Rising Corporate Concentration, Declining Trade Union Power, and the Growing Income Gap: American Prosperity in Historical Perspective

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Contents

Executive Summary

The rise of income inequality amidst the deceleration of GDP growth must rank as two of the most perplexing and challenging problems in contemporary American capitalism. Comparing 1935–80 with 1980–2013—that is, the Keynesian-inspired welfare regime and, later, neoliberal globalization—the average annual rate of GDP growth was more than halved and income inequality went from a postwar low in 1976 to a postwar high in 2012. How do we account for this double-sided phenomenon?

The conventional explanations of secular stagnation and elevated inequality are inadequate, largely because mainstream ("neoclassical") economics rejects the notion that the amassment and exercise of institutional power play a role in the normal functioning of markets and business. This analytical inadequacy has left important causal elements outside the purview of researchers, policymakers, and the public at large.

This two-part analysis investigates some of the causes and consequences of income inequality and secular stagnation in the United States. Using analytical tools from early American institutionalism and Post Keynesianism, I find that two explanatory variables—institutional power and distributive conflict—play critical causal roles in the shifting patterns of American economic growth and income inequality beginning in the late 19th century and continuing up to the present day.

In this context, "institutional power" takes two key forms: corporate power, which is a commodified form of power; and trade union, or "countervailing," power. (The sovereign power of the United States government is not the focus of this analysis.) "Corporate power" may be defined as large firms operating in oligopolistic market structures, while "trade union power" is the capacity of workers to act in concert through a labor union.

The key finding is that the commodified power of large firms depresses economic growth and exacerbates income inequality while the countervailing power of organized labor mitigates inequality and produces significant inflationary pressure. This analysis presents new estimates of US merger activity (1895–2013), corporate concentration (1950–2013), and the earnings margins and fixed asset investment of the 100 largest American-listed firms (1950–2013).

The analysis begins with an investigation of the commodified power of large firms and finds that mergers and acquisitions (M&A) lead to the centralization of corporate ownership manifested in asset concentration. The period between 1990 and 2013 was witness to the most sustained period of merger activity in American corporate history and, as a result, asset concentration more than doubled, rising from 9 percent to 21 percent. There are roughly 5.7 million registered corporations in the United States,

but the 100 largest firms account for one-fifth of total assets, which is a very high degree of concentration. Increased concentration is also shown to reduce competitive pressure, increase earnings margins (i.e., market power), and inflate the national income share of large firms.

Because investment in fixed assets is a key driver of GDP growth, the diversion of corporate resources away from industrial expansion in favor of M&A puts downward pressure on growth and leaves more corporate income in the hands of large firms. With the rise of stock options in the 1980s, executives were given an institutional incentive to divert income into share price–inflating stock repurchase, which increases the earnings of executives and exacerbates personal income inequality.

In the decades between 1950 and the 1970s, investment by the 100 largest firms more than doubled, rising from 6 percent to 13 percent of revenue, only to trend downward in the decades after 1980. This suggests that large firms may be leading the stagnation tendencies of recent times through fixed asset underinvestment. Stock repurchase was nearly nonexistent in the 1970s but grew in significance in each subsequent decade, rising from less than 1 percent of revenue in the 1970s to 7 percent in 2007.

Another first in American corporate history was seen in 2005, when the 100 largest firms spent more money in stock buybacks (inflating their stock price) than on fixed asset investment (replenishing their industrial base). Large firms have also been on a buying spree in recent decades, plowing enormous resources into acquisitions. Thus, the creation of a top-heavy corporate distribution simultaneously puts downward pressure on growth while elevating inequality.

The second part of the analysis documents the interplay between the countervailing power of organized labor, inflation, and income inequality from the late 19th century up to the present day. Mainstream economics insists that “market forces” distribute income in accordance with productivity, but this assertion is rooted in deeply problematic assumptions, concepts, and measurements. Historically, unions have played a crucial role in redistributing factor income from capital to labor (profit to wages) and from the upper to the lower strata of the personal income hierarchy.

The growth of American labor unions in tandem with the exercise of the strike weapon, especially from the 1930s to the 1970s, helped create an inclusive prosperity, or “middle class.” The erosion of unions since the mid-1950s and the pacification of the American workforce since the 1970s has coincided with wage stagnation, a shrinking national wage bill, and heightened income inequality.

Post Keynesian theory views inflation as the product of the excessive claims made by different groups over national income. It is in this context that inflation may validly be understood as a power process insofar as it is nourished on social conflict and is closely associated with the redistribution of

income between different income groups. Over the past century, US inflation has tended to redistribute income from capital to labor and from the upper to the lower strata of the personal income hierarchy. If this set of claims is true, then anti-inflationary monetary policy must not only be understood as a political phenomenon; it must also be viewed as the use of state power to regressively redistribute income.

Acknowledgments

The author would like to thank Joseph A. Francis for sharing his data files on the *Historical Statistics of the United States* and for forwarding a copy of Simon Kuznets's estimates on American business investment. Scott Aquanno helped clarify my understanding of heterodox economic thinking on inflation and monetary policy, while Jim Stanford's feedback was instrumental in refining the argument.

List of Figures

Part I: Corporate Concentration, Secular Stagnation, and the Growing Income Gap

> *The modern corporation has wrought such a change in the free market system that new concepts must be forged and a new picture of economic relationships created.*
>
> —Gardiner C. Means (1983)

Commentary on contemporary economic affairs, notably the deep stagnation and soaring inequality that plagues many advanced industrial societies, leaves the impression that there are important causal elements that remain out of focus. High-resolution explanations of American income inequality such as technological change, globalization, and executive compensation practices are necessary and valuable, but what seems to be missing from the debate are the low-resolution, but panoramically wider, factors behind economic growth and the distribution of its benefits.[1] Conspicuously absent from the discussion is recognition that growth and inequality are shaped, in part, by institutional power.

Conventional economic thinking treats power as something that resides outside the normal functioning of markets and business. Power is a political category, says the mainstream economist, not an economic category.[2] The commitment by mainstream economists to ignore power wasn't always the case, especially in the United States. In *The Modern Corporation and Private Property*, for example, Adolf Berle and Gardiner Means (1968 [1932]) argued that the emergence of the modern corporation ushered in a revolution sufficiently transformative that it simultaneously altered the system of private ownership and rendered neoclassical economic doctrine obsolete. For Berle and Means, the concentration of corporate assets—power, in other words—altered the theory and practice of American capitalism.

In what follows I explore the deep history of American GDP growth and income inequality, and find that both are shaped to a remarkable extent by the institutional power of large firms. For the purposes of this study, "corporate power" will refer to large firms operating in oligopolistic market structures. Large firms have two broad growth pathways open to them: build new industrial capacity or

[1] These three theses have tended to dominate the debate. The first explanatory scheme focuses on technological change and the resulting alteration in demand for certain types of labor. The skill-biased technological change (SBTC) thesis, as it is known, suggests that technological change increases the demand for high skilled workers and depresses the demand for low skilled workers, thus explaining heightened wage inequality (a position endorsed by Moore and Ranjan [2005] and contested by Card and DiNardo [2002]). Others identify globalization as the culprit behind American inequality (Krugman 2008). Heightened international trade, particularly the import of manufactured goods by developed societies from developing societies, alters the wage distribution in rich societies. As developed countries import more labor-intensive manufactured goods from low-wage countries, downward pressure is exerted on the wages of less educated and/or lower skilled workers, thus elevating inequality. A third candidate explanation centers on executive compensation practices. Gabaix and Landier (2008) argue that surging executive compensation closely tracks firm size, and because pay is linked to performance, the growth of the former is explained by the growth of the latter.

[2] This problematization of power for the study of economics was brought to my attention by Nitzan and Bichler (2009).

purchase it in the market for corporate control (Nitzan and Bichler 2009). Fixed asset investment (the former process) accelerates GDP growth and disperses corporate ownership, while mergers and acquisitions (the latter process) depresses growth and concentrates corporate ownership. The concentration of corporate assets leads to the centralization of national income in the hands of large firms, some of which gets paid to capitalists in the form of dividends and some of which is used to repurchase stock, thus inflating executive compensation. Dividend payments and executive compensation are two key determinants of American income inequality. In the United States, then, the processes that fuel the growth of corporate power put downward pressure on GDP growth and exacerbate income inequality.

This argument is presented in five sections. The second section explores the history of American mergers and acquisitions (M&A) to determine if there is any relationship between corporate amalgamation and power. The key finding is that the quarter century since 1990 has seen an unprecedented surge in M&A activity, and because corporate concentration is driven by amalgamation, asset concentration has soared to a postwar high. The third section disaggregates American business investment and finds that heightened M&A activity is associated with fixed asset underinvestment and, consequently, slower GDP growth. The fourth section explores the relationship between corporate concentration and income inequality and finds a strong, albeit indirect, relationship between the two. The fifth section concludes by summarizing the key findings, namely that a relative increase in the size of large firms has depressed growth and intensified inequality. A detailed explanation of the data sources and estimation techniques is to be found in the Appendix.

A Brief History of Mergers and Acquisitions

The acquisition of corporate organizations through M&A is a form of market exchange, but it is unlike other markets in a few crucial respects. First, we normally think of a commodity as something produced for sale on a market (Polanyi 2001 [1944]), but corporate organizations are not produced in the conventional sense of the term, nor are there established marketplaces for them to be exchanged—at least not in the ordinary sense of the term "marketplace." Second, commodities are typically acquired for one of two purposes: either as inputs in a production process or for direct consumption. A corporate organization does not fit either purpose. Third, and finally, the acquisition of a corporate organization has an unusual property insofar as it has the potential to eliminate markets as a basis for exchange. In other words, corporate amalgamation is a form of market-destroying market exchange. These aspects of corporate amalgamation create puzzling questions. Why do business owners engage in this type of

market exchange? And what are some of the long-term consequences of corporate amalgamation for the American political economy?

The narrative around the development of M&A from the late 19th to the early 21st century is one of a series of "waves," each leading to different organizational forms and market structures (McCarthy 2013; Jo and Henry 2015). The first US merger wave began after the depression of 1883 and lasted until 1904. The major form that M&A took was "horizontal," meaning that firms combined with competitors in their own industries to form monopolistic market structures. US Steel, for example, was formed when J.P. Morgan conjoined Carnegie Steel with his Federal Steel. By the end of the first merger wave, US Steel controlled nearly one-half of the US steel industry, having combined 785 separate steel-making units. Morgan wanted to dislodge "aggressive competitor managers" and replace them with an "orderly market" (Gaughan 2007). In practice, this meant restraining price competition, which would produce a more proprietor-friendly distribution of income.

The second US merger wave lasted from 1916 to 1929 and was christened the "oligopoly wave" by Nobel laureate George Stigler (1950) because vertical mergers—combinations in the same sector amongst firms that stand in a buyer-seller relationship—predominated. It is thought that the US Congress's passage of the Clayton Antitrust Act of 1914, which made it more difficult to merge for the purpose of creating a monopoly, was one reason why firms chose to expand outside their industries (Gaughan 2007). The third US merger wave lasted from 1965 to 1969 and was baptized the "conglomerate wave" because large firms diversified their holdings by acquiring firms in unrelated sectors. A fourth merger wave lasted from 1984 to 1989, the twin attributes of which were the prevalence of megamergers and the role of hostile takeovers. In the conglomerate wave of the 1960s, large firms swallowed small- and medium-size firms in unrelated sectors. The merger wave of the 1980s saw large firms absorb other large firms, such that the number of $100 million dollar US mergers increased 23 times from 1974 to 1986.

A fifth merger wave began in the 1990s that was international in scope. Whereas most merger activity in prior waves had been concentrated in the US, the fifth wave saw intensive takeover activity in Britain, Germany, France, Asia, and Central and South America. In addition to being international in scope, the merger wave of the 1990s was fueled, in part, by a global privatization push driven by the widespread adoption of neoliberal doctrine following the Cold War. Another feature of the fifth wave was the emergence of a developing country–domiciled acquirer, whose size was usually a consequence of the privatization of state assets (Gaughan 2007).

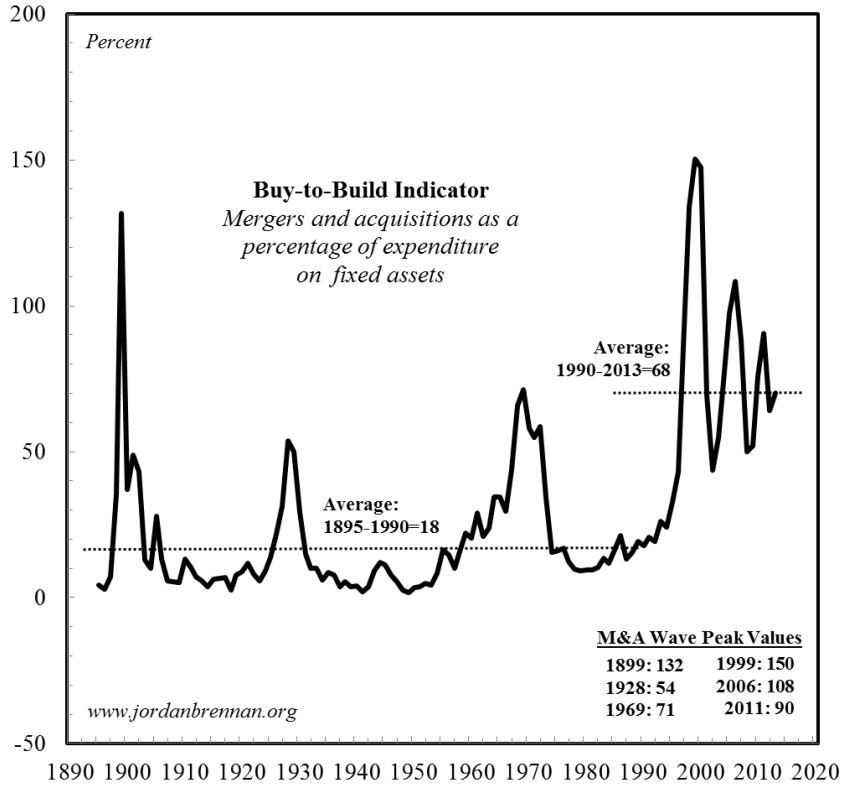
At a minimum, explanations for M&A activity usually try to account for two things: merger motives (*causes*) and postmerger outcomes (*effects*). Growth and efficiency (the latter often described as operating or financial "synergies") are two of the most common motivations cited for M&A activity (Gaughan 2007). But from a heterodox perspective, larger relative firm size and the attendant market power that greater size bestows is the real amalgamation prize. One way of measuring M&A is to contrast it with investment in fixed assets. A "buy-to-build" indicator captures the basic calculus open to proprietors: purchase existing industrial capacity on the market for corporate control or pay to have it built anew. Fixed asset investment leads to the creation of new industrial structures and is historically associated with net new employment and more rapid GDP growth. Mergers and acquisitions, on the other hand, merely shuffles ownership claims between proprietors while leaving the industrial base unchanged. Corporate amalgamation may lead to a net reduction in employment, as the newly minted organization sheds some duplicated functions and leaves productive capacity idle.

The evolution of American M&A activity is captured in the buy-to-build indicator plotted in Figure 1. Three things command our attention. First, the series clearly demonstrates the wave-like pattern of M&A over the past century. The peaks of major merger waves correspond with business cycle peaks and are observable on the chart. The second feature to note is the increasing importance of M&A relative to investment in fixed assets, especially in recent decades. Between 1895 and 1990, for every dollar spent on building new industrial capacity, American businesses spent an average of just 18 cents on M&A. In the quarter century since the so-called "free trade" era began, average M&A increased to an average of 68 percent of fixed asset investment—a near fourfold increase over the previous century. The third thing to notice is the sustained nature of M&A activity in recent decades. Of the six peak merger wave values since 1895, three have occurred in the past 15 years. Even though 1999 represents the historical high, the period since 1990 has been unprecedented in American corporate history.[3]

Some questions follow: How have the merger waves of recent decades altered American business investment? What bearing does amalgamation have on the structure of the American corporate sector? And, if amalgamation is a form of corporate restructuring, are there consequences for GDP growth and the distribution of income?

[3] Similar results are to be found for Canada in Brennan (2014; 2015).

