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Abstract

A growing number of economists blame the length and severity of the Great Depression on factors that rigidified wage rates, raised production costs, and interfered with the market allocation of labor. The target of their critique is President Franklin Roosevelt's New Deal labor program, which they portray as creating a series of large negative supply shocks through encouragement of unions, minimum wages, unemployment insurance, and other anticompetitive industrial relations practices. The author uses a combination of institutional and Keynesian theory to present the other side of the story. Drawing principally from the works of J. R. Commons and J. M. Keynes, he develops both a spending and productivity rationale for stable wages during the Great Depression and demonstrates that the New Deal's interventionist labor program was on balance necessary and beneficial. He also highlights the neglected macroeconomic dimension of industrial relations theory and policy.

Keywords

Wage Theory, New Deal, macroeconomics

WAGE THEORY, NEW DEAL LABOR POLICY, AND THE GREAT DEPRESSION: WERE GOVERNMENT AND UNIONS TO BLAME?

BRUCE E. KAUFMAN*

A growing number of economists blame the length and severity of the Great Depression on factors that rigidified wage rates, raised production costs, and interfered with the market allocation of labor. The target of their critique is President Franklin Roosevelt's New Deal labor program, which they portray as creating a series of large negative supply shocks through encouragement of unions, minimum wages, unemployment insurance, and other anticompetitive industrial relations practices. The author uses a combination of institutional and Keynesian theory to present the other side of the story. Drawing principally from the works of J. R. Commons and J. M. Keynes, he develops both a spending and a productivity rationale for stable wages during the Great Depression and demonstrates that the New Deal's interventionist labor program was on balance necessary and beneficial. He also highlights the neglected macroeconomic dimension of industrial relations theory and policy.

The plunge of the world economy into crisis from 2008 to 2010 brought with it renewed research and debate on the cause and longevity of its closest historical parallel—the Great Depression of the 1930s. Contemporary economic opinion on the Great Depression varies along a wide spectrum; nonetheless, the drift in the literature is toward a view that argues the depression was made considerably worse by factors that rigidified wage rates, increased labor costs, and interfered with flexible demand/supply (DS) allocation and use of labor resources. The government is targeted for blame, particularly with regard to the New Deal's legislative program fostering greater collective bargaining, a legal minimum wage, and unemployment insurance, but the anticompetitive industrial relations (IR) practices fostered by trade unions and large corporations are also criticized. This line of thought provides powerful ammunition for contemporary economists (e.g., Neumark 2009; Galloway 2010; Mulligan 2010; Thornton 2010) who argue that government initiatives during the most recent crisis—for example, a higher minimum wage, expanded unemployment benefits, extended

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health care coverage, proposed union card check recognition—represent another dismaying example of government ignoring economic principles and repeating policy mistakes.

In this article I present a contrasting point of view built on a combination of institutional and Keynesian economic principles, particularly as contained in the writings of J. R. Commons and J. M. Keynes. My conclusion is that blame focused on government, unions, and IR practices for the debacle of the 1930s is considerably misdirected and one-sided. While I do not examine the most recent economic crisis, a parallel interpretation is certainly apropos.

Contemporary Opinion on the Great Depression

Federal Reserve Bank chair Ben Bernanke quipped that understanding the Great Depression is the “Holy Grail of macroeconomics” (2000: 5). Although the Grail has not been precisely located yet, many economists believe their search has brought them much closer. Parker (2007), for example, narrows the contending explanations to three, the Monetary Hypothesis, the Nonmonetary-Financial Hypothesis, and the Gold Standard Hypothesis. Depression study aficionados among economists are still actively debating the relative role of each; in terms of a general account, however, there is a tendency to synthesize them into one more or less consistent Grail story. As an example, Calomiris (2007) gives this relatively short and succinct consensus summary:

The Depression resulted primarily from poor monetary policy by central banks, including the Federal Reserve, and was perpetuated by a combination of disastrous fixed-exchange-rate policies (which transmitted deflation around the world), protectionism, and the severe problems with the balance sheets of banks and firms. In the United States, added damage was done by the wrong-headed policy responses of the Hoover and Roosevelt administrations, including New Deal policies that raised prices and wages. . . . Whatever the desirability of the New Deal policies from other perspectives, they did not provide an effective boost to the economy. (p. 143)

