 3-4). It would seem that in some respects, the experience of the economic crisis has proven to financial firms that they can expand without fear. Whether or not financial regulation such as that passed in the Dodd-Frank Act will effectively help prevent excessive concentration and risk taking in the future remains to be seen. In any case, however, the attempt to shift to a more regulatory framework does suggest that if financialization as witnessed prior to the recession were ever to resume, it would have to take a very different form. In lieu of realizing large profits through risk taking and the reliance on opaque, unregulated markets, financial firms in the future would have

to contend with at least some form of government oversight, helping to moderate the excesses of the type of financialization practiced before the financial collapse.

Conclusion

The financialization of the American economy since the early 1980s has proven to be a development as important as any other in economic history. Indeed, the rise of financialization beginning in the early 1980s could be said to have marked a new phase following the end of the Keynesian paradigm in the 1970s. The experience of the tumultuous late 1960s and 1970s helped to produce a generation of policymakers skeptical of the principles underlying the so-called Golden Age of Capitalism, in which government regulation and oversight served to prevent the most harmful excesses of the economy. Equally important, the decline in the profit rate among many manufacturing firms starting in the late 1960s led to the increased movement of capital into financial investments, producing an economy increasingly reliant on financial firms and markets for its livelihood. Believing that financial innovation would lead to ever greater profits, and that unregulated markets would diminish costs for businesses, many policymakers failed to scrutinize the new economic activity of the 1980s and 1990s. Financialization would continue unabated for many years, halted only by the recession of the late 2000s that it had helped to produce. The channels through which financialization contributed to growing income inequality were several. Above all, it forged a new political economy in which large nonfinancial and financial firms alike, beholden to ever growing markets and shareholder demands, were pressured to downsize or otherwise cut labor costs. At the same time, financialization promoted the interests of a new rentier class, whose incomes grew rapidly with the rise of the interest rate in the early 1980s, as well as through the subsequent growth of large financial firms. With these

two trends accelerating as financialization progressed in the late 20th century and early 21st century, income equality in the United States unsurprisingly reached unprecedented levels by the late 2000s. Although the severe recession of recent years has only further contributed to income inequality by putting millions out of work, it has also led to a new regulatory framework that acknowledges the dangers of unrestrained financialization. In this sense, there is reason to believe that despite the all-too-quick reemergence of large financial firms in the post-recession world, growth in the financial sector will be forced to take a more cautionary approach in future decades, helping to reconcile the importance of the real economy with that of the financial sector.

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