Figure 1
American Corporate Amalgamation, 1895-2013

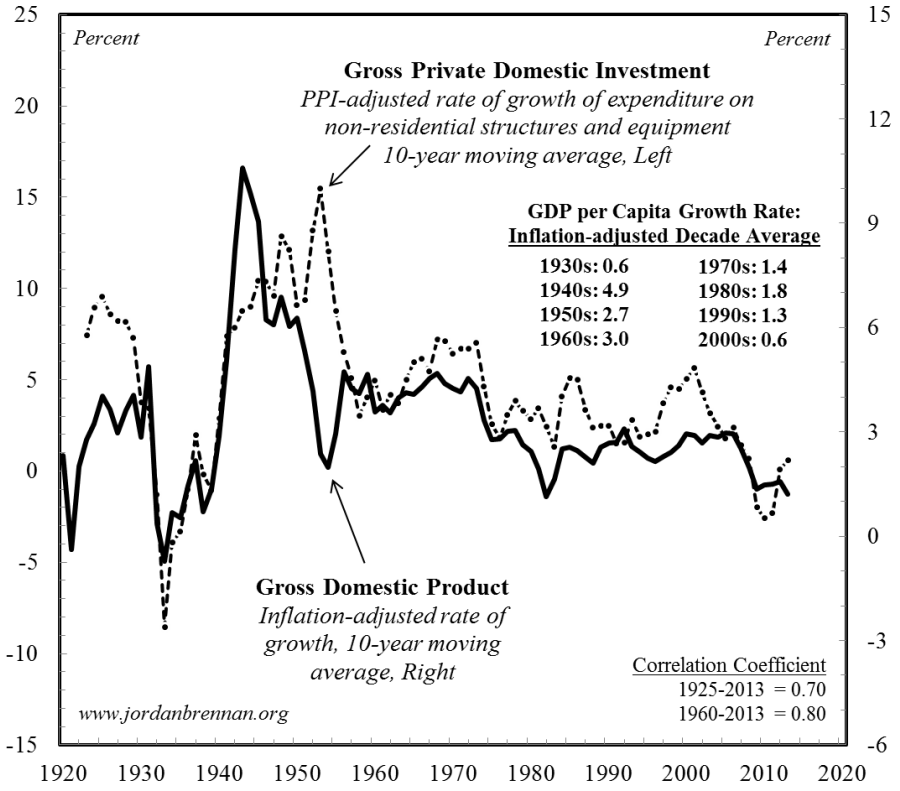


Investment and Growth

Since the publication of Adam Smith's *Wealth of Nations* in 1776, mainstream economists have told a story of development that puts the capitalist at the center of economic progress. By converting savings into investment and by submitting to the discipline of intense price and product competition, capitalists help set the economic wheels in motion and ensure the efficient use of socioeconomic resources. Part of this story is investment in industrial capacity, which is a key determinant of GDP growth. The conceptual and statistical relationship between fixed asset investment and GDP is well established (De Long and Summers 1992; Dougherty and Jorgenson 1997; Jorgenson 2007). Figure 2 maps that relationship by plotting the rate of growth of business investment in nonresidential structures and equipment and GDP, both adjusted for inflation and smoothed as 10-year moving averages to capture the cyclically adjusted ("secular") trend. The relationship between these two variables over the past century is very strong—a correlation of 0.70 between 1925 and 2013, rising to 0.80 over the past half century—which suggests that business investment in fixed assets is in fact a key determinant of growth.[4]

[4] All correlation coefficients are Pearsonian and are significant at 1 percent (two-tailed).

Figure 2
Secular Rates of Growth: Investment and GDP, 1920-2013

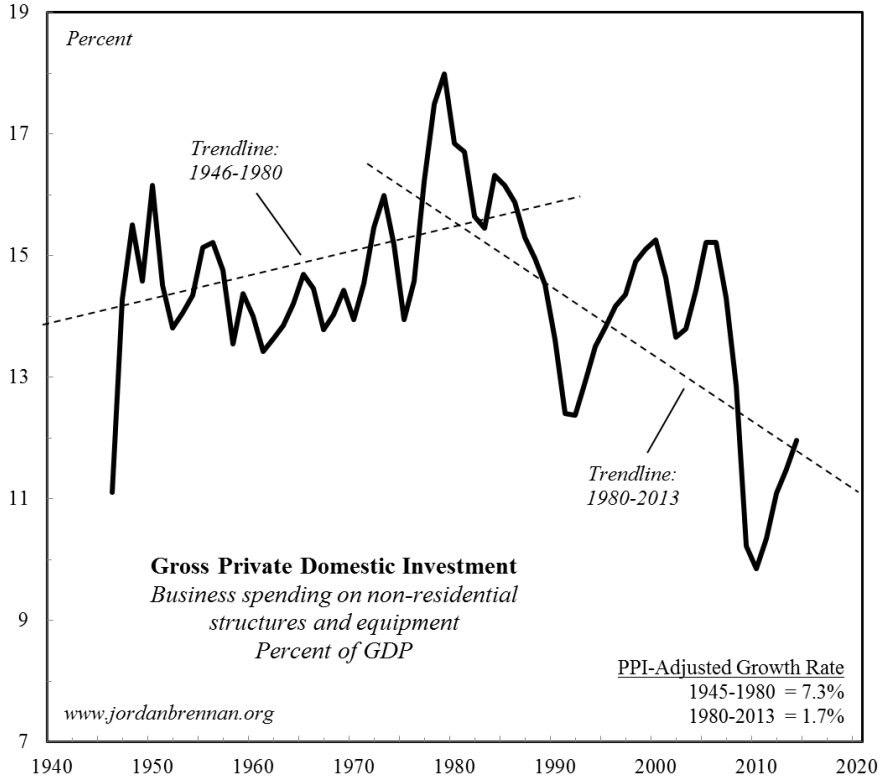


In the early decades of the postwar era, the US (and other Organisation for Economic Co-operation and Development [OECD] countries) experienced heavy fixed asset investment and rapid growth. In the decades since 1980 there has been a shift to under-investment and comparatively sluggish growth. Inset within Figure 2 are the decade average rates of GDP growth adjusted for inflation *and* population. Using this metric, American GDP growth averaged 2.8 percent between 1940 and 1980 and was more than halved between 1980 and 2013, falling to just 1.3 percent. Thus, the lower levels of growth in recent decades appear to be led by under-investment in fixed assets.

Figure 3 crystallizes the evolution of American investment in industrial capacity over the postwar period by plotting the proportion of business spending on nonresidential structures and equipment in GDP. The chart clearly shows that in the early postwar decades (1946–80) fixed asset investment was comparatively high and trended upward. In the decades since 1980, the American business sector invested comparatively less in fixed assets and the trend was sharply downward. Fixed asset investment peaked at 18 percent of GDP in 1979 and by 2010 it reached a postwar low of just 10 percent. The difference between the average inflation-adjusted rate of growth of spending on fixed assets is even

starker: between 1945 and 1980 the growth rate averaged 7.3 percent, and it fell to just 1.7 percent between 1980 and 2013.

Figure 3
Business Investment in Industrial Capacity, 1946-2014

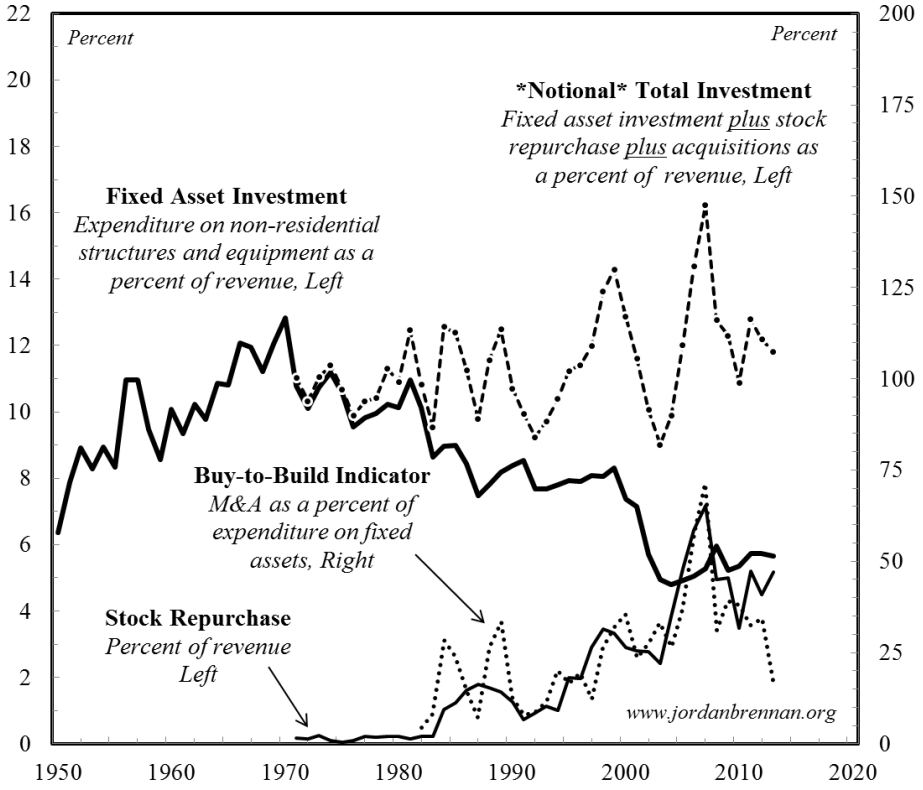


Given that investment fuels growth, how has investment by the *largest* American-listed firms evolved in recent decades? Figure 4 decomposes investment among the top 100 American-listed firms over the postwar era by plotting investment in fixed assets and stock repurchase (both as a percent of revenue), a buy-to-build indicator for the top 100 firms, and a metric capturing "notional" total investment, the last measured as fixed asset investment plus acquisitions and stock repurchase all as a percent of revenue. The notional investment series indicates the different ways that firms can deploy available assets for the sake of growth. What do the facts tell us?

In the two decades between 1950 and 1970, fixed asset investment trended upward, rising from 6 percent to 13 percent of revenue, only to trend downward in the decades after 1970, falling to a postwar low of 5 percent over the past decade. This suggests that large firms may be leading the stagnation tendencies of recent times through fixed asset under-investment. Stock repurchase was nearly nonexistent in the 1970s, but has grown in significance in each subsequent decade, rising from

less than 1 percent of revenue in the 1970s to 7 percent in 2007.[5] To be clear, this means that for the first time in American corporate history, large firms spent more money repurchasing their own stock than on the expansion of their industrial base. Large firms have also been on a buying spree in recent decades, plowing enormous resources into acquisitions.

Figure 4
Top 100 Firms: Investment Decomposition, 1950-2013



The notional total investment series clearly shows that if large firms had spent all their acquisition and stock repurchase resources on fixed asset investment, the downward trend in fixed asset investment would have actually been an investment boom. Actual fixed asset investment peaked in 1970 at 13 percent of revenue, but notional total investment peaked in 2007 at 16 percent of revenue, which was considerably higher than the business sector as a whole (which was 14 percent of GDP in that year). Given that investment in machinery and equipment is a key driver of GDP growth, the enormous resource redirection within large firms from fixed asset investment toward M&A and stock repurchase

[5] As Jo and Henry (2015) explain, it was only with the adoption of Rule 10b-18 in 1982 that the SEC formally permitted share buybacks (up to 25 percent of the stock's average daily trading volume).

put tremendous downward pressure on American growth. Why would large firms redirect resources away from industrial expansion in favor of acquisitions?

Corporate Amalgamation, Corporate Concentration, and the Distribution of Income

By capturing the overall position of large firms in the corporate universe, many heterodox economists have utilized aggregate concentration as a broad proxy for corporate power. In the language of neoclassical economics, "perfect competition" is a condition in which a large number of buyers and sellers, perfect information, free entry and exit, and homogenous products prevail. Under this market structure, sellers do not have the ability to influence price. But as firms combine and the market structure moves from the competitive end of the spectrum to the oligopolistic end, large firms go from being price takers to price shapers and price makers. John Blair (1972), for example, argues that as aggregate concentration increases, market behaviour changes. "Communities of interest" form around powerful families and financial groups and this enables them to coordinate their activities to a greater extent than would otherwise be possible. Independent (read: competitive) behavior is lessened, Blair continues, as dominant proprietors and executives openly or tacitly agree that firms should avoid the disruptions associated with "price competition" and aim, instead, at a healthy "target profit rate."

Mancur Olson (1982) explains some of the mechanics (and impediments) that individuals and institutions face in organizing for collective action through the building of coalitions:

> The larger the number of individuals or firms that would benefit from a collective good, the smaller the share of the gains from action in the group interest that will accrue to the individual or firm that undertakes the action.… The incentive for group action diminishes as group size increases, so that large groups are less able to act in their common interest than small ones. (Olson 1982, p. 31)

The numeric scale of groups like (nonunionized) workers, taxpayers, and consumers makes it difficult to organize for collective action. The incentives, Olson explains, are not strong enough to pull such groups together. One reason for this is that the services provided by such coalitions are often distributed to every member of the coalition equally, and among broad coalitions, this makes the "per unit" benefit small. What's more, the cost of organizing such coalitions may be large, which acts as an additional impediment to collective action.

The opposite logic is at play with small groups like large firms operating in oligopolistic markets. In the context of the coordinating activities between large firms—activities that would include setting market prices, containing the rate of industrial expansion, or lobbying—because they are few in number, the organizational burden is much smaller. What's more, such firms stand to disproportionately benefit from collective action. Smaller groups, Olson asserts, possess disproportionate organizational power or "cartelistic power per capita." It is imperative to note that the activities of such coalitions will tend to benefit coalition members, even though said activities may reduce total societal efficiency or hamper the growth of aggregate income. These negative effects arising from coalitional behavior will be felt more strongly by non-coalition members (i.e., by society at large).

Figure 5
Amalgamation and Concentration, 1940-2013

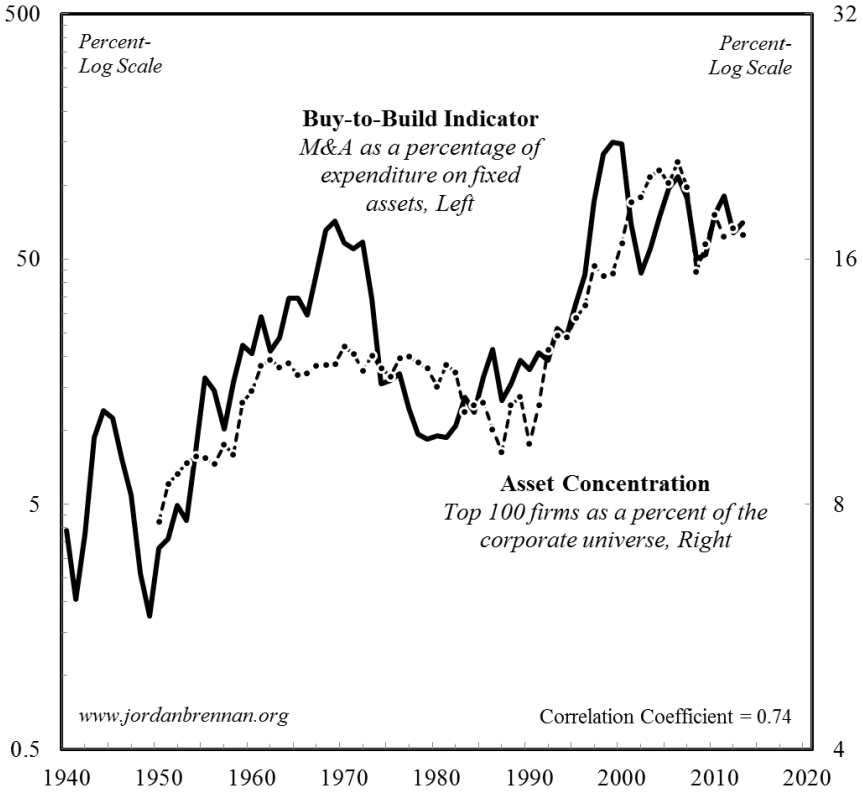
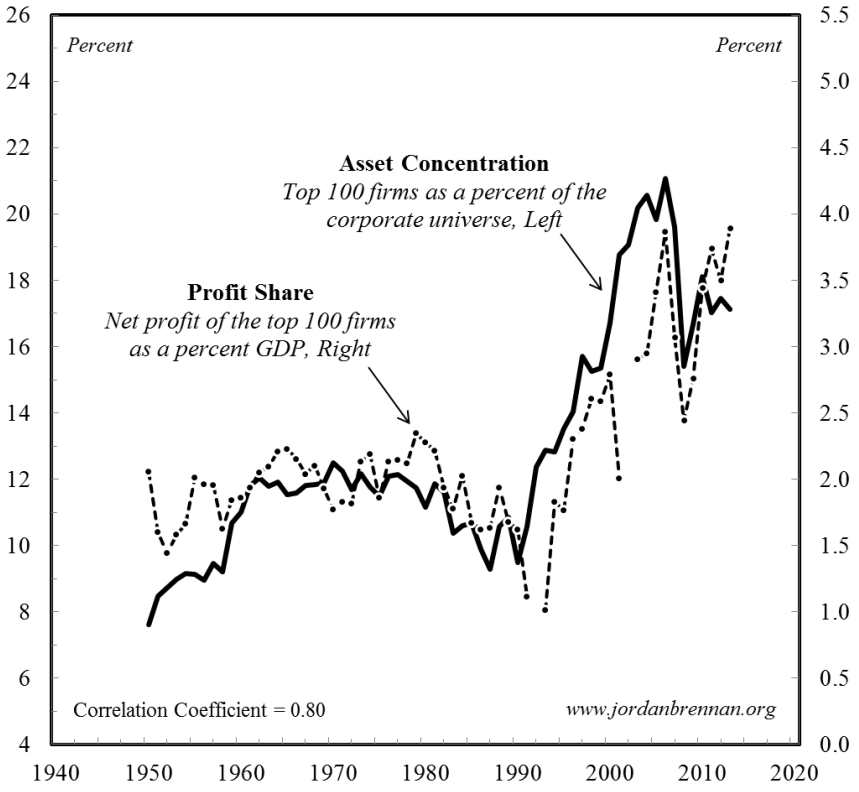


Figure 5 contrasts the (national) buy-to-build indicator with aggregate asset concentration, the latter measured as the total assets of the top 100 American-listed firms as a percent of the corporate assets. The two series are tightly and positively intertwined over six decades, which signals that amalgamation waves tend to concentrate assets. In tandem with the conglomerate merger wave, asset concentration increased by one-half between 1950 and 1970, rising from 8 percent to 12 percent of

corporate assets. With the subsiding of merger activity between 1970 and 1990, asset concentration fell by one-quarter. Then, with the onset of the most sustained period of merger activity in American corporate history, asset concentration more than doubled, rising from 9 percent in 1990 to 21 percent in 2006. There are roughly 5.7 million registered corporations in the United States (according to the US Census Bureau), but the 100 largest account for roughly one-fifth of total assets, which is a very high degree of concentration.