The roles of labor markets, industrial relations practices, and New Deal labor policies, which earlier were distinctly secondary or peripheral issues in the literature (e.g., Romer 1993), have recently become a particular focus of attention and criticism. The reason for the attention is explained by Nobel laureate Edward Prescott: “The Great Depression and business cycles are similar in that both include variation in output accounted for in large part by variations in labor input to production” (1999: 26). Thus, Prescott is saying that most of the action in explaining the slump, at least in terms of real GDP, is in the labor market. In particular, he shows that the largest source of GDP decline was due to a large decline in average hours worked—interpretable as a large negative productivity shock coming from rigid wages (hence much higher unemployment and lost work hours), new industrial relations practices (e.g., industrial unionism with many strikes), and cost-

raising New Deal labor policies. Prescott states, therefore, “I am led to the view . . . that there must have been a fundamental change in labor market institutions and industrial policies that lowered steady-state, or normal, market hours” (p. 26).

Other economists, particularly those working within a new classical and real business cycle framework, have reached similar conclusions. In “Accounting for the Great Depression,” Chari, Kehoe, and McGrattan (2003) point the finger of blame at frictions in labor and capital markets that introduce distortionary wedges in the price system. Their empirical analysis indicates the most important cause of the downturn and slow recovery was the labor wedge, leading them to conclude, “These poor [labor] policies turn what otherwise would be modest downturns into prolonged depressions” (p. 3). Similarly, Madsen (2004) concludes, “There is a general consensus among economists that adverse nominal demand shocks had severe and long-lasting employment and output effects during the Great Depression because rigid labor markets prevented wages from adjusting to the declining price level” (p. 263).

Another influential voice is Lee Ohanian who asks in the title of a recent article (Ohanian 2009), “What—or Who—Started the Great Depression?” He answers, “Herbert Hoover” (p. 2310) and then later labels Hoover a “New Dealer.” Blaming Hoover is perhaps surprising, given the popular impression that Hoover (a conservative Republican president) followed a mostly orthodox “do-nothing” and “let the market work” policy as the depression deepened. But as Ohanian correctly points out (also see MacKenzie 2010), in certain respects Hoover followed an interventionist course; most particularly, starting quickly in the fall of 1929 and continuing thenceforth he vigorously lobbied employers to maintain wage rates and avoid wage cuts. Hence, as prices dropped real wages increased above the (presumptive) equilibrium level in labor markets, leading to (allegedly) growing job loss and unemployment. According to Ohanian, in the early 1930s firms wanted to cut wage rates but reluctantly refrained because Hoover offered them a *quid pro quo*—he would keep unions at bay if they kept wages up. Thus, Ohanian concludes, “the key to understanding the Depression is understanding and quantifying this labor market distortion” (2009: 2314).

These views on wages and the Great Depression do not represent those of all mainstream economists (e.g., Tobin 1975; Temin 2007; Stiglitz 2010)—nor certainly those in more heterodox circles (e.g., Perelman 2007; Whalen 2011); nonetheless, fundamentalist ideas on the self-correcting nature of capitalist economies that were three to four decades ago widely regarded as on the right-wing fringe have steadily gained ground.¹

¹In his economics textbook, Samuelson (1948) expressed the early postwar Keynesian consensus, “the private economy is not unlike a machine without an effective steering wheel or governor” (p. 412); Krugman and Wells (2009) in their text now tell students, “The economy is self-correcting in the long run” (pp. 339–41).

Commons and Keynes on Macroeconomics and the Great Depression

The alternative perspective on the Great Depression and New Deal I offer here is a melding of ideas from two founding fathers: J. R. Commons who founded American industrial relations and co-founded institutional economics and J. M. Keynes who founded the Keynesian school of macroeconomics.

Commons and Keynes are not often linked in the contemporary economics literature, one being a lesser known American institutional economist and labor expert and the other a world famous English monetary theorist and macroeconomist.² In reality, both not only shared common concerns, interests, and viewpoints on economic matters but carried on a correspondence going back to at least 1925 (Skidelsky 1995: 229).

Two shared principles brought Commons and Keynes together. The first is their mutual concern about unemployment. Both men state that large-scale, persistent unemployment is capitalism's greatest cause of inefficiency and human suffering (e.g., Commons 1923a: 167; Keynes 1936: 372), and they made finding solutions to unemployment both a scholarly and political mission. The second is belief that competition and flexible prices do not provide an effective self-regulating mechanism and therefore the economy may suffer extended slack with no tendency to full employment. For this reason, both Commons and Keynes rooted their macroeconomic theories in the heterodox tradition coming from Malthus (and, earlier, Sismondi) rather than the orthodox line coming from Ricardo since Ricardo accepted Say's Law while Malthus rejected it (Commons 1934: 846; Keynes 1936: 32).