If, as Thorstein Veblen (1908a, 1908b) posited, capital is a claim on earnings—legal title to an income stream—it should follow that the concentration of corporate assets should be associated with the redistribution of income. Figure 6 contrasts aggregate asset concentration with the income share of the top 100 American-listed firms, the latter measured as the percent of net profit in GDP (with outlying values removed in 1992 and 2002). The two series are tightly correlated over six decades. The income share of the top 100 firms is stable over the early postwar decades, having averaged 1.9 percent of GDP between 1950 and 1990. The elevated merger activity of recent decades and the associated concentration of assets coincided with a doubling of the income share of the largest firms, which reached a postwar high of 3.9 percent of GDP in 2013.

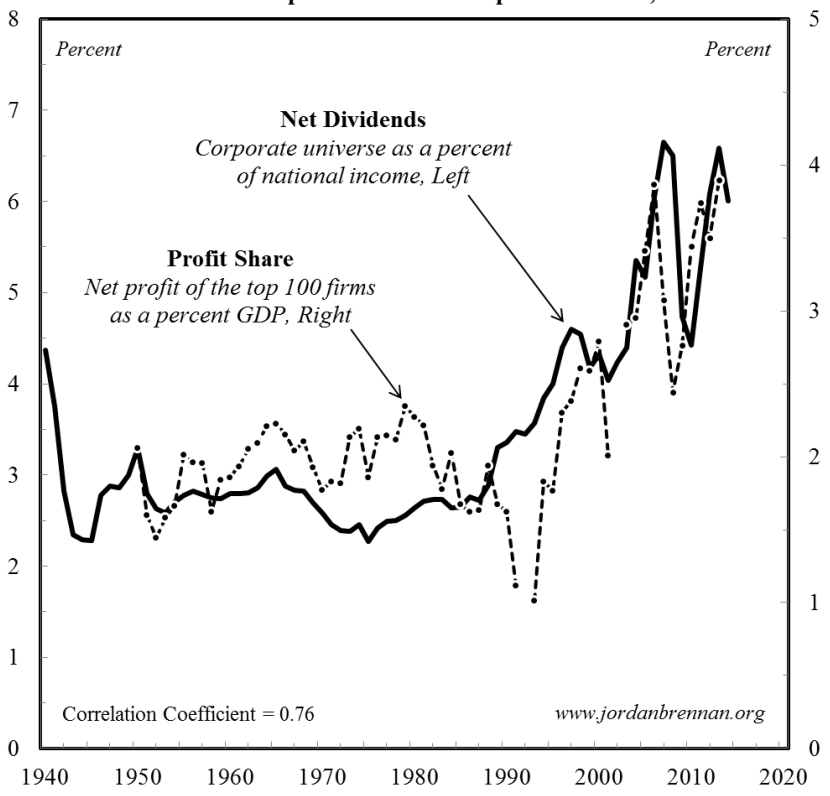
Figure 6
Concentration and Profit Share, 1950-2013



For institutional power to be a meaningful category in political economy, it must include control over—*redistribution of*—income. The facts in Figures 5 and 6 are significant because they suggest that the structure of the corporate sector, which is fueled by corporate amalgamation, concentrates assets and centralizes income. Insofar as the distribution of income reflects the organizational structure of the political economy, power becomes a meaningful heuristic. Is there a relationship between the centralization of national income in the hands of the largest firms and income inequality?

Yes, but the relationship is indirect. Figure 7 contrasts the profit share of the top 100 American-listed firms with the net dividends paid by the American corporate universe (as a percent of national income). The correlation over six decades is 0.76, or high. Despite the cyclicality, the level of each series remained relatively stable in the early decades of the postwar era. Both metrics began to climb in the 1980s and soared in the past two decades. Of the 5.7 million registered American corporations, 98 percent have less than 100 employees and 90 percent have fewer than 20 employees. This implies that the overwhelming majority of US firms are small and medium size, and are unlikely to pay dividends. It is predominantly large firms with complex ownership structures that pay dividends.

Figure 7
Profit Share of the Top 100 Firms and Capitalist Income, 1940-2014



Based on calculations from the author's data archives, in the late 1980s fully half of American corporate dividends were paid by the largest 100 firms. In more recent years, roughly one-quarter of total dividends were accounted for by the largest 100 firms. This likely why the dividend share of national income moves in tandem with the profit share of largest American-based firms, because it is primarily large firms that pay dividends. The relationship in Figure 7 suggests that as the corporate universe concentrates and large firms claim a greater share of national income through enhanced market power, the potential to distribute that profit to owners of (large) corporations, via dividends, increases. Logically and empirically, then, a larger profit share of national income, which is driven by the amalgamation-fueled concentration of corporate assets, leads to an enlarged capitalist income share.

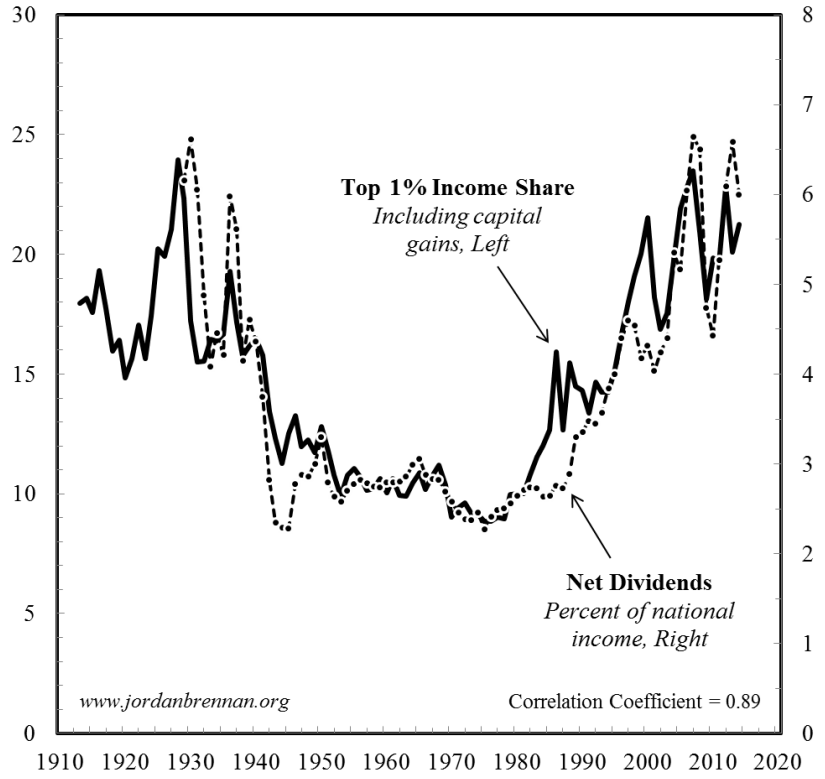
Capitalist income is often defined as the sum of interest and profit payments. In mainstream economic thinking, the abstinence endured by the owners of corporate debt is rewarded with fixed interest payments while the risk taken by the owners of corporate equity is rewarded with profit. From a personal income standpoint, however, capitalist income is dividends. Defined in classical terms, a capitalist is an employer of waged labor. The profit earned by a firm has four possible uses: the financing of expansion through some form of investment, retained earnings (often in the form of cash), stock repurchase, and dividend payments. In the final analysis, even though profit and interest are the sum total of "capitalist income," from a personal income perspective capitalist income is solely dividends. Given this, is there a relationship between capitalist income and American income inequality?

Figure 8 plots the long-term relationship between the income share of the richest 1 percent of Americans—a proxy for overall income inequality—and the dividend share of national income. The two series are near mirror images on each other, registering a correlation of 0.89 over the past century. Dividend payments plummeted during the Great Depression and again during the Second World War, having reached a historic low of 2.3 percent of national income in 1945. Dividends hovered around that level till the late 1980s, after which they began to soar, pulling the richest Americans' income share up with them. Notably, the dividend share of national income reached a historic high of 6.6 percent in 1930 and in 2007, which is roughly the same moments in time that American income inequality peaked.

The implication is that American income inequality is driven, in part, by dividend payments. However, because dividend payments are at least partially restricted by corporate profitability, the relationship between corporate power and income inequality remains unclear. Elsewhere (Brennan 2014) I have mapped the American corporate profit share of national income from the 1920s onward. I found that it collapsed during the Great Depression (1929–32) before soaring to 13.6 percent in 1942.

For the next half century the corporate profit share trended downward, having reached a postwar low of 8.3 percent in 1990. Over the past quarter century the profit share trended sharply upward, having reached an all-time high of 14.5 percent in 2013. What does all of this mean?

Figure 8
Capitalist Income and American Income Inequality, 1913-2014



Source: Fix (2015)

In broad strokes, the profit share of national income sets the boundaries within which capitalist income (understood as dividend payments) is determined, and it appears that capitalist income shapes the overall level of American income inequality. The combined effect of the Great Depression and Second World War was a halving of American income inequality (as registered in the top percentile income share). The Great Depression witnessed the dual collapse of corporate profitability and the top income share. However, profits recovered faster than wages in the 1930s, which meant that the profit share of national income and the top income share rebounded in the decade after 1933. The top income share collapsed again during the Second World War, but not because of a collapse in profitability; instead, the dividend share of profit was reduced by three-quarters—thus reducing capitalist income—in favor of the heavy fixed asset investment associated with wartime mobilization.

In the early postwar decades, income inequality continued to decline. This was not because of a shift in dividend payments, however, which held steady at one-fifth of corporate profit. Instead, the profit share of national income itself was nearly halved in the four decades between 1940 and 1980. So income inequality in the early postwar decades was a story of declining relative corporate profitability, at least in part. Income inequality began to increase in the early 1980s, even though the profit share of national income did not significantly rise. The explanation seems to be a doubling of the dividend share of profit, which rose from one-fifth in the late 1970s to two-fifths by 1990. After 1990, the profit share of national income and the dividend share of profit both rose sharply. At the time of the Great Recession in 2008–09, the profit share of national income had reached a postwar high of 13.7 percent and the dividend share of profit had reached a postwar high of three-fifths.

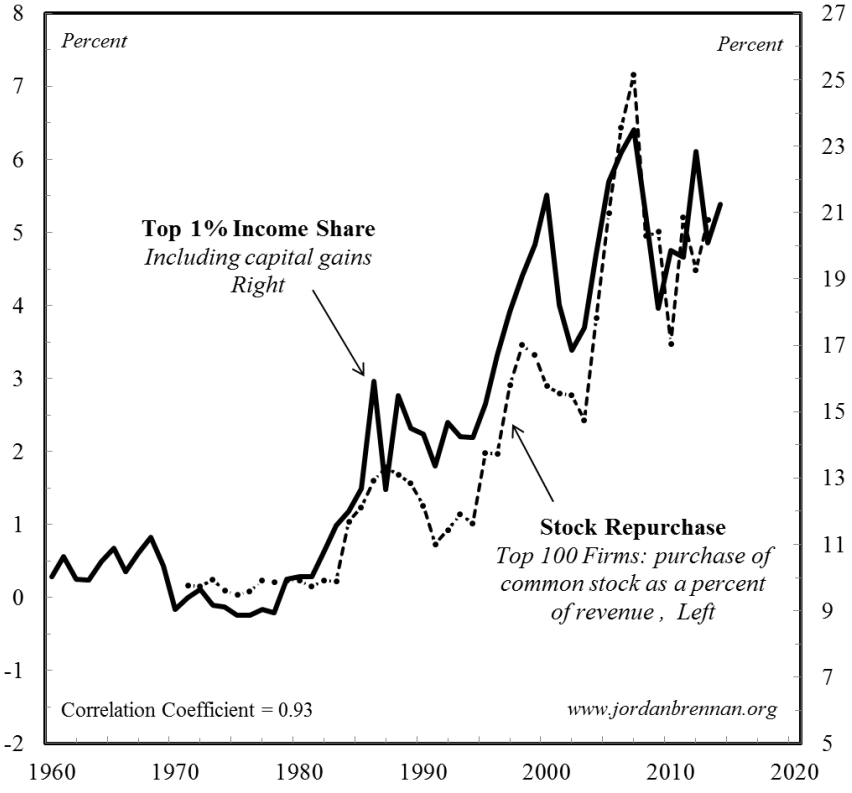
So it is the combined effect of surging corporate profit and a higher dividend share of profit distributed to capitalists that has been driving American income inequality in recent decades. The higher dividend share of corporate profit implies that there are fewer resources available for fixed asset investment. So the processes that restrict investment and GDP growth are also the processes that inflate the top income share and exacerbate personal income inequality.

Even though dividend payments appear to the prime candidate in explaining American income inequality, it has been long understood that executive compensation practices also play a role in American income inequality. While many executives have compensation packages that include shares in the firms they manage, we often distinguish the capitalist class (i.e., the owners of corporate equity who employ workers) from the managerial class (i.e., those who are employed by the firm to run day-to-day operations). How does executive compensation fit into the American income inequality picture?

Central to Berle and Means's 1932 "separation thesis" was the positing of a three-pronged process: an increasing concentration of corporate assets, coupled with an increasing dispersion of stock ownership, resulting in a separation of ownership from control. Putting aside the validity of the claim that control had actually delinked from ownership, the idea exerted considerable influence on economic theorists and policymakers. If the large corporation was no longer under proprietary control (having fallen under managerial control), the incentive structure would no longer compel those exercising corporate authority to steer the firm in a profit-maximizing direction, thus threatening the equilibrium-seeking nature of laissez-faire capitalism (or so mainstream economists reasoned). Managers might instead steer the firm in a direction that enriched themselves while sacrificing the interests of stockholders, who were too numerous and dispersed to challenge managerial authority.

The rise of stock options in the 1980s and their explosion in the 1990s may be thought of as one institutional response to the alleged separation of ownership from control (Frydman and Jenter 2010; Murphy 2012). By compensating managers with stock, their interests and attendant behavior would presumably realign with those of stockholders, thus transcending the separation thesis and ensuring firms behave in a profit-maximizing manner (again, according to mainstream assumptions). Murphy (2012) tells us that in the 10 years after 1992, median CEO compensation for firms listed on the S&P 500 more than tripled, fueled in large part by stock compensation. Even though this is just one aspect of the so-called "shareholder revolution," it has clearly led to important changes in the governance of large firms.

Figure 9
Stock Price Inflation and American Income Inequality, 1960-2013



What is the relationship between stock compensation, which has been driving trends in CEO pay in recent decades, and personal income inequality? Figure 9 plots the value of stock repurchase (relative to revenue) among the top 100 American-listed firms with the income share of the top percentile income group. The two series are tightly synchronized and have a correlation coefficient of 0.93 between 1971 and 2013. This suggests that, in conjunction with heightened dividend payments, the redirection of corporate income away from fixed asset investment toward stock repurchase has not only slowed

growth but also exacerbated inequality. There is clearly more to American income inequality than stock options, but insofar as top income earners drive inequality trends, and insofar as corporate executives make up a substantial proportion of the top income group, the evolution of executive compensation plays a key role in determining the overall level of American inequality.

Summation: Corporate Concentration Is a Missing Element in the Inequality Puzzle

Recent decades have seen the most sustained M&A activity in American corporate history. For every dollar spent on expanding America's industrial base, 68 cents was spent redistributing corporate ownership claims between proprietors. As a parallel phenomenon, the average rate of GDP growth in the three plus decades after 1980 was halved in comparison with the four prior decades. And because fixed asset investment is an expansionary activity that is associated with job creation, the restructuring of American investment in favor of M&A has likely been a significant factor in the decelerating rate of GDP growth.

When we disaggregate the corporate sector, focusing on the largest 100 firms, we find that the level of fixed asset investment increased in each successive decade between 1950 and 1980 and decreased in each decade since 1980. As a proportion of revenue, fixed asset investment in the period since 2000 was less than half of what it was in the 1960s and 1970s. And while the largest American-listed firms have spent comparatively less on the expansion of industrial capacity, they have plowed enormous resources into the acquisition of other firms (via M&A) and on inflating their share price via stock repurchase. For the first time in American corporate history, it appears that large firms are spending more resources purchasing their own stock than on the expansion of their industrial base. Significantly, when we combine fixed asset investment with acquisitions and stock repurchase (thus arriving at "notional' total investment), we discover that instead of fixed asset underinvestment there has been an investment boom, albeit one cloaked in M&A and share buybacks.

The motivation to divert resources away from fixed asset investment in favor of M&A appears to be the concentration of corporate assets and resulting increase in market power. Elsewhere (Brennan 2012) I have documented a strong and persistent relationship between corporate concentration and the earnings margins, profit, and cash flow of large Canadian-based firms. By merging, large firms not only to absorb their rival's income, they reduce competitive pressure, which elevates earnings margins. So the causal pathway runs from amalgamation through concentration toward enhanced market power and profitability.

This set of relationships is present in the United States. Over the long haul, mergers and acquisitions centralize corporate ownership and concentrate corporate assets. Increased corporate concentration is associated with an enlarged income share for large firms. These firms have plowed historically unprecedented resources into stock repurchase. And because corporate executives are often compensated with stock, this has been one factor, via share price inflation, of heighted American income inequality. A second factor behind American income inequality is the increasing proportion of corporate profit distributed to shareholders in the form of dividends. This appears to be *the* key determinant of American income inequality over the long term.

The facts demonstrate that corporate America does not suffer from a "shortage of investment" in the general sense; rather, resource redirection within large firms, with comparatively less going toward growth-enhancing industrial expansion and comparatively more going toward asset-concentrating amalgamation and share price-inflating stock repurchase, helps explain the stagnant growth that plagues the United States. There has been an investment boom in the United States, albeit an invisible one, because it has been hidden in amalgamation and stock option-related activities. The former redistributes corporate ownership claims between proprietors and concentrates assets, while the latter inflates share prices.

Ultimately, the merger boom since 1990 has concentrated corporate power and redistributed national income toward the largest American corporations. From the standpoint of the average American worker, the casualties arising from this massive resource redirection are shrinking job opportunities and soaring income equality.

Part II: Labor Unions, Inflation, and the Making of an Inclusive Prosperity

> *The produce of the earth … is divided among three classes of the community.… To determine the laws which regulate this distribution is the principal problem in Political Economy.*
>
> —David Ricardo (1817)

The preservation of past experience in cultural memory can be lost, often with serious social consequences. Without an adequate understanding of the past, we are bound to misunderstand the present. And misunderstanding the present hampers our ability to realize future goals. But can we forget something we did not understand in the first place? American labor unions have long been attacked by factions of the business-government alliance. The success that this alliance has had in undermining unions is fueled, in part, by collective cultural amnesia. It is easier to be apathetic, even cynical, about assaults on a social institution if one does not understand why that institution emerged or what role that institution plays in enhancing the quality of human life. Many Americans do not have the luxury of forgetting about the socially beneficial aspects of unions for the simple reason that they never understood that role to begin with.

As the epigraph indicates, David Ricardo—the great classical political economist—believed that the primary task of economic science is to lay bare the underlying patterns and regularities that govern the distribution of income and wealth. Given the centrality of income in conditioning human possibilities on both an individual and a social scale, it's no wonder he thought it imperative to come to a satisfactory account of distribution. It is typically left to economics to sort out how the distribution of income works. Indeed, orthodox ("neoclassical") economics would confidently assert that is has firm knowledge about how incomes are formed and, by implication, how they are distributed. However, there are good reasons for doubting the validity of neoclassical dogmas.

The starting point of this investigation is the fact that in the Keynesian welfare regime (roughly 1935–80) GDP grew at a rapid clip and income inequality was more than halved. With the emergence of neoliberal globalization (1980–present), growth sharply decelerated and inequality soared. The analytical and policy challenges associated with this double-sided phenomenon have been explored by researchers using tools from the standard economic toolbox. Part of the inadequacy of existing explanations is the absence of institutional power and distributive conflict as explanatory variables. The following seeks to fill this gap using tools from early American institutionalism and Post Keynesianism. While there are

many moving parts to the story of growth and inequality, the amassment and exercise of institutional power in conjunction with distributive conflict between competing income groups are two important, though underexplored, parts.

Specifically, I explore the points of contact between American unions, inflation, and income inequality. Instead of probing the conventional causes of inflation, a distinctly heterodox set of questions is explored. Does inflation tend to appear amidst distributive conflict? Is inflation associated with the redistribution of income between different income groups? Does the amassment and exercise of institutional power have a bearing on changes in the price level? Putting the questions together: can inflation be viewed as a power process that is nourished on social conflict and systematically bound up with the redistribution of income between income groups? The following builds on the conflict theory of inflation by drawing together and assessing a complex range of empirical data to show that American inflation can be viewed as a power process.

Supplying a satisfactory, albeit tentative, answer to the foregoing questions entails responding to the following conditional statements: *if* it can be shown that inflation is closely associated with outbreaks of distributive conflict, measured as strikes and lockouts, such that higher levels of conflict entail more rapid inflation and lower levels of conflict entail disinflation or deflation; and *if* the distributive conflict is associated with the redistribution of income between different categories of owners, namely the owners of labor power and the owners of corporations, such that accelerating inflation tends to appear with the redistribution of income from capital to labor (and vice versa); and *if* distributive conflict is positively associated with the redistribution of personal income, such that intensified conflict is progressively redistributive and diminished conflict is regressively redistributive; *then* we can be reasonably confident in the nested assertion that (1) inflation may validly be thought of as a power process (2) insofar as its level is shaped by distributive conflict between competing income groups and (3) the winners of said conflict have income redistributed in their favor.

The remainder of this analysis is presented in six sections. The first section reviews the "conflict inflation" approach, paying particular attention to the way heterodox scholars imagined price formation and inflation in power-laden terms. It also discusses the interplay between institutional structure and market power, arguing that large firms and labor unions possess measurable degrees of market power and that the commodity prices they shape reflect the relative power of each group. The second section explores the points of contact between the "countervailing power" of trade unions and labor income. Over the long haul, average labor compensation and the share of national income going to workers in the form of wages and salaries are shaped by union density (institutional structure) and strike activity

(distributive conflict). The third section explores the commodified power of large firms and finds that corporate amalgamation not only fuels the concentration of assets, a finding disclosed in part I, but also increases the market power of large firms. And elevated market power among large firms shapes the distribution of income between workers and corporations.

The fourth section contrasts inflation with the income gains made by labor and capital. The historical facts suggest that the hourly earnings of labor and of large firms are both closely associated with inflation. Because the *nominal* income gains of labor and capital are synchronized with inflation, the fifth section shifts the analysis to differential terms (see Nitzan and Bichler 2009) in order to assess the distributive aspects of American inflation. Over the past century, inflation has partially manifested the conflict-fueled redistribution of income from capital to labor and from the upper to the lower strata of the personal income hierarchy. The sixth section summarizes the findings and makes some recommendations for how neoliberal capitalism can be reformed in a manner that bolsters growth and reduces inequality.

Overall, I argue that labor unions are progressively redistributive—they redistribute income from capital to labor and from the upper to the lower income brackets—at the cost of significant inflationary pressure. The implication is that American inflation must be understood in terms of institutional power and distributive conflict, both because these factors assist in the production of inflationary pressure and because inflation has been systematically associated with the redistribution of income.

Distributive Conflict and Inflation

Outside mainstream economics, a school of heterodox economists emerged that viewed inflation as the product of the excessive claims made by different income groups over national income—the so-called "conflict inflation" approach (see Rosenberg and Weisskopf 1981). The wage bargain secured by workers and the pricing policy of business has the potential, Robert Rowthorn (1977) argued, of exceeding what is available for each group from national income. The excess of income claims over available income produces inflation, which Rowthorn asserts will always transfer "real income from workers to capitalists," implying that any inflationary redistribution will always at the expense of workers. In this perspective class conflict over national income fuels inflationary spirals. Richard Burdekin and Paul Burkett (1996) tell us that the "winners" from inflation will be the "claimants enjoying relatively great economic and political power" (p. 24). Jonathan Nitzan and Shimshon Bichler (2009) make a similar argument when they tell us that inflation is the "surface consequence" of a "redistributional struggle" fought between different groups. One implication of this claim is that those who raise their price faster

than others simultaneously redistribute income in their favor, thus creating distributive "winners" and "losers."

Rather than attributing causality to the earnings margins of large firms, some put the emphasis on worker wage demands. Sidney Weintraub's (1978, 1978–79) "wage cost markup" theory proclaims that inflation is a consequence of wages rising faster than productivity, and because the flow of wages and salaries are what determine societal purchasing power, there is no effective difference between "demand pull" and "wage push" (1978–79). Wallace Peterson (1982) would have us believe that insofar as wages rise above productivity, power is what explains the gap. For Peterson (1980), "power" is "control over income," and is derived from either organizations like labor unions and corporations or through the pressure put on governmental bodies to shape policies to one's advantage. Finally, the work of Paul Dalziel (1999–2000), Marc Lavoie (1992; 2014), and other Post Keynesian scholars posit that the wage bill determines firm claims on the bank system and ultimately influences the supply of money (technically referred to as the "horizontality" and "endogeneity" of money). The implication is that inflation is produced at the level of wage bargaining. Dalziel concludes that inflationary episodes can be traced to problems of social protest and competition, particularly the distributive conflict over income.

The writers surveyed here often speak of "market power" or "organizational power" as an important aspect of the inflationary process. This flies in the face of orthodox scholarship, which focuses solely on the neutrality of money in advancing a monetary view of inflation. It is this lack of attention to the power dynamics associated with inflation that forms a critical limitation in the orthodox scholarship. While the conflict approach to inflation advances the intellectual needle, this line of thinking requires concrete substantiation. What is needed, then, is an examination of the institutional power of different groups as a point of entry into the interplay between distributive conflict and variation in the level of inflation.

Trade Union Power and Labor Compensation

Having accepted the view that large firms no longer accept prices that are set in perfectly competitive markets, and so could no longer be thought of as being socially optimizing, John Kenneth Galbraith (1952), the late Harvard economist, went on to posit that alternative institutional arrangements were needed to make modern capitalism more functional and fair. Because businesses combine with a view to administering profit-friendly prices, wage earners ought to combine in unions with a view to elevating labor compensation. Galbraith utilized the term "countervailing power" to denote an institutional setting in which the power of large firms is offset by the power of labor unions and the welfare state. In the

general evolution of policy, politics and culture, labor unions act as a "check" on the commodified power of large firms, and this countervailence is felt in ways as diverse as social policy, politics, and culture, not just wages.

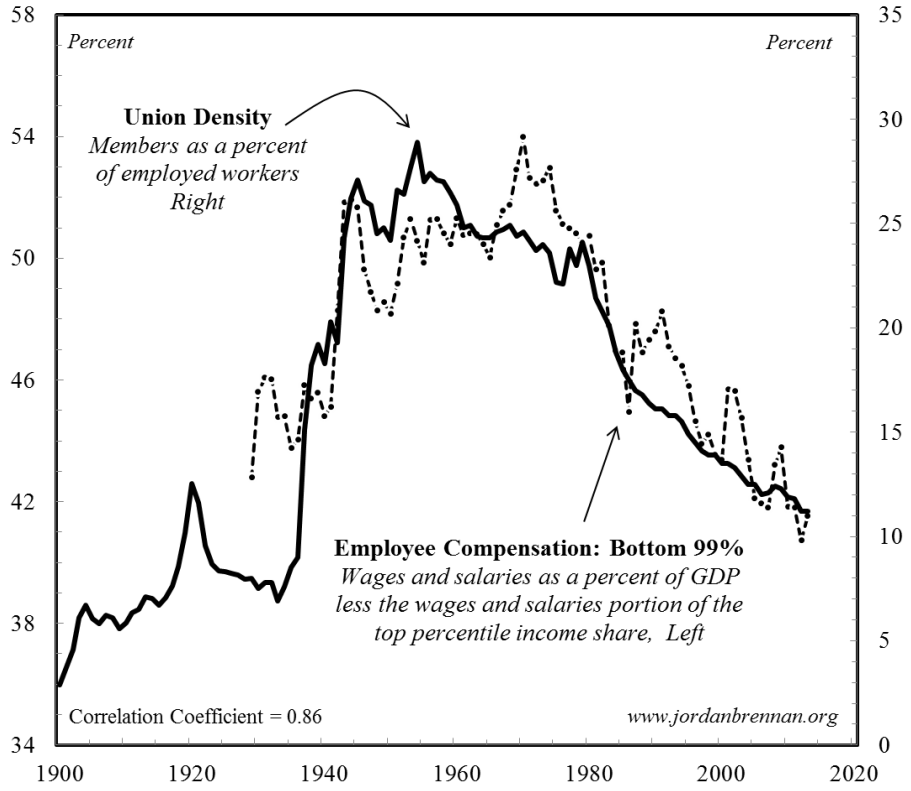
This view stands in opposition to neoclassical economics, which views the market price of labor power like other commodities—in the short run it is determined by supply and demand, and in the long run the "absolute" wage rate and the national wage bill reflect proportional productive contributions. For neoclassicists, organized labor may be able to elevate labor compensation to "artificially" high levels, but it does so at the expense of nonunionized labor and/or employment. In other words, unions can only redistribute income within a given national wage bill—they are unable to redistribute national income as such (Samuelson and Nordhaus 2010). If the neoclassical view is true, there need not be a relationship between trade union power and labor compensation.

Unions represent workers at the bargaining table with employers and, because they are able to negotiate as a collective unit, their bargaining position is enhanced relative to what it would be if each individual bargained in isolation. An enhanced bargaining position (often) enables unions to increase their compensation and benefits to a greater extent than would otherwise occur. Furthermore, by increasing the remuneration of organized workers, labor unions serve to raise social expectations around the level of compensation for work more broadly. This has spillover effects in nonunionized workplaces. What are we to make of the mainstream argument that unionized labor can only redistribute income within a given national wage bill, but not raise it? One way of assessing this claim is to contrast the institutional power of labor unions with the share of national income going to workers. If the two are positively correlated over the long term, this would suggest that trade union power does in fact shape the distribution of income.

Figure 10 plots union density, measured as the proportion of union membership in total employment, and an adjusted national wage bill from 1900 to 2013—the latter measured as total wages and salaries divided by GDP less the wages and salaries share paid to the top percentile income group. By adjusting the national wage bill in this manner we approximate the class-based distribution of income. And because most people in the top-percentile income group are not in a union, we will be able to determine if there is a relationship between the level of trade union power and the share of national income going to what used to be called the "working class." The correlation between the two variables is 0.86 over the past century, or very high (and statistically significant).

Figure 10

Organized American Labor Strength and the National Wage Bill, 1900-2013



In 1900, unionization was below 3 percent, though it trended upward until 1920. The combined effect of demobilization after the First World War and a deep recession in the early 1920s led to a decline in union density. It was not until 1933, after four years of the Great Depression, that the American unionization began to surge. Facilitated by the National Labor Relations Act of 1935 (the Wagner Act) and other New Deal legislation, union density soared from 7 percent in 1933 to a historic high of 29 percent in 1954. Antiunion legislation such as the Taft–Hartley Act[6] in 1947 and the reactionary political forces associated with McCarthyism in the early 1950s contributed to declining unionization in the subsequent period. In the quarter century between 1954 and 1979, unionization modestly declined, falling from 29 percent to 24 percent. The decline of American trade unions sped up with the Reagan administration's antiunion efforts as well as other economic and technological developments, such as offshoring and automation. By 2013 overall American union density stood at just 11 percent.