Say's Law, named after early nineteenth-century French economist Jean-Baptiste Say who first popularized the principle, holds that a competitive market economy with flexible prices cannot experience a prolonged glut or excess supply condition in product and labor markets (Kates 1998). The corollary implication is that a market economy has a built-in tendency to return to full employment equilibrium (Thornton 2010).

Commons and Keynes took an historical and evolutionary view of capitalism; in particular, they believed that the institutional structure of economies evolves through distinct stages of development (Crotty 1990; Atkinson and Oleson 1998).³ Commons (1934) maintained, for example, that the mid-

²There is a limited non-IR literature on Commons and Keynes, for example, Atkinson and Oleson (1998), Kates (2008), and Whalen (2008a, 2008b). Rutherford and Desroches (2008) describe the diverse and to some degree divergent institutionalist thought on Keynes in the 1930s. Although mostly unknown today, Commons specialized in monetary economics in the 1920s and was considered an authority on monetary policy (Whalen 1993).

³For example, the aggregate labor supply curve was probably forward-sloped in the pre-Civil War economy because workers had good substitutes for wage-type jobs when demand shocks forced down wage rates (e.g., a move to self-employment in farming or gold mining). In an industrial economy, urban wage employees have few if any substitute sources of labor income and, hence, in the region of subsistence income the labor supply curve changes to negatively sloped and becomes increasingly elastic as workers

nineteenth-century American economy was sufficiently atomistic and competitive that it operated as DS theory and Say's Law predict. But by the 1920s, the economy had transitioned to “managerial capitalism” with a dual economy having a competitive periphery and oligopolistic industrial core. The industrial core, in turn, featured giant corporations, mass production, large fixed capital investments, and well developed internal labor markets (ILMs). The result, popularized by institutionalist Gardner Means in the 1930s (Lee and Samuels 1992), is that DS and flexible prices/wages are substantially displaced by the coordinating forces of management and administration. Thus, Commons (1923c: 116–17) states, “There is no invisible hand about it, no natural equilibrium of forces of nature that augments the national wealth by mere unguided self-interest.” Since a modern economy lacks an effective self-regulating mechanism, Commons maintained government must steer it with a visible hand to stabilize aggregate demand and achieve a “managed equilibrium” (Commons 1934; Whalen 1993, 2008b). Therefore, contra Say's Law, if government stands on the sidelines and lets DS work unimpeded, the result will be grave inefficiency and an implosion in times of crisis.

Keynes also rejected Say's Law and maintained that the aggregate labor market is not self-correcting through flexible wage/price movements (Tobin 1975; Davidson 2007; Levendis 2007).⁴ The conventional interpretation of Keynes, as found in most textbooks and New Keynesian and New Classical macroeconomics (see Riggi 2010), is that he argues markets do not clear on account of *inflexible* prices and wages, due in part to workers' money illusion.⁵

A reading of chapters 2, 19, and 23 of Keynes's *General Theory* (1936) reveals this is not at all his position. In chapter 2 he acknowledges money wages have a large degree of downward rigidity but asserts (p. 10) that *even if* money and real wages are *perfectly flexible*, the labor market may not clear

and family members provide whatever hours are required for survival (Dessing 2002). A purpose of a modern welfare state is to put a floor under family income and thus prevent a potentially de-stabilizing wage decline and labor supply increase; new classical macroeconomists, on the other hand, explain the high unemployment of the 1930s as a voluntary intertemporal substitution of leisure for work along a forward-sloped labor supply curve in response to temporarily lower wages (e.g., Lucas and Rapping 1969).

⁴Keynes made a second fundamental revision to orthodox theory. In the neoclassical model the real wage determines the level of employment via the aggregate labor demand (marginal product) curve, hence higher wages cause unemployment; Keynes and post-Keynesians argue that employment is determined in the goods market by effective demand and this then determines the real wage via the marginal product schedule (not itself a demand curve). A higher real wage can increase employment, therefore, if it sufficiently increases spending. Other features (e.g., a minimum staffing level) make the wage/employment function upward sloping (Lavoie 1992).