[6] Labor Management Relations Act of 1947.

The adjusted national wage bill followed a similar pattern. The wage bill for the bottom 99 percent was 43 percent in 1929 and rose in a gradual fashion to a historic high of 54 percent in 1970 before falling to 42 percent in 2013—a historic low. It isn't a coincidence that the national wage bill declined from the 1970s onward. The main driver of a shared prosperity—unionization—markedly declined over that period.

In order to meaningfully analyze institutional power we must be able to distinguish the *amassment* of power from the *exercise* of power. The facts in Figure 10 speak to the organizational capacity of unionized workers (amassed power), but they are silent on the extent of workplace action that American labor actually undertook (the exercise of power). The ability of workers to intentionally act in concert represents a type of power. In addition to the level of density, the collective ability of workers to refuse to work without a satisfactory contract—a work stoppage or strike—imposes a penalty on employers who fail to meet demands around compensation, benefits and working conditions. Arguably, this is the main institutional "weapon" that labor possesses. And a strike is among the clearest manifestations of the distributive conflict between different income groups, namely profit-seeking proprietors and wage-earning workers.

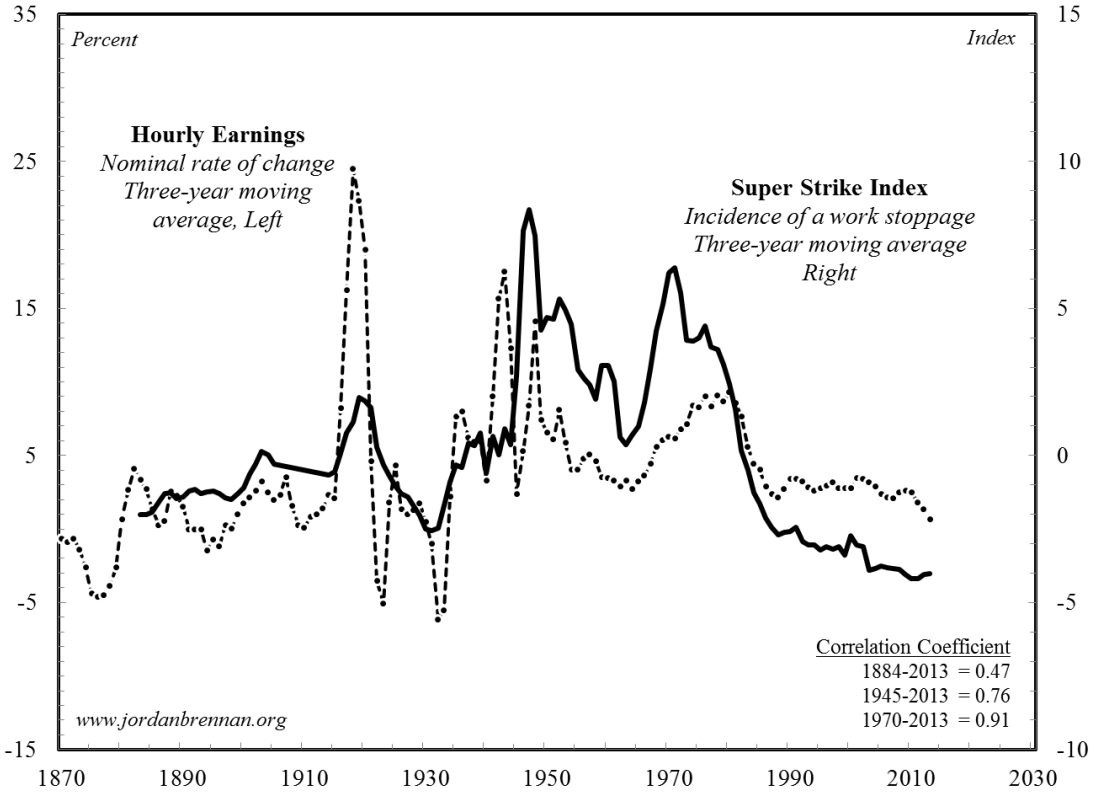
Workers strike for reasons other than wages, of course, but does the extent of strike activity help explain changes in American labor compensation? Figure 11 contrasts the rate of change of average nominal hourly earnings with the extent of strike activity, both smoothed as three-year moving averages to ease the visual assessment. The latter is a super index composed of the average of four sub-indices: the number of work stoppages, the number of workers involved, the number of days idle, and the percent of work time lost.[7] In the resulting super index, a value of 0 means strike activity is at its historical average, with positive and negative values signaling above average and below average strike activity, respectively. The extent of strike activity is tightly and positively correlated with the rate of growth of hourly earnings and the strength of the statistical relationship steadily increases over time.

Over the past 130 years there have been three major strike waves. The first wave occurred during the First World War and peaked in 1919. Over the next 15 years the extent of strike activity declined (in tandem with deunionization), but a second strike wave began in the early 1930s that peaked in 1947. Strike activity trended downward till 1963 when a third wave began, which peaked in the early 1970s. American labor disobedience declined precipitously in the late 1970s and, as of 2013, stood at an

[7] A more detailed explanation of this strike index is to be found in the Appendix.

all-time low. The pattern of wage growth also went through three waves of similar duration. Note that major strike waves and episodes of rapid wage growth coincide with social crises—two world wars, the Great Depression, a domestic cultural revolution in the United States during the 1960s and 1970s, and an energy crisis–linked war in the Middle East. The timing of these episodes will become more significant once we examine the relationship between labor compensation and inflation.

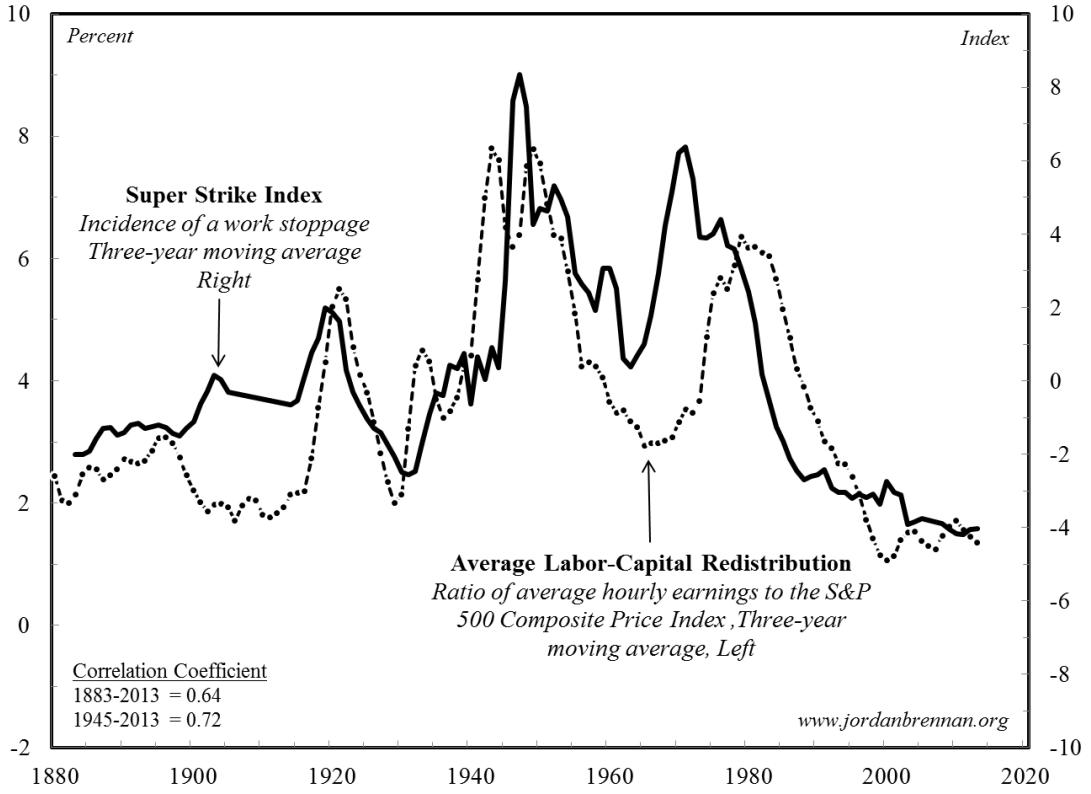
Figure 11
American Labor Disobedience and Labor Remuneration, 1870-2013



It is not entirely clear why domestic labor developments are linked with outbreaks of internationally organized violence and/or crisis. In the case of the first two strike waves, the bargaining position of labor may have been strengthened in the shift from moderate or heavy stagnation to (near) full employment. The experience of the 1960s and 1970s was different, of course. Unemployment did not drop to historic lows; it rose to (what at the time were) postwar highs. It follows that if (successful) worker wage struggles lead to higher labor compensation, this will be transmitted to the national wage bill, which strengthens the claim that the interplay between institutional power and distributive conflict leads to the redistribution of income.

Figure 10 documents the relationship between the institutional power of organized American labor and the national wage bill. Figure 11 shows that changes in average labor compensation are shaped by distributive conflict, namely worker revolts against proprietors. If the relationships presented in these two figures are to be believed, then strike activity should have a redistributive property to it. Does American strike activity redistribute income between capitalists and workers? The validity of Galbraith's countervailing power argument is reaffirmed in Figure 12, which contrasts strike activity with a metric that captures the distributive struggle between labor and capital over wages and profits. The latter is measured as a ratio of average hourly earnings to the S&P 500 price index. When this index rises, workers redistribute income from capitalists; when it falls, capitalists redistribute income from workers.[8] Both series are smoothed as three-year moving averages and are tightly correlated over the past 130 years, with the strength of the statistical relationship increasing over time.

Figure 12
Labor Disobedience and Class Income Redistribution, 1880-2013



[8] This method of capturing the distributive struggle between workers and capitalists was first brought to my attention in Jonathan Nitzan's political economy graduate course at York University.

There have been three major strike waves over this period, two of which unfolded during the 1930s–40s and the 1960s–70s. These outbreaks of labor disobedience were hugely and progressively redistributive and appear to have played a crucial role in the creation of an inclusive prosperity. In the decades since 1980, labor militancy has fallen to a historic low and, perhaps unsurprisingly, the labor-capital redistribution index has reached a 130-year low. The pacification of the labor force, driven partially by antiunion labor laws, has contributed to what might be the most regressive redistribution of income in American history. The sharp decline in the labor-capital redistribution index since the 1980s is consistent with other findings, namely that capital has tended to claim a larger share of national income at the expense of labor. So not only are American workers striking less than ever before, but the gains from growth are also more heavily tilted in favor of capital than they ever have been.

The orthodox economic argument that labor unions cannot enlarge the national wage bill or increase labor compensation is not supported by the historical facts. Unions were (and are) integral to raising the average standard of living in the United States and in determining how the gains from growth are shared (within the firm) between the two main income classes. If union density and strike activity are power processes that progressively redistribute income, why has American income been regressively redistributed in recent decades? The decline of unions and the descent of strike activity appear to be causal variables, but how can we make sense of the amassment and exercise of power with respect to business?

Corporate Power and Capitalist Income

Part I of this analysis presented new estimates of American mergers and acquisitions (M&A) and aggregate asset concentration. The latter is understood by heterodox economists as a proxy for the overall power of large firms. The deep historical facts suggest that corporate amalgamation fuels the concentration of corporate assets. The analysis went on to show that as the corporate sector concentrates large firms claim a greater share of national income. This is consistent with the heterodox view that market power comes with firm size. In the language of classical and neoclassical economics, “perfect competition” is a condition in which a large number of buyers and sellers, perfect information, free entry and exit, and homogenous products prevail. Under this market structure, sellers do not have the ability to influence price. But as firms combine and the market structure moves from the competitive end of the spectrum to the oligopolistic and monopolistic end, large firms go from being price takers to price shapers and price makers.

Gardiner Means (1935) and Michał Kalecki (1971 [1938]; 1971 [1943]) argued that large firms in concentrated market structures behave differently than small- and medium-size firms operating in competitive markets. Kalecki devised his concept of the "degree of monopoly" to capture this difference in price behavior. Large firms have greater pricing discretion than smaller firms and their monopoly power can be approximated, Kalecki argued, in the spread between their costs and their selling price. For the purposes of this investigation, the earnings margins of large firms can be used as an approximation for market power. By merging, large firms not only absorb their rival's income but also reduce competitive pressure, which elevates earnings margins. So the causal pathway runs from amalgamation through concentration toward market power.

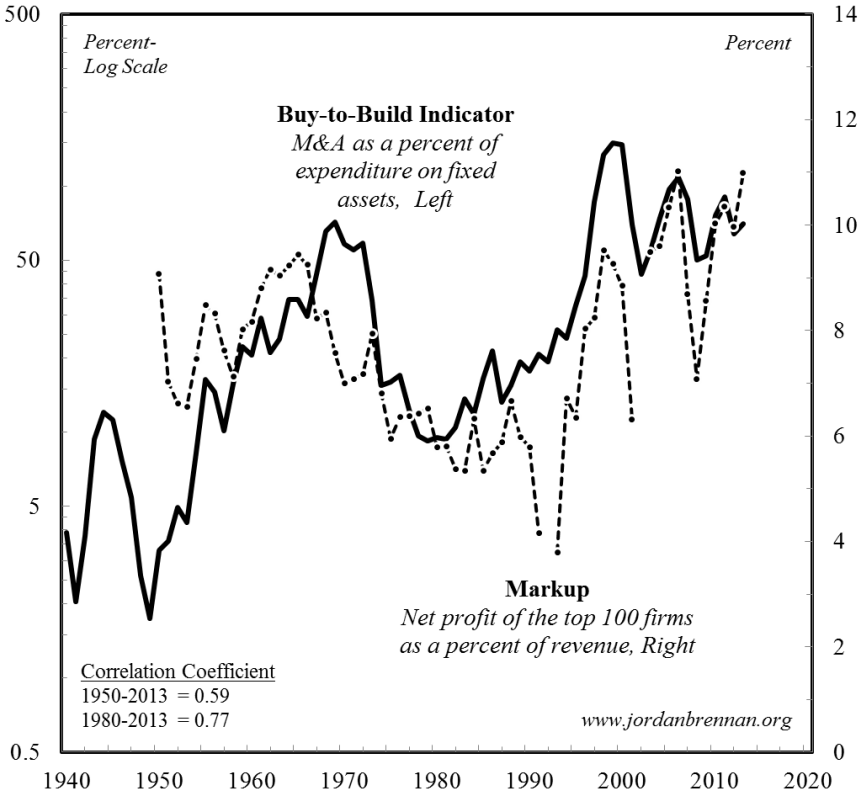
Though intuitively correct, this line of theoretical reasoning must be tested to assess its empirical validity. If there is a relationship between M&A and corporate concentration, does this imply that merger activity leads to elevated market power amongst large firms? Figure 13 replots the buy-to-build indicator (measured as the percent of M&A in fixed asset investment) alongside the markup of the largest 100 American-listed firms, the latter a proxy for Kalecki's degree of monopoly (measured as the percent of net profit in revenue, with outlying values removed in 1992 and 2002). The two series are positively correlated over six decades and the strength of the statistical relationship increases over time. In the decades when merger activity increased, the market power of large firms tended to increase. In the decades when merger activity subsided, market power also declined. So the claim that amalgamation and concentration leads to elevated market power has considerable empirical support in the United States.[9]

Large corporations in "semi-monopolistic" settings not only tend to have greater pricing discretion, as Means (1935) showed, but they tend to have deeper earnings margins. Kalecki (1971 [1943]) also argued that the degree of monopoly is of "decisive importance for the distribution of income between workers and capitalists" (p. 51). The power to inflate earnings margins, Kalecki argued, shapes the distribution of income:

> The long-run changes in the relative share of wages … [are] determined by long-run trends in the degree of monopoly.… The degree of monopoly has a general tendency to increase in the long run and thus to depress the relative share of wages in income … [although] this tendency is much stronger in some periods than in others. (Kalecki 1971 [1938], p. 65)

[9] These relationships are also present in Canada over the postwar period. See Brennan (2012; 2014; 2015).

Figure 13
Amalgamation and Market Power, 1940-2013



For the purposes of the present discussion, Kalecki's basic assertion can be restated as a question: is it true that the degree of monopoly among large firms (measured using the markup) has a bearing on the relative share of wages, and therefore shapes the distribution of income between workers and capitalists?

Broadly speaking, income within the firm is shared between workers (in the form of wages and salaries) and capitalists (in the form of profit). At a national level, the total wage bill and profit share capture these proportions. When we divide aggregate corporate profit by the national wage bill for the bottom 99 percent of the workforce, excluding the richest 1 percent income group to approximate the class-based distribution of income, we arrive at a metric that approximates the distributive struggle between corporations and workers over profit and wages. When this metric increases, corporations are redistributing national income from workers and when it declines workers are redistributing national income from corporations. It is important to note that whereas Figure 12 was comprised of averages, these are aggregate figures, which means this metric captures how two of the main components of national income—wages and profits—are being shared between labor and capital.

Figure 14
Market Power and Capital-Labor Redistribution, 1940-2013

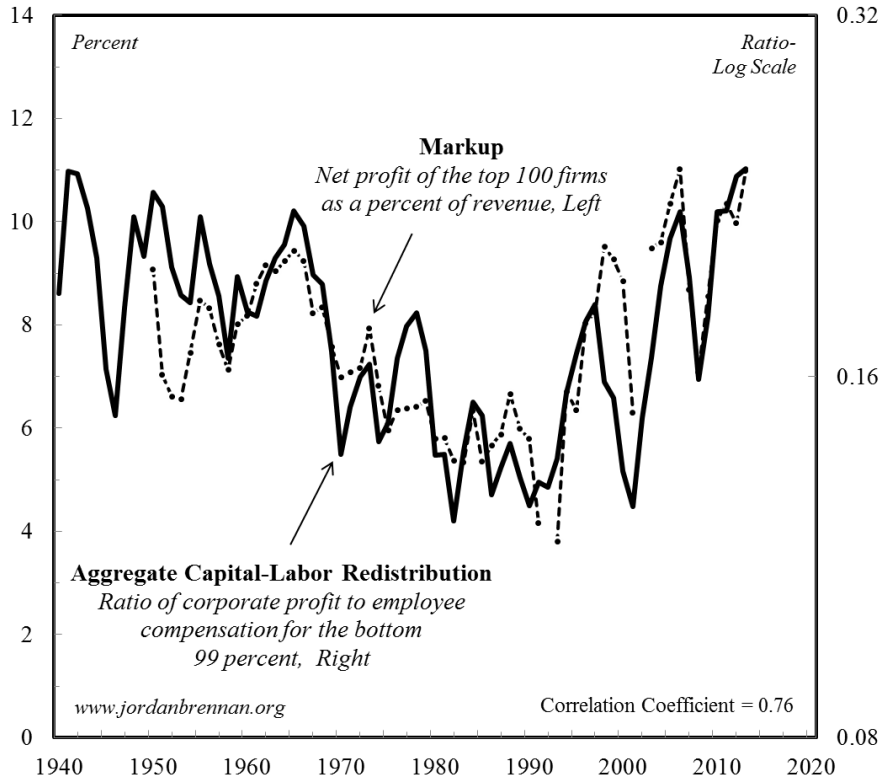


Figure 14 plots the markup of the top 100 firms (with outlying values removed in 1992 and 2002) and the aggregate capital-labor redistribution metric. The two series are tightly and positively intertwined over six decades. Between 1940 and 1980—the embedded liberal era—the capital-labor redistribution metric trended downward, which signals that workers tended to win the distributive struggle in that period. The 1980s serves as an inflection point and then, in the period of after 1990—the so-called "free trade" era—the redistribution metric trended upward, which signals that corporations tended to win the distributive struggle in that period. If the markup is a proxy for the market power of large firms, and if the capital-labor redistribution metric captures the struggle between proprietors and workers, it is highly significant that the former moves in tandem with the latter because it suggests that corporate power is one determinant of the distribution of American income.

The preceding two sections substantiated the assertion that the interplay of institutional power and distributive conflict determines how national income is shared between various income groups. Trade union power, manifested in union density and strike activity, progressively redistributes income

while corporate power, manifested in aggregate concentration and the markup, regressively redistributes income. How are these processes related to inflation?

Labor Income, Capitalist Income, and Inflation

Recall that some scholars viewed worker's wage demands as a source of inflationary pressure while others argued that the market power of oligopolistic corporations is the driving force behind inflation. These claims were often advanced without the requisite evidence. This section will unpack these hypotheses for the United States. We have already discussed the linkages between the institutional power of labor, distributive conflict, and market prices, noting that the market price of labor and the national wage bill are shaped by the relative size of labor organizations and extent of strike activity. Are there linkages between labor compensation and inflation? And what role, if any, does the institutional power of business play in generating inflation?

Figure 15
American Labor Remuneration and Inflation, 1850-2013

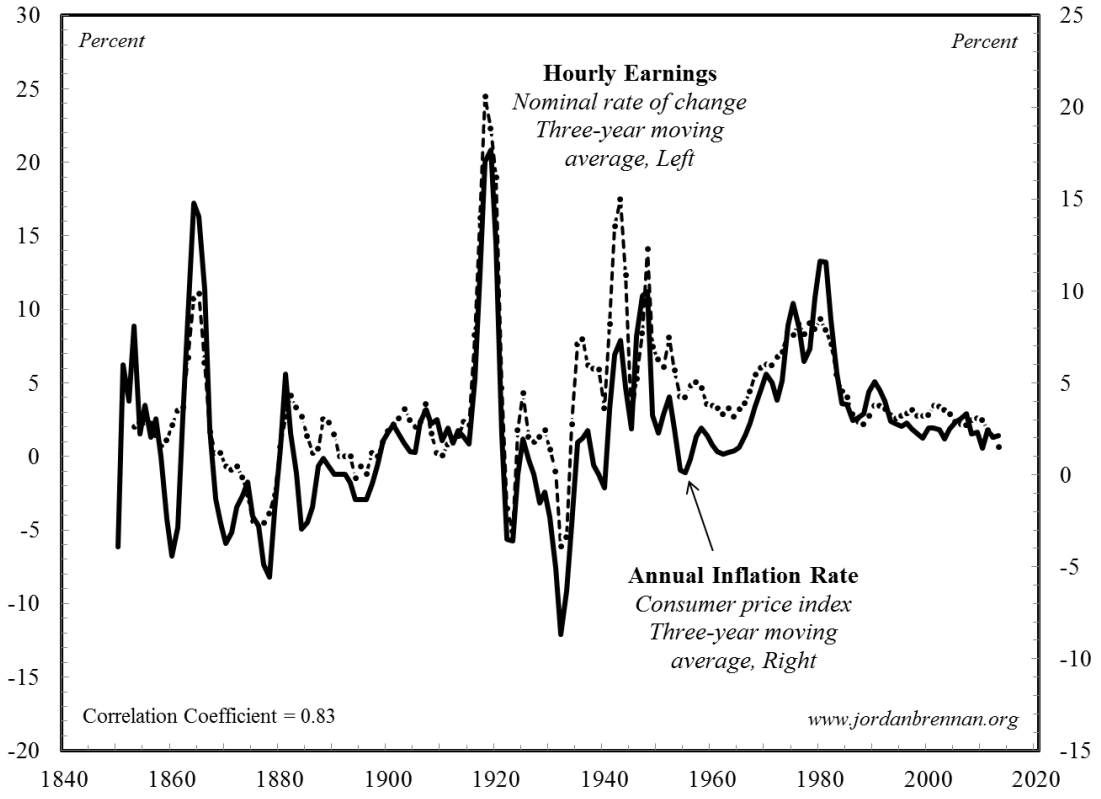


Figure 15 contrasts inflation and labor compensation by plotting the nominal rate of change of average hourly earnings and the annual rate of consumer price inflation from 1850 through 2013 (both series are smoothed as three-year moving averages). The statistical association between inflation and

worker compensation is visually unmistakable. The correlation coefficient is very high (0.83) and statistically significant. Note that in the embedded liberal era the annual inflation rate tended to be relatively high and/or rising; in the neoliberal era it has been relatively low and/or falling. Average labor compensation followed a similar pattern.

Taken together, Figures 10–12 and 15 indicate that union density and the extent of strike activity shape labor compensation, and labor compensation is closely associated with inflation. When the bargaining position of workers improved either as the result of a social crisis like a world war—a situation in which society moves toward full employment—or when workers are able to successfully utilize the strike weapon to increase the value of wage settlements, the result is a higher proportion of firm revenue accruing to workers in the form of wages. This may compel proprietors/managers to inflate earnings margins to accommodate heightened wage demands. The resultant increase in worker purchasing power may then be transmitted through to a higher societal price level.

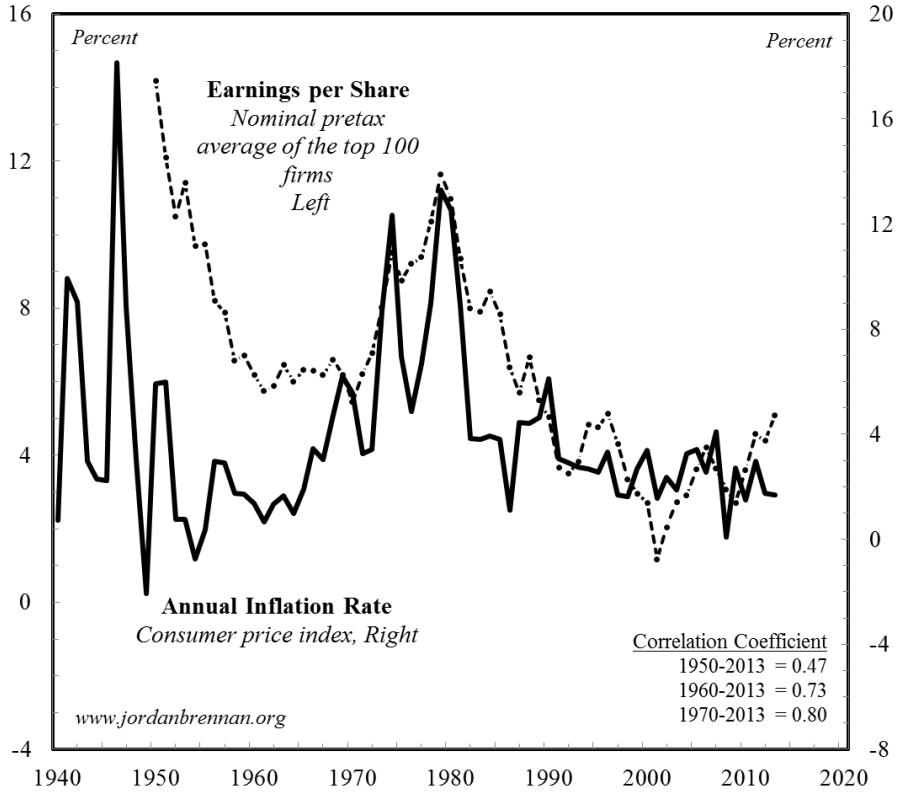
This finding does not imply that workers are the sole or even primary cause of inflation. The facts portrayed in part I of this analysis and in Figures 4 and 5 indicate that the relative size of the top 100 US-based firms is positively related to their earnings margins, which is understood to mean that there is a linear relationship between institutional size and market power. Given the evidence on the linkages between labor power and inflation as well as the earlier conclusions of the conflict inflation theorists, this suggests that there may also be a relationship between the earnings of large firms and American inflation.

Figure 14 tests the validity of this claim by contrasting American inflation (measured using the consumer price index) with the average earnings per share (EPS) of the top 100 American-listed firms. Whereas Figure 15 contrasted inflation with hourly earnings—a unit of ownership of labor power—in utilizing corporate EPS, Figure 16 discloses the inflationary pressure generated by large firms per unit of ownership. The two series are positively correlated over six decades. When we periodize the data, the strength of the correlation increases. This implies that inflation and the earnings of large firms have become increasingly synchronized over the past six decades. This also suggests that the accelerating increase in prices between the 1960s and 1980s—the “crisis inflation” or “stagflation”—was at least partially driven by the market power of large firms.

To summarize, the evidence suggests that inflation is at least partially a product of the income gains made by workers and by capitalists. Labor income is shaped by strike activity and union density whereas the earnings of the 100 largest firms are shaped by their market power (manifested in aggregate concentration and the markup). Therefore, the two streams of the conflict inflation literature

fit rather neatly with the American experience. This does not indicate that both types of inflation are similarly present in all periods or that they have an equal impact on the price level. In the absence of other intervening variables, American inflation reflects generalized forms of labor disobedience, monopoly pricing power, or, most likely, a combination of both. When we control for the fact that wages account for a much higher proportion of GDP than does corporate profits—the national wage bill is anywhere from four to eight times larger—two conclusions ensue: (1) it is unlikely that a rise in the price level equally benefits both capital and labor; and (2) higher levels of inflation are more likely to be reflective of intensified labor disobedience.

Figure 16
The Earnings of Large Firms and Inflation, 1940-2013



Who Wins from Inflation?

The research results presented thus far indicate that American inflation has multiple points of contact with institutional structure and distributive conflict, which implies that the power differentials between different groups—notably labor and capital—may be significant if we are to understand the causes (and consequences) of inflation. This brings us to another important element of this argument, namely, that

changes in the overall price level are shaped by the complex interplay of power differentials between income groups. One way of testing this conclusion is to see if, over the long term, there is a redistributive dimension to American inflation. This entails shifting the methodological emphasis from absolute income gains to differential and distributive income gains. The necessity of differential analysis for uncovering the power dimensions of inflation is described by Nitzan and Bichler (2009). Their argument is vital to the analysis that follows and we quote them at length:

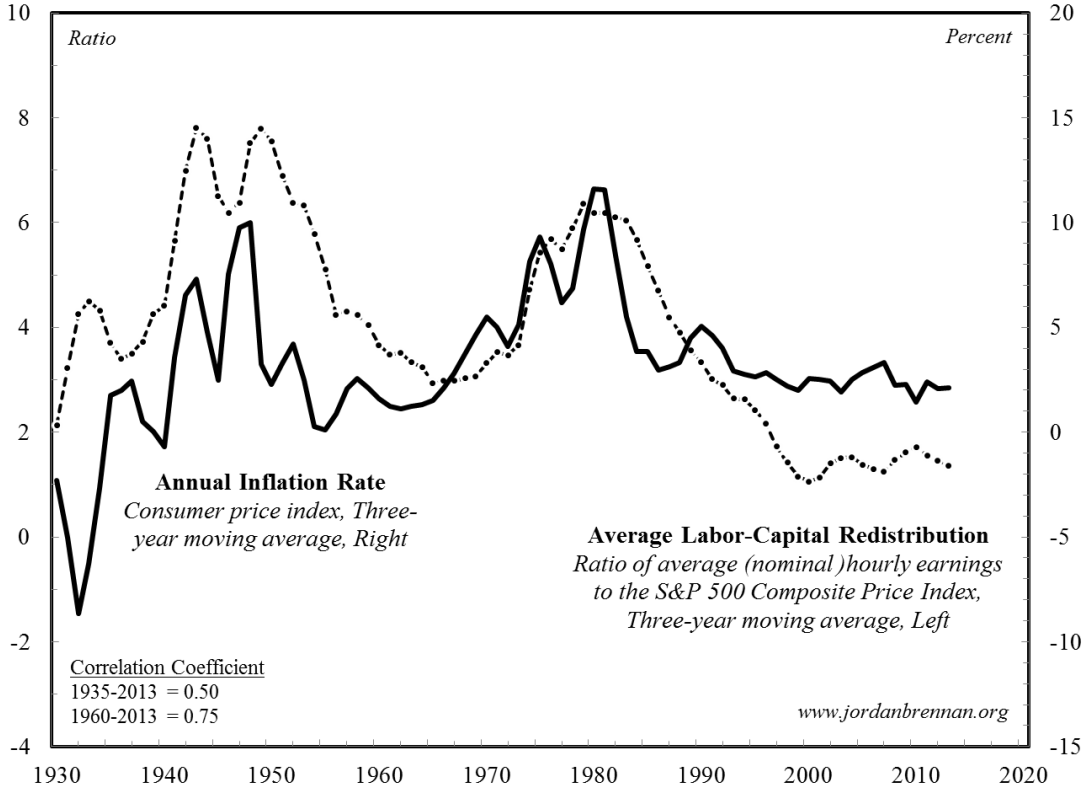
> …the conventional definition [of inflation] focuses wholly and only on averages and totals. This fact is crucial, since to define inflation in this way is to miss the point altogether. The crux of inflation is not that prices rise in general, but that they rise differentially.… Although most prices tend to rise during inflation, they never rise at the same rate. There is always a spread, with some prices rising faster and others more slowly. From this viewpoint, the engine of inflation is a redistributional struggle fought through rising prices. The overall level of inflation is merely the surface consequence of that struggle. So in the end, Milton Friedman is right—but only in part. Inflation is always and everywhere a monetary phenomenon; but it is also always and everywhere a redistributional phenomenon. (Nitzan and Bichler 2009, p. 369)

For Nitzan and Bichler, then, it is precisely because the consequences of inflation depend on the *relative* power of capital and labor that the relationship between inflation and power cannot be understood in absolute terms. They support their assertions by mapping postwar American inflation onto the differential income gains of different income groups to find that inflation has tended to redistribute income from workers to capitalists and from small firms to large firms.