⁵Hansen (1923) suggests that what looks like workers' irrational money illusion is actually rational behavior in response to weak bargaining power: “The wage-earner is more concerned with the price of his commodity than with the total volume of his sales. . . . The loss of employment he conceives of as temporary; the loss of his established wage he believes is a permanent loss” (p. 40). For example, at International Harvester wages were cut in 1921–22 and never recovered their 1920 level for the rest of the decade (Ozanne 1968).

and thus continue to exhibit persistent involuntary unemployment.⁶ Thus, wage cutting as a cure for unemployment is not only impractical but also fallacious (Tobin 1975; Levendis 2007). One reason Keynes gives is that the firm's hiring decision is made on the basis of the real wage but workers can only agree to a cut in the money wage—a cut that will likely precipitate a fall in prices and thus leave the real wage the same or even higher, as happened in the early 1930s (Mitchell 1986, 1993). A second reason he gives is that at the aggregate level a cut in money and real wages affects firms' labor demand in offsetting directions; that is, a lower wage reduces the cost of production and increases employment, but it also reduces household income and spending and therefore leads to a contraction of employment. Then, in chapter 19 Keynes considers the role of wage flexibility in more detail and concludes, "To suppose that a flexible wage policy is a right and proper adjunct of a system which on the whole is one of laissez-faire, is the opposite of the truth" (p. 269), and therefore "the maintenance of a stable general level of wages is, on a balance of considerations, the most advisable policy" (p. 270). In chapter 23 Keynes acknowledges that this position puts him among the "brave army of heretics" (p. 371).

Commons came to the same conclusion as Keynes on the desirability of a stable wage/price policy. Wage/price stabilization, according to Commons (1921, 1923a, 1923c), is made necessary by several factors, including: (1) large wage and price changes tend to amplify (rather than dampen) business cycles, (2) large fixed costs of modern industry create pressures for large and cascading price/wage declines in periods of recession, and (3) workers demand higher wage rates and other forms of protection to offset wage/employment variability.

Keynes argued that the fundamental defect of wage deflation at a national level is that it leads to reduced production and employment (i.e., income effects dominate substitution effects)—the opposite of what a self-adjusting economic system is supposed to do. He focused primarily on the negative effect of wage cuts on *spending and aggregate demand*. Commons accepted the spending argument; being an IR labor economist, however, he emphasized a second channel through which wage deflation hurts the economy. This is the negative impact that wage cuts, and market volatility in general, have on *productivity and aggregate supply*. In effect, Commons points to another general equilibrium channel ignored in standard DS accounts of the depression but which is central to an IR theory of the employment relationship; that is, the link between wage rates and the performance of firms' production systems (Kaufman 2010a).

The Walrasian theory underlying Say's Law treats labor as a *commodity* and the production function as a purely *technological relationship*; hence, wage/

⁶This interpretation of Keynes is supported by Samuelson (1946) who states, "Keynes denies that there is an *Invisible Hand*. . . . This is the sum and substance of his heresy" (p. 321, emphasis in original). Keynes's heresy rests on the *fallacy of composition*; i.e., the predicted effect of a wage cut in partial equilibrium is different (perhaps the reverse) from that in general equilibrium.

price variability and management treatment do not affect the amount of output yielded per unit of labor input. Commons (1921, 1923a, 1923c) rejected this part of neoclassical theory for the following six reasons:

1. Because labor is human, the amount of labor services provided depends on psychological factors that influence work motivation, such as morale, fairness, and expected gain; ups and downs in employment and wages undercut work motivation by destroying morale, fostering perceptions of unfairness and inequity, and undercutting the prospect of long-term gain from hard work and cooperation.⁷
2. Labor market volatility also undercuts the incentive of firms and workers to invest in human capital because the returns are reduced and made less certain by higher incidence of job disruption.
3. Workers react to market volatility by seeking a variety of protective/defensive stratagems harmful to productivity, such as stretching out the work, work rule restrictions, and trade unions.⁸
4. Unstable markets undercut the willingness of firms to invest in high-road employment systems and high-performance work practices because these require considerable fixed investment cost with relatively long-term returns.
5. Unemployment and insecurity reduce the quality of the nation's labor input, such as by eroding people's work ethic and personal character, and they create costly social pathologies (e.g., alcoholism, crime, homelessness).
6. High performance production is promoted by a cooperative and unitarist employment relationship in which both managers and employees work together to promote the long-term success of the company—an ethos that a short-term and uncertain market-mediated relationship quickly turns into an adversarial Prisoner's Dilemma employment relationship with attendant low trust, low productivity, high conflict, and opportunistic rent-seeking behavior (Miller 1991; Moriguchi 2005).⁹

⁷Commons (1934: 5) makes property rights the foundation of institutional economics; looked at this way, a defect of a DS type employment relationship is that the worker has no stable property right in a job and hence no reason to do more than the short-term minimum to keep it. But, as Slichter (1928) noted, "Stabilized employment . . . transforms the entire attitude of the wage-earner toward his job. The job . . . becomes a highly valued piece of property. . . . This fact that he now has something worth keeping produces radical changes in his willingness to be efficient" (p. 185). This locates a critical weak spot in orthodox labor theory, that is, its efficiency properties depend on complete contracts and perfectly defined property rights; but labor has neither.