Shifting our analysis from absolute to differential terms may assist in determining the points of contact between inflation and distribution. Figure 17 plots inflation against the labor-capital redistribution metric, the latter computed as a ratio of average hourly earnings to the S&P 500 price index. Both series are smoothed as three-year moving averages. This differential indicator crystallizes the distributive struggle between the owners of labor power and the owners of corporate equity: when it rises, labor is redistributing income from capital, and when it falls, capital is redistributing income from labor. Based on the evidence presented in Figures 10–12 and adjusting for the fact that wages represent a considerably larger share of GDP, we would expect the labor-capital redistribution metric to rise alongside positive changes in the annual inflation rate. The two series are positively correlated and the

strength of the statistical relationship increases over time. This supports the assertion that American inflation is a partial manifestation of the distributive struggle between labor and capital over wages and profits. The distributive gains made by labor between the early 1960s and the late 1970s appear to have been a partial driver of the accelerating inflation of that period, whereas the capital-favoring distribution after 1980 appears to have been a partial driver of the disinflation in that period.

Figure 17
American Inflation and Labor-Capital Redistribution, 1930-2013

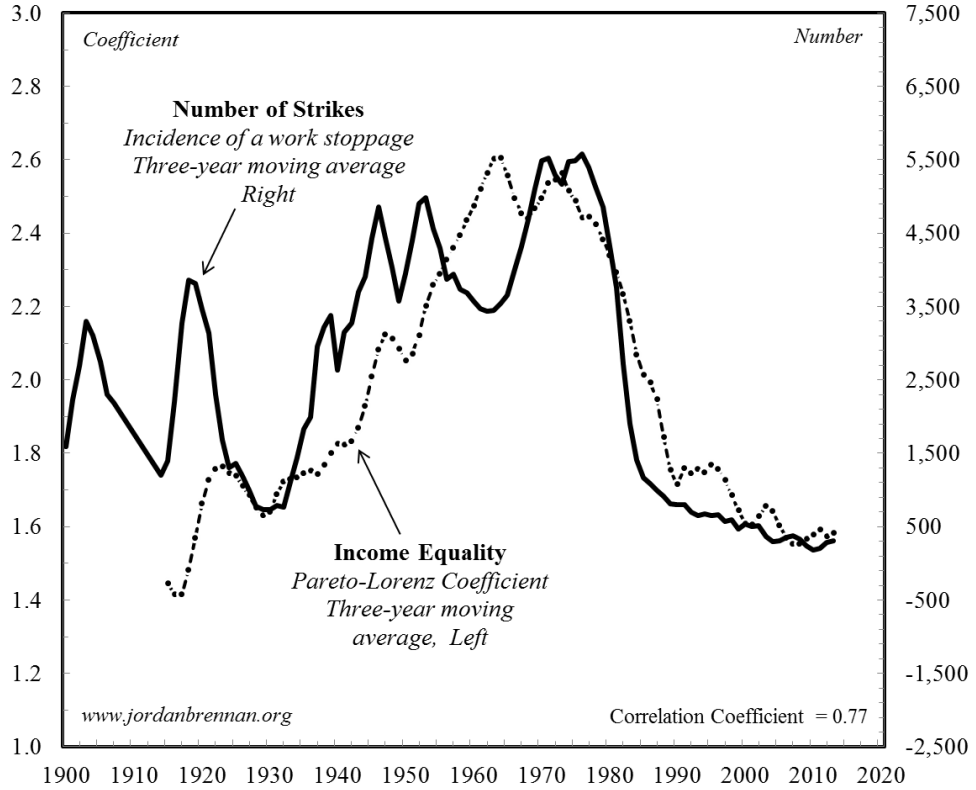


Another way of assessing whether inflation has a redistributive property is by examining the distribution of *personal* income. If conflict-fueled inflation appears with the redistribution of income from capital to labor, we would expect the income share of the richest Americans to decrease in tandem with episodes of high and/or rapid inflation. The top income share-eroding aspects of inflation are rooted in two crucial assumptions: first, the American corporate sector has controlling owners; and second, those who own the corporate sector populate the upper echelons of the top income group. In other words, dominant capitalists occupy the top of the personal income hierarchy in the United States.

Figures 11 and 12 demonstrated that the extent of strike activity shapes the rate of wage growth and, by implication, how firm revenue is shared between workers and proprietors. Figure 15 showed

that worker wage gains are associated with inflation. Figure 18 contrasts a different measure of strike activity—the absolute number of strikes—with the Pareto–Lorenz coefficient between 1900 and 2013 (with both series smoothed as three-year moving averages). The question is: does strike activity ("labor disobedience") increase income equality? The Pareto–Lorenz coefficient captures the concentration of income among the rich: the higher the coefficient, the lower the concentration. Over the past century, the extent of strike activity maps on very tightly to the level of income equality. This implies that working-class strike activity—which has a demonstratively inflationary aspect to it—contributed to the redistribution of American income from the upper to the lower income brackets. The two series rose together from the 1920s, peaked in the 1970s and declined thereafter, reaching a postwar low in 2013.

Figure 18
'Class Struggle' and Income Equality, 1900-2013



The term is used pejoratively, but insofar as strike action involves the owners of labor power revolting against the owners of corporate equity—workers and capitalists—this activity is a manifestation of what the classical political economists referred to as "class struggle." This type of struggle is closely associated with an inflationary redistribution of income, such that the pacification of American labor force in recent decades has meant stagnant wage growth, a shrinking national wage bill

and a surging top income share. The facts in Figure 18 support the notion that American inflation is (1) closely associated with distributive conflict and (2) it systematically manifests the redistribution of income. An additional implication seems to be that what we today call the "middle class" was a partial outcome of class conflict.

There are a number of implications to these findings. The first implication is that heightened distributive conflict and workplace revolt contributed to an inflationary scramble between large firms and labor. Over the long haul, this conflict tended to redistribute income from capital to labor and from the upper to the lower echelons of the personal income hierarchy. Second, the American middle class was largely built between 1940 and 1980. This was a period of relatively high and/or accelerating inflation, driven partially by union-backed worker wage struggles. Beginning in the late 1970s, the American state and the Federal Reserve embraced an anti-inflationary monetary policy. If inflation is beneficial for the working and middle classes, and if inflation is harmful to larger firms and the top income group, then one interpretation of the shift toward anti-inflationary monetary policy is as the use of state power to redistribute income from labor to capital and from the lower to the upper echelons of the personal income hierarchy. Far from neoliberal globalization implying the "retreat" of state power, in this instance the meaning of neoliberalism is the utilization of state power to restrain the wage demands of the working class and to strengthen the social position of business, especially large firms. Under this interpretation, what is sometimes referred to as "sound monetary policy" is, in effect, working-and-middle-class-restraining, business-class-promoting state policies that upwardly redistribute income.

Conclusions and the Reform of Neoliberal Capitalism

Let's summarize the findings of this two-part analysis. The centripetal forces of corporate amalgamation lead to the centralization of corporate ownership manifested in asset concentration. Increased concentration reduces competitive pressure, thus thickening earnings margins, and enlarges the income share of large firms. The diversion of corporate resources away from growth-expanding industrial projects puts downward pressure on growth and leaves even more corporate income in the hands of large firms. With the rise of stock-based forms of compensation, corporate executives were given an institutional incentive to divert corporate income into share price-inflating stock repurchases, which increases the income of executives and exacerbates inequality. And with higher earnings, large firms distributed comparatively more to stockholders in the form of dividends. It is in this way that the creation of a top-heavy corporate distribution simultaneously puts downward pressure on growth while elevating inequality.

On the other side of the ledger, the trade union power manifest in both union density and strike activity has systematically and progressively redistributed factor and personal income, such that the weakened power of American unions since the 1970s has contributed to heightened income inequality. We have already seen that insofar as the American corporate sector goes, the institutional-organizational structure (aggregate concentration) is closely shadowed by the market power of large firms (registered in the markup). A similar, though countervailing, set of relationships are present for organized labor. Union density, a proxy for the institutional power of organized labor, is positively correlated with income equality. Density increased modestly and in a nonlinear fashion between 1880 and 1930. Then, with the advent of New Deal legislation such as the Wagner Act, density increased fourfold, rising from 7 percent in 1933 to a historic high of 29 percent in 1954, before falling to a postwar low of 11 percent in 2013. The concentration of income among the rich was significantly eroded in the decades that American labor built their unions, and in the decades that trade union power diminished income re-concentrated among the rich.

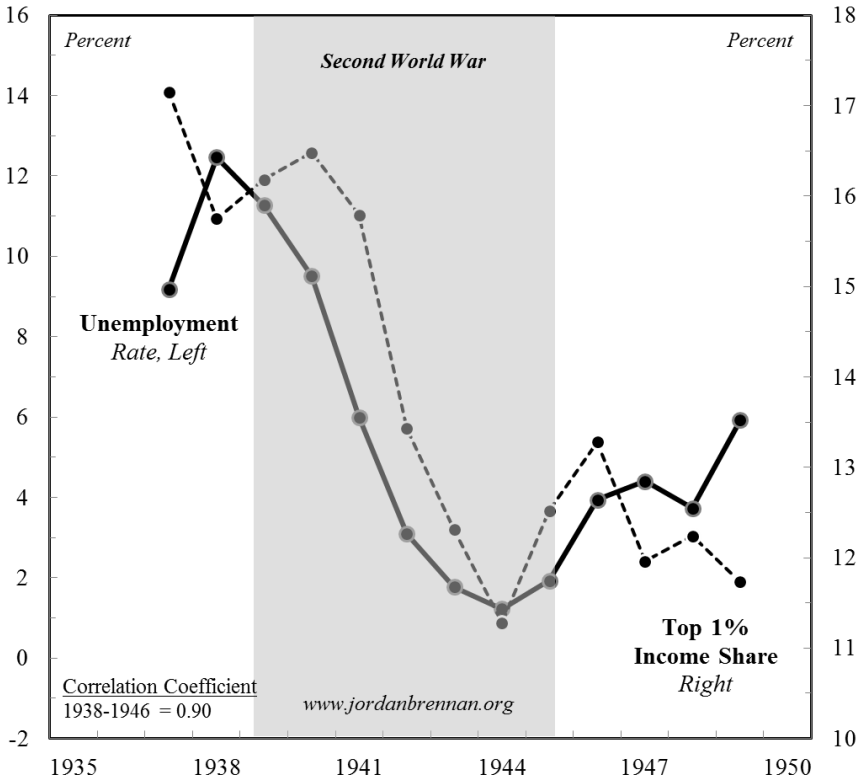
So what does this mean for the reform of neoliberal capitalism? In comparison with the Keynesian state-led model of capitalism that predominated between 1935 and 1980, the neoliberal corporate-led model in the United States (and elsewhere) has, since 1980, been notable for its slower growth and inequality. It appears that a top-heavy corporate distribution amid the decline of organized labor have played a causal role in this double-sided phenomenon. So what can be done to reform the American economy in a way that unleashes growth and reduces inequality? Three baskets of policies stand out: (1) full employment; (2) an amplified voice for labor, including laws that nurture unions; and (3) capital controls.

Chronic unemployment (and underemployment) has been one of the most socially damaging features of neoliberal capitalism. The state commitment to full employment would dramatically alter the labor market in a way that empowers workers, unleashes growth, and reduces income inequality. Consider the facts in Figure 19, which capture the distribution-compressing effects of full employment by contrasting income inequality (registered in the top 0.1 percent income share) and the unemployment rate, with the Second World War shaded in gray. Prior to the war, both unemployment and inequality were comparatively high, but in the war years both were dramatically reduced. Why would both unemployment and inequality fall in a tightly synchronized fashion over this short period?

Recall Veblen's claim about the "natural right of investment": namely, that private ownership of industrial equipment grants proprietors the legal right to enforce unemployment—an act of institutionalized exclusion that restricts production below full socioeconomic potential and alters the

distribution of income in a proprietary (business owner) favoring manner (see Veblen 2004 [1923]). Now consider the reconfigured role of the American state during the Second World War, the prime historical example of the commitment to full employment. Until 1939 employment (*industry*) was firmly under the control of private proprietors (*business*). The Second World War partially changed that insofar as the federal government oversaw the move toward a centrally planned economy. Business considerations, although not totally eliminated, were greatly diminished vis-à-vis industrial considerations and capitalists lost (some) control over employment and pricing.

Figure 19
The "Natural Right of Investment" and Income Inequality, 1937-1949



The consequences for the American power elite were devastating, as evidenced by a near halving of the income share going to the richest 1 percent. In terms of price formation, wage ceilings were imposed, producer and consumer prices were frozen, exchange rates were controlled, and the rate of profit was capped. As a result, unemployment shrank from 12 percent to less than 2 percent and income inequality fell by more than a third. Gross domestic product (adjusted for inflation and population) grew by 10 percent annually, on average, rising from $94 billion in 1939 to $228 billion in

1945. Without exception, the 1940s represents the most rapid growth period in American history and the closest it ever came to full employment.

Being no mere reform, the capitalist power manifest in unemployment was severely curtailed through the use of state power and the consequences included rapid GDP growth and a radically redistribution of income. In the contemporary milieu, the pathways to full employment could include policy tools as conventional as infrastructure investment and growth-friendly monetary policy (Stiglitz 2015) or as unconventional as the creation of a national development bank and public ownership in strategic industries like energy or advanced manufacturing.

If the state commitment to full employment would help solve the problem of stagnation, a stronger voice for labor would help ensure the gains from growth are widely distributed. But labor unions need a nurturing policy environment to grow. The Wagner Act enshrined the right to bargain collectively and compelled private sector employers to recognize the representatives of unionized workers. The National War Labor Board's "maintenance of membership" rule (1942) automatically included new hires in the union so long as the union had been recognized by the employer. It was partially because of these (and other) policies that unionization more than tripled between 1935 and 1945, rising from 8 percent to 25 percent. Labor unions in tandem with the exercise of the strike weapon have a demonstratively and progressively redistributive property. Antiunion legislation like the Taft–Hartley Act in 1947 and many other contemporary manifestations of that legislation, has aided in the demobilization of organized labor in the postwar era, with regressively redistributive consequences.

Another pathway toward the rebalancing of power between labor and capital is to have worker representation on corporate boards. This model of corporate governance—the stakeholder as opposed to shareholder model—is common in Germany (Clarke and Bostock 1997). Besides tending to flatten the compensation scheme within firms, this model reduces the proclivity of management to engage in high-risk activity that may be lucrative for shareholders in the short run, but which threatens employment and the long-term viability of the organization. Volkswagen has worker representation on its board of directors and is 20 percent owned by the state government of Lower Saxony (the "VW law")—an additional layer of stakeholder accountability. And while North American automakers have been closing assembly plants for decades, because VW has labor and government representation on its board it has managed to block hostile takeovers and has not allowed a single VW assembly plant to close in Germany since 1945—and this despite the fact that German manufacturing workers are paid roughly one-quarter more than their North American counterparts.

Another democratizing policy pertaining to labor would see the establishment of sector development councils in strategic areas, comprising representatives from unions, employer associations, government, and colleges, universities, and trades schools. These multi-stakeholder councils could undertake initiatives as simple as long-term skills training programs (to better manage innovation and emerging labor market needs) to initiatives as transformative as the setting of sectoral standards, including minimum standards pertaining to the conditions and compensation of work. Historically, unions provided workers with some degree of control over the labor process in their own workplaces. Sector development councils would provide workers with some degree of control over the evolution of entire industries.

A third transformation would constrain the size and market power of large firms through aggressive antitrust legislation. In the 40 years between 1940 and 1980, M&A activity constituted just 20 percent of investment in fixed assets. In tandem with capital controls, this period was remarkable for its elevated levels of GDP growth and reduced income inequality. In the decades since 1980, large firms have plowed enormous resources into acquiring competitors. The resulting semi-monopolistic market structures and attendant market power concentrates income among large firms. By restricting the oligopolistic drive of M&A, the intention would be to unleash the centrifugal forces of fixed asset investment, which are associated with higher levels of GDP growth, job creation, and an inclusive prosperity.

Early American merger waves tended to be followed by antitrust legislation. American legislators were fearful that centralized corporate authority would harm the public good. The drive for monopoly associated with the first merger wave, for example, led to the Sherman Antitrust Act of 1890, which was instituted to combat the power of large firms. A generation later, the US Congress passed the Clayton Act of 1914, which also made it more difficult to merge for monopoly (Gaughan 2007). Anti-monopolistic policies designed for the 21st century could help diffuse the increasingly centralized corporate power manifest in large firms, which would help accelerate growth and diminish inequality.