⁸Business writer Harry Tipper (1922: 879) states, "The working of this law of supply and demand for 400 years in the industrial system has increased the number of adherents to workers' organizations from a few hundred to some thirty million in various countries, so that it is not likely that the workings of this law will reduce either the number or the strength of such organizations." It is then instructive to observe that in 1933 the first industries to massively organize under the New Deal were coal, textiles, and apparel—all highly competitive (Vittoz 1987).

⁹Shidle (1920) explains how to use the IR principle of stable wages to avoid a Prisoner's Dilemma: "[T]he firms which take this opportunity to play more than fair with their workmen, when the situation

Industrial Relations Theory and Practice in the New Era

Both Keynes and Commons concluded that the advanced industrial countries of the 1920s had entered into an era requiring stabilization of markets. The reason was the advent of modern mass production methods and associated employment systems. This historical development is mostly neglected by proponents of a flexible wage policy but prominently figures in the case for stable wages.

In the 1920s America experienced a decade of industrial growth and employment relations transformation so profound and path-breaking that delegations of visitors from around the world came to see it firsthand (Kaufman 2004). Labor economist Paul Douglas (1928) remarked, "We are at present overrun with a large number of foreign visitors who are seeking the secret of our prosperity" (p. 28). The name most associated with this transformation was Henry Ford; a second oft-mentioned name was Frederick Taylor.

In the early 1910s Henry Ford was a relatively unknown owner of a small-sized auto assembly plant in Detroit. His factory used the traditional decentralized hire-and-fire and foreman-in-control employment system then prevalent (Jacoby 1985; Kaufman 2008). In 1913, however, Ford caught national attention when he introduced the first integrated, large-scale assembly line. The production time for a new car fell from twelve and one-half hours to one and one-half hours.

Although the assembly line allowed Ford to dramatically lower prices and yet make more profit on much expanded volume, he soon discovered another part of his operations that needed major innovation and restructuring. This was his employment system (Meyer 1981). The assembly line production method was highly efficient but depended on continuous operation, seamless integration of tasks, and workers with considerable endurance and tolerance for fast-paced and highly specialized, monotonous jobs. Interruption at any point threatened to bring the entire factory to a standstill and, with a burden of large fixed costs, this would soon decimate profit. This was exactly the situation Ford confronted because of labor problems. Turnover at Ford's mushroomed to 370% on an annual basis; absenteeism on Mondays was typically over 10%, and foremen had to scramble to hire hundreds of temporary workers.

Ford's solution to his labor problem was to completely revamp the employment system (Meyer 1981; Kaufman 2010b). His most famous action was to nearly double the rate of pay to a minimum of \$5.00 a day (from around \$2.50), a move that earned him international celebrity status. But Ford did far more than simply raise wages. He also created an integrated and highly formalized human resource management function with a centralized employment department, job/wage classification system, training program, extensive welfare (benefit) programs, replacement of employment-

is such that they might 'get away with things' . . . will later find themselves well equipped with the loyalty and enthusiasm of their entire force if the pendulum swings back again" (p. 370).

at-will with termination-for-cause, and a grievance/mediation committee. A company historian writes, “Thus, the Ford Motor Company, which in 1911 had no labor policy at all, possessed three years later the most advanced labor policy in the world” (Nevins 1954: 541).

The industrial relations innovations at Ford spread to many other companies in the period from 1918 to 1929. Labor economist W. Jett Lauck (1929) observed in this regard, “There is another great change going on in thousands of places scattered all over the country, namely the acceptance of cooperative management” (p. 75). Considerable diversity existed among companies in terms of breadth and depth of new employment practices, but the vanguard—popularly called welfare capitalist employers and accounting for between 15% and 25% of industrial employment—constructed a transformed employment system with a formalized personnel department, array of employee benefit programs, training programs, job security and promote-from-within provisions, and employee representation plan (Bernstein 1960). The epicenter of the new industrial relations movement was the ten companies that comprised the Special Conference Committee (SCC). The SCC was a group that met behind the scenes to promote progressive but non-union IR practices; it was financially supported by John D. Rockefeller Jr. and included such major corporations as General Electric, Goodyear, International Harvester, and Standard Oil of New Jersey (Jacoby 1985; Kaufman 2003a).

Both the academic (Commons-centered) and business (Rockefeller-centered) wings of early IR advocated a strategy in which companies (and nations) obtain competitive advantage using a transformed employment model that emphasizes cooperation, mutual gain, and employee commitment (Kaufman 2003b, 2003c). Commons (1919) called this the “goodwill” model, and he and others (King 1918; Balderston 1935; Hicks 1941) enumerated specific IR practices that accompany it, such as above-market wages, job security, and participation/voice mechanisms. These new IR practices involved considerable cost, transformed labor from a largely variable to a semi-fixed cost, and by creating formal ILMs, greatly reduced the influence of external market forces on terms and conditions of employment. The companies believed, however, that gaining higher productivity, greater worker loyalty, and reduced conflict and likelihood of unionization more than offset the costs. Reflecting these new ideas, Edward Cowdrick, secretary of the SCC, observed, “In recent years there has been a distinct trend away from the idea that labor is bought and sold, and toward a conception of employment as a lifetime relationship” (1930: 47).¹⁰ These ideas resurfaced in the 1970s and

¹⁰Also illustrative of the change in employment/wage philosophy is practice in the steel industry. The *Iron Trade Review* (1/5/22: 10) declared in early 1922 (a time of depression), “Great progress has been made in liquidating wages in the iron and steel industry. The hourly common labor rate paid by the United States Steel Corporation today is 30 cents, as compared to . . . the peak Feb. 1, 1920 at 50.6 cents.” A decade later James Farrell, president of U.S. Steel, declared, “Wages in the steel industry are not coming down—you can count on that” (*Literary Digest*, 11/8/30: 11). If unions were the cause of this strategic shift, the order would be reversed (unions in steel greatly weakened over the 1920s).

1980s as part of the commitment, high involvement, and high performance human resource paradigm (Kochan, Katz, and McKersie 1986; Walton 1986; Lawler 1992). Thus, while DS economists tout the advantages of flexible wages, employers then and now who run high performance firms know such a policy is inimical to cooperative employer-employee relations and profit-making.

Wage Theory in the New Era

In his *Theory of Unemployment* (1933) Keynes's Cambridge University colleague Arthur Pigou reiterated the case for the orthodox proposition that unemployment in the labor market is a sign that real wages are too high (i.e., workers have priced themselves out of the market) and that a cut in money wages is one way to restore full employment equilibrium. Keynes portrayed Pigou's position as the exemplar statement of orthodox doctrine and juxtaposed his *General Theory* as a revolutionary denial of it. What Keynes neglected to acknowledge was that a significant portion of American economists and industrial practitioners had abandoned the DS theory of wages and deflationist strategy toward unemployment a decade earlier.¹¹

A detailed account of the orthodox and emergent institutional theory of wages, as seen in America from the vantage point of the 1920s, is provided by Lauck in *The New Industrial Revolution and Wages* (1929).¹² Regarding neo-classical DS theory, Lauck states, "Labor's value was generally looked upon and determined in the same way as that of purely physical commodities, such as wheat, coal, iron, textiles, and steel products" (p. 7). He goes on to say,

The free play of the forces of supply and demand . . . in fixing rates of pay of industrial workers, was formerly looked upon as an expression of the so-called immutable laws of economics which it would be almost sacrilegious to attack. It would be as futile, it was assumed, to play with the forces of supply and demand as it would be to attempt to mitigate the operation of the law of gravity. (p. 271)

Lauck then describes the transformation in wage theory in the 1920s. He states, "Within a few short years, however, this more-than-a-century-old theory has been cast aside. It has been recognized that the human element in production should not be purchased on the same basis as raw materials or capital equipment" (p. 271).¹³ This new view, in turn, came from recogni-

¹¹Davis (1971) documents that many American economists also favored deficit spending in times of depression; Mitchell (1986) describes the diverse and contradictory views held at this time on wages and unemployment.

¹²Modern theories of wage rigidity are reviewed in Groshen and Schweitzer (1997) and Bewley (1999). Lauck was a well-known labor economist and social reformer with academic (e.g., Chicago) and union ties.