The state commitment to full employment in conjunction with a rebuilding of the trade union movement and restrictions on business consolidation are three democratizing policies that would weaken the power of large firms without eliminating the capitalist character of the American economy. There would still be private enterprise, investment for profit, and wage labor, but this basket of policies would make the accumulation of capital compatible with the national goals of widening economic opportunity and an inclusive prosperity.

Appendix

Data Sources, Calculations, and Estimation Techniques

Buy-to-Build Indicator (Figures 1, 5, 13)

To the best of the author's knowledge, internally consistent long-term data are not available for American M&A. The dollar value of all reported M&A comes from MergerStat through WilmerHale LLP (2014, Slide 2) for 2008–13 and from Thomson Securities Financial Data through the software package associated with Gaughan (2007, Figure 2.7) for 2000–7. The estimated dollar value of M&A for prior years came in a series of steps. The first step was to create a unified and rebased series of announced M&A transactions. M&A announcements come from Gaughan (2007, Tables 2.3 and 2.5) for 1963–99. Lamoreaux (2006a, chapter 422; 2006b, chapter 416) supplies M&A transactions in manufacturing and mining for 1919–62 and 1895–1918, respectively. The second step involved multiplying the S&P 500 Composite Price Index (Global Financial Data, Code: GFD_SPXD) by the total number of announced M&A. In the third step, a rebasing number was created so that the total number of M&A could be multiplied by the S&P 500 proxy value. In step four, the resulting number was multiplied by the rebasing number to produce an estimate of the dollar value of M&A from 1895 through 1999. Step five involved creating a unified series for the dollar value of gross private domestic investment in nonresidential structures and equipment by splicing the Bureau of Economic Analysis, Table 1.1.5, from 1929–2013 with a rebased value of Simon Kuznets's (n.d.) estimate of gross fixed capital formation (1895–1928), the latter brought to the author's attention by Francis (2013).

National Accounts (Figures 2–3, 6-8, 10, 14)

Total American corporate assets are the sum of nonfinancial and financial corporate business assets, retrieved from the Federal Reserve (Z1/Z1/FL102000005.A and Z1/Z1/FL792000095.A). Gross domestic product and business expenditure on nonresidential structures and equipment are from the Bureau of Economic Analysis (BEA), Table 1.1.5. National income and (national) net dividends from BEA, Table 1.12. Relevant series were deflated using the consumer price index and an industrial commodities producer price index, retrieved from Global Financial Data (Codes CPUSAM and WPUSAICM). Civilian labor force and total employment from Carter (2006).

Top 100 Firms (Figures 4–7, 9, 13-14, 16)

Data for the top 100 American-listed firms, ranked annually by equity market capitalization, comes from Compustat through Wharton Research Data Services. Variables include common shares outstanding, closing share price, revenue, total assets, acquisitions, pretax profit, aftertax profit, capital expenditures and purchase of common and preferred stock.

Top Income Share (Figures 8–10, 14, 18-19)

Top 1 percent income share (including capital gains), wages and salaries portion of the top 1 percent income share, and the Pareto–Lorenz Coefficient from Piketty and Saez (2007), retrieved from World Top Incomes Database: topincomes.g-mond.parisschoolofeconomics.eu/, accessed December 23, 2014.

Union Density (Figure 10)

To the best of the author's knowledge, a continuous data series is not available for American unionization. Membership data from 1973–2013 are from Hirsch and Macpherson (2003), retrieved from their online database (www.unionstats.com/). Mayer (2004, Table A1, pp. 22–23) supplies membership data from 1930–72. Estimates for 1880–1929 came in a series of steps. The first step was to splice and rebase absolute figures for union membership from the Bureau of Labor Statistics *Handbook of Labor Statistics* (1950) and G. Friedman, "New Estimates of Union Membership: The United States, 1880–1914" *Historical Methods* 32, no. 2 (1999), both retrieved from Rosenbloom (2006a, chapters Ba4783 and Ba4789). The second step was to estimate the American workforce. Sobek (2006, chapter Ba340) provides an absolute figure for each decade beginning in 1850. A decade average rate of growth was imputed to create a complete estimate of the American workforce. In the third step, union membership was divided by the estimated labor force to arrive at a figure for union density.

Strike Activity (Figures 11-12, 18)

Work stoppages include strikes and lockouts. To the best of the author's knowledge, internally consistent long-term data are not available for American work stoppages. The Bureau of Labor Statistics (BLS) tracks labor disputes from 1947 onward using four metrics: number of work stoppages, number of workers involved, days idle, and percent of estimated working time lost. The difficulty with these figures is that the number of work stoppages is restricted to establishments with 1,000 or more employees. Between automation, lean production, and the resulting decline in large establishments, the data will tend to artificially depress strike intensity over recent decades. To remedy this defect, a new strike index was

built. Continuous estimates for the absolute number of (1) work stoppages (from 1881), (2) number of workers involved (from 1881), (3) days idle (from 1927), and (4) percent of estimated working time lost (from 1939), with proper rebasing, was created by fusing the BLS data with data from the Historical Statistics of the United States. With a view to combining the four measures of strike activity into a single supermetric, each series was indexed (the actual value in each year less the series average value divided by the standard deviation). In the resulting four series, a value of 0 means strike activity is at its historic average, with positive and negative values signalling above average and below average strike activity. A simple average of the four indexed series was computed to capture the overall strike trend in America from 1881 to 2013 (with the data gap from 1906 to 1913 interpolated with a straight line). See Bureau of Labor Statistics, Table 1, for data from 1947 to 2013 (www.bls.gov/news.release/wkstp.t01.htm), accessed May 5, 2015. Data on number of work stoppages and workers involved (1881–1905, 1914–81), person-days idle (1927–81), and days idle as a percent of estimated working time (1939–81) from Rosenbloom (2006b, chapters Ba4954-4958).

Class Income and Its Redistribution (Figures 12, 14, 17)

Aggregate Capital-Labor Redistribution Index. National corporate profits (with inventory valuation adjustment and capital consumption allowance) and total compensation of employees from the Bureau of Economic Analysis, Tables 1.12 and 2.1, respectively. *Average Labor-Capital Redistribution Index.* S&P 500 Composite Price Index from Global Financial Data (Code: GFD_SPXD). Average hourly earnings for the years 1850–1940 are for unskilled labor, retrieved from Margo (2006, chapter Ba4218); the years 1940–2013 are for manufacturing workers, retrieved from Global Financial Data (Code: USAHEMANM).

Inflation and Unemployment (Figures 15-17, 19)

Consumer price index from Global Financial Data (Code: CPUSAM). Number of unemployed and total civilian labor force from Carter (2006).

References

Berle, A. A., and G. C. Means. 1968 (1932). *The Modern Corporation and Private Property.* Rev. ed. New York: Harcourt, Brace & World.

Blair, J. M. 1972. *Economic Concentration: Structure, Behavior, and Public Policy*. New York: Harcourt Brace Jovanovich.

Brennan, J. 2012. *A Shrinking Universe: How Concentrated Corporate Power Is Shaping Income Inequality in Canada.* Ottawa: Canadian Centre for Policy Alternatives.

———. 2014. "The Business of Power: Canadian Multinationals in the Postwar Era." Ph.D. diss., York University.

———. 2015. *Ascent of Giants: NAFTA, Corporate Power, and the Growing Income Gap.* Ottawa: Canadian Centre for Policy Alternatives.

Burdekin, R. C., and P. Burkett. 1996. *Distributional Conflict and Inflation: Theoretical and Historical Perspectives*. Houndmills, Basingstoke: Palgrave Macmillan.

Card, D., and J. E. DiNardo. 2002. "Skill Biased Technological Change and Rising Wage Inequality: Some Problems and Puzzles." *Journal of Labor Economics* 20, no. 4 (October): 733–83.

Carter, S. B. 2006. "Labor Force, Employment, and Unemployment: 1890–1990." In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press. Table Ba470-477.

Clarke, T., and R. Bostock. 1997. "Governance in Germany: The Foundations of Corporate Structure?" In K. Keasey, S. Thompson, and M. Wright, eds. *Corporate Governance: Economic, Management and Financial Issues*. New York: Oxford University Press.

Dalziel, P. 1999–2000. "A Post Keynesian Theory of Asset Price Inflation with Endogenous Money." *Journal of Post Keynesian Economics* 22 (2): 227–45.

De Long, J. B., and L. Summers. 1992. "Equipment Investment and Economic Growth: How Strong Is the Nexus?" *Brookings Papers on Economic Activity* 23 (2): 157–211.

Dougherty, C., and D. W. Jorgenson. 1997. "There Is No Silver Bullet: Investment and Growth in the G-7." *National Institute Economic Review*, no. 162 (October): 57–74.

Fix, B. 2015. "Inequality and Capitalist Income." Blog post, April 18. Available at: http://www.capitalaspower.com/forum/viewtopic.php?t=427&p=1147#p1147

Francis, J. A. 2013. "The Buy-to-Build Indicator: New Estimates for Britain and the United States." *Review of Capital as Power* 1 (1): 63–72.

Frydman, C., and D. Jenter. 2010. “CEO Compensation.” NBER Working Paper No. 16585. Cambridge: National Bureau of Economic Research. Accessed May 12, 2015. www.nber.org/papers/w16585.

Gabaix, X., and A. Landier. 2008. “Why Has CEO Pay Increased So Much?” *Quarterly Journal of Economics* 123 (1): 49–100.

Galbraith, J. K. 1952. *American Capitalism: The Concept of Countervailing Power.* Boston: Houghton Mifflin.

Gaughan, P. A. 2007. *Mergers, Acquisitions, and Corporate Restructuring.* 4th ed. Hoboken: John Wiley & Sons.

Hirsch, B. T., and D. A. Macpherson. 2003. “Union Membership and Coverage Database from the Current Population Survey: Note.” *Industrial and Labor Relations Review* 56 (2): 349–54. Series updated by same authors. Data available at: www.unionstats.com/. Accessed May 5, 2015.

Jo, T.-H., and J. F. Henry. 2015. “The Business Enterprise in the Age of Money-Manager Capitalism.” *Journal of Economic Issues* 49 (1): 23–46.

Jorgenson, D. W. 2007. “Information Technology and the G7 Economies.” In E. R. Berndt and C. R. Hulten, eds. *Hard-to-Measure Goods and Services: Essays in Honor of Zvi Griliches*. Chicago: University of Chicago Press.

Kalecki, M. 1971 (1938). “Distribution of National Income.” In *Selected Essays on the Dynamics of the Capitalist Economy, 1933–1970.* Cambridge: Cambridge University Press.

———. 1971 (1943). “Costs and Prices.” In *Selected Essays on the Dynamics of the Capitalist Economy, 1933–1970*. Cambridge: Cambridge University Press.

Krugman, P. R. 2008. “Trade and Wages, Reconsidered.” *Brookings Paper on Economic Activity* (Spring): 103–37.

Kuznets, S. n.d. “Annual Estimates, 1869–1955.” Technical tables underlying series in *Capital in the American Economy: Its Formation and Financing*. Baltimore: Johns Hopkins University. Accessed May 6, 2015. www.nber.org/data-appendix/c1454/appendix.pdf.

Lamoreaux, N. R. 2006a. “Mergers, Acquisitions, and Joint Ventures—Number and Assets: 1919–1979.” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ch422-429.

———. 2006b. “Mergers in Manufacturing and Mining—Entities, Capitalization, and Type: 1895–1930.” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ch416-421.

Lavoie, M. 1992. *Foundations of Post Keynesian Economic Analysis*. Aldershot: Edward Elgar.

———. 2014. *Post-Keynesian Economics: New Foundations*. Northampton: Edward Elgar.

Margo, R. A. 2006. “Index of Money Wages for Unskilled Labor: 1774–1974.” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ba4218.

Mayer, G. 2004. *Union Membership Trends in the United States*. Washington, D.C.: Congressional Research Service. Accessed May 5, 2015. digitalcommons.ilr.cornell.edu/key_workplace/174.

McCarthy, K. J. 2013. “The Business Environment—Mergers and Merger Waves: A Century of Cause and Effect.” In K. J. McCarthy and W. Dolfsma, eds. *Understanding Mergers and Acquisitions in the 21st Century*. London: Palgrave Macmillan.

Means, G. C. 1935. “Price Inflexibility and the Requirements of a Stabilizing Monetary Policy.” *Journal of the American Statistical Association* 30 (190): 401–13.

———. 1983. “Corporate Power in the Marketplace.” *Journal of Law and Economics* 26 (2): 467–85.

Moore, M. P., and P. Ranjan. 2005. “Globalisation vs Skill-biased Technological Change: Implications for Unemployment and Wage Inequality.” *The Economic Journal* 115 (503): 391–422.

Murphy, K. J. 2012. “Executive Compensation: Where We Are, and How We Got There.” In G. Constantinides, M. Harris, and R. Stulz, eds. *Handbook of the Economics of Finance.* Elsevier Science North Holland (forthcoming); Marshall School of Business Working Paper No. FBE 07.12. Accessed May 12, 2015. dx.doi.org/10.2139/ssrn.2041679.

Nitzan J., and S. Bichler. 2009. *Capital as Power: A Study of Order and Creorder.* London: Routledge.

Olson, M. 1982. *The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities.* New Haven: Yale University Press.

Piketty, T., and E. Saez. 2007. “Income and Wage Inequality in the United States, 1913–2002.” In A. B. Atkinson and T. Piketty, eds. *Top Incomes Over the Twentieth Century. A Contrast Between Continental European and English-speaking Countries*, chap. 5. New York: Oxford University Press. Series updated by the same authors.

Peterson, W. C. 1980. “Stagflation and the Crisis of Capitalism.” *Review of Social Economy* 38 (3): 277–87.

———. 1982. “Worker Discontent, Wages, and Stagflation.” *Journal of Economic Issues* 16 (4): 977–84.

Polanyi, K. 2001 (1944). *The Great Transformation: The Political and Economic Origins of Our Time.* 2nd ed. Boston: Beacon Press.

Pollin, R. 2012. *Back to Full Employment.* Boston: The MIT Press.

Smith, A. 1994 (1776). *An Inquiry into the Nature and Causes of the Wealth of Nations*. Edited by Edwin Cannan. New York: Random House.

Ricardo, D. 1973 (1817). *The Principles of Political Economy and Taxation.* Introduction by Donald Winch. Toronto: Dent Dutton.

Rosenberg, S., and T. E. Weisskopf. 1981. “A Conflict Theory Approach to Inflation in the Postwar U.S. Economy.” *American Economic Review* 71 (2): 42–47.

Rosenbloom, J. L. 2006a. “Union Membership: 1880–1999.” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ba4783-4791.

———. 2006b. “Work Stoppages, Workers Involved, Average Duration, and Person-days Idle: 1881–1998.” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ba4954-4964.

Rowthorn, R. E. 1977. “Conflict, Inflation and Money.” *Cambridge Journal of Economics* 1 (3): 215–39.

Samuelson, P. A., and W. D. Nordhaus. 2010. *Economics.* 19th ed. New York: McGraw-Hill.

Sobek, M. 2006. “Labor Force Participation, Employment, and Unemployment, by Sex: 1850–1990 [Census estimates].” In S. B. Carter, S. S. Garter, M. R. Haines, A. L. Olmstead, R. Sutch, and G. Wright, eds. *Historical Statistics of the United States, Earliest Times to the Present: Millennial Edition*. New York: Cambridge University Press, Table Ba340-354.

Stigler, G. 1950. “Monopoly and Oligopoly by Merger.” *American Economic Review* 40 (2): 23–34.

Stiglitz, J. 2015. *Re-writing the Rules of the American Economy: An Agenda for Growth and Shared Prosperity.* New York: W. W. Norton.

Veblen, T. 1908a. “On the Nature of Capital.” *The Quarterly Journal of Economics* 22 (4): 517–42.

———. 1908b. “On the Nature of Capital: Investment, Intangible Assets, and the Pecuniary Magnate.” *The Quarterly Journal of Economics* 23 (1): 104–36.

———. 2004 (1923). *Absentee Ownership and Business Enterprise in Recent Times: The Case of America.* New Brunswick and London: Transaction Publishers.

Weintraub, S. 1978. *Capitalism's Inflation and Unemployment Crisis: Beyond Monetarism and Keynesianism*. London: Addison-Wesley.

———. 1978–79. "The Missing Theory of Wages." *Journal of Post Keynesian Economics* 1 (2): 59–78.

Wilmer Cutler Pickering Hale and Dorr LLP. 2014. *2014 M&A Report.* Accessed May 5, 2015. www.wilmerhale.com/2014MAreport.