¹³The abandonment that competitive wage theory suffered in the 1920s is revealed in the results of a written survey in 1922 of well-known general economists (e.g., Irving Fisher, Frank Taussig, Allyn Young, Thomas Carver), of whom Commons was one, as reported in the *Survey* (3/11/22: 929). The anonymous author states, "Four [respondents] believed the operation of supply and demand in an open labor market would be sufficient to secure the wage-worker his share of the product; fourteen felt that workers

tion of the need to stabilize spending (Keynes) and the need to stabilize industry (Commons). On the former, Lauck states:

It was the effort to revive the prostrated industry and trade of the country [from the depression of 1920–1922] that finally led to the new economic regime through which the country has been passing since the year of 1923. Up to the beginning of that year, a policy of wage deflation and general reduction in costs had been adopted in the attempt to revivify trade and industry and place the country again on a prosperous basis. This procedure was unsuccessful. It was then supplanted by a radical change in constructive attitude. (p. 2)

On the latter Lauck observes:

Stability and regularity of industry mean more to the efficiency of production and therefore more to the rapid accumulation of wealth than any other one thing. And it is in this direction that the greatest strides have been made in the last half dozen years. . . . But higher wages have contributed most of all. They have forestalled strikes, reduced the labor turnover, encouraged employees to more effective work, stimulated loyalty and interest in the business, with the general result of far greater continuity, stability, and therefore, efficiency in industry than ever before. (p. 210–11, italics in original omitted to preserve clarity)

Who does Lauck cite as major contributors to the new wage theory of the 1920s? He shows that a long line of economists, including Adam Smith, John Stuart Mill, and Alfred Marshall, promoted a policy of high wages. Lauck, however, gives primary credit to two non-academic people. One is Henry Ford, who Lauck describes as “the pioneer of the new era as to wage theories” (p. 168); the other is Secretary of Commerce (and later president) Herbert Hoover who Lauck (p. 79) claims precipitated the turning point in the wage revolution in early 1923 with a widely cited speech arguing that economic growth and full employment are promoted by higher wages, not lower wages.

Lauck identifies three distinct components of New Era wage theory. They are summarized below. He omits a fourth important component of wage theory (since it was widely known well back into the nineteenth century) which is also presented here since it provided a central rationale for the New Deal labor program and was subscribed to by both Commons and Keynes.

Living Wage

One component of New Era wage theory was the contention that society should set a floor in the labor market so that wages—or more generally living standards—cannot go below the subsistence level (where subsistence is in part contingent on the historical era and national culture). This subsistence level is called the “living wage” (see Glickman 1997; Stabile 2008).

The living wage rests in part on an ethical and normative argument: That is, although it is socially acceptable for machines to be junked and land to

cannot, under modern conditions, secure their full competitive share without collective bargaining; one was doubtful.”

be abandoned if their respective DS prices do not cover their costs, it is not acceptable in a civilized nation to allow the labor input (including dependent spouses and children—the future workforce) to be similarly scrapped and abandoned due to inadequate wages in the labor market. Likewise, it is socially legitimate to put machines and land to work at whatever task will cover their cost, but it is illegitimate to have men and women forced into sweatshops, robbery, or prostitution to get the bare necessities of life.

The living wage proposition also has several economic and efficiency rationales. For example, a principle of orthodox economics is that the price consumers pay for a good or service should cover all costs of production. If the market wage is less than the living wage, however, this condition is violated and the unpaid portion of labor cost—particularly fixed labor costs, such as minimum health care, saving for old age, adequate food for children—are at least in part passed on to third parties as an externality-like social cost (see Stabile 1993, 2008; Prasch 2005).¹⁴ Another possibility is that the social costs of labor remain partially unpaid; then, however, the nation experiences deterioration in the quantity and quality of its human capital. Given that a worker has a potential productive work life of three to four decades, even a short period drop in wages below the subsistence level (with attendant malnutrition, illness, etc.) may have very harmful long-run consequences for the nation's labor supply. Finally, below-subsistence wages may well precipitate considerable labor conflict and lost production. Capital and land may not protest if they get below-subsistence payment, but human workers and their families certainly will, with adverse consequences not only for the economy but even for the political order and survival of capitalism.

Productive Efficiency Wage

Lauck's second component of New Era wage theory is the "productive efficiency" wage. The central idea is that paying a higher-than-market wage, or refraining from cutting wages, may actually generate greater profit for firms because of reduced turnover, greater work effort, stronger employee loyalty and morale, and a stimulus to innovation.¹⁵ These ideas have been recaptured and formalized in recent years in various versions of efficiency wage theory (Shapiro and Stiglitz 1984; Akerlof and Yellen 1990).

¹⁴Industry that does not continually pay a living wage is parasitic since it survives and grows off of a cost subsidy from labor. To prevent this, Commons argues that social cost "must be assumed by industry as one of the inevitable overhead costs of doing business" (Lewisohn, Draper, Commons, and Lescohier 1925: 153). Firm payments into an unemployment insurance fund are one method to accomplish this; a minimum wage is another (Kaufman 2010c).

¹⁵On wage cutting, an employer states: "Usually, the first place to start cutting is on wages. That was our last step. . . . Cutting wages first is the easy road—to nowhere. For the result is the worker's feeling that he has been treated unfairly—which makes him sufficiently inefficient to undo the possible savings on the cost of production" (Johnson 1921: 681). On the link between wages and labor efficiency, another writer states: "As an employer, I would always make the basic wage higher than the current rate in the district, not from any spirit of philanthropy but because of another great principle. Quality, up to a certain point, increases faster than cost" (Emerson 1922: 402).

Lower productivity and higher costs under the DS wage system come from a variety of sources. Before WWI, for example, many factories had annual employee turnover rates of 200% to 400%, and these created substantial hiring, training, and separation costs; paying above-market wage rates, on the other hand, often reduced turnover by several multiples. Obtaining a stabilized workforce became particularly important after WWI with the widespread adoption of mass production, a system with large interdependencies in which, therefore, poorly trained or missing labor can cause costly interruptions.

Employers also came to appreciate the importance of employee morale, loyalty, and cooperation. They witnessed how the threat of a common foreign enemy and the surge of national patriotism engendered by WWI created a psychological willingness on the part of workers to go all out to win the production battle (Commons 1919; Kaufman 2008). In the 1920s, after the war threat ended, employers sought to replace the energizing effect of national patriotism with company patriotism. This goal is impossible, however, with the commodity DS model; hence, employers turned to a high performance employment model where ILMs partially replace ELMs (external labor markets) and employee loyalty and motivation are energized through mutual gain practices such as job security, in-house promotion, extensive welfare benefits, and fair treatment and opportunities for voice (Solow 1990; Moriguchi 2005).¹⁶ A core element of this new ILM model was another mutual-gain practice—fair, stable, and rising wages.

Yet a third source of efficiency and productivity gains from higher wages comes from new technology, additional capital investment, and the inducement upon management to find other areas of cost saving. The DS model of labor suggests that above-equilibrium wages lead to a misallocation of resources and hence an inefficient production mix. But, in New Era thinking, the true route to national prosperity comes not from low wages but from encouraging human enterprise and innovation. High and rising wages—up to a point and not overdone—accomplish this by stimulating employers to develop new products and new technologies, search out improved organizational and managerial practices, and invest in the most modern machinery, production methods, and employee skills. The positive human-created dynamic efficiency effect of higher wages, therefore, may dominate the negative static allocation effect (Slichter 1928).

Mass Consumption Wage

A third dimension of the new wage theory of the 1920s discussed by Lauck focuses on workers as consumers and the role of wages as a determinant of aggregate spending. Traditional DS theory draws attention to wages as a cost

¹⁶Lauck (1929) captures the unique motivational aspect of labor relative to other inanimate factor inputs with the observation, “You can buy an adding machine but you must get cooperation from an accountant” (p. 90).

factor and suggests lower wages promote prosperity by making possible lower production cost and product prices, increased sales to domestic and foreign buyers, and greater satisfaction of consumer wants. The effect of a lower wage (or reduced regulation), *ceteris paribus*, can be depicted diagrammatically as a rightward shift of a short-run aggregate supply curve along a downward-sloping aggregate demand curve, yielding a win-win outcome of higher GDP and a lower price level. New Era wage theory, on the other hand, argues just the reverse; that is, that prosperity is promoted by high and rising wages and that this works through positive effects on both the demand and supply sides of the economy (that is, both demand and supply curves shift rightward with higher wages).

In effect, the new wage theory identifies two virtuous circles from higher wages that the orthodox theory neglects. The first virtuous circle of higher wages is straightforward. The largest source of household income is labor earnings; hence, a higher wage—in conjunction with an inelastic labor demand curve—increases the national wage bill and gives households more income to spend on the products of industry. This consideration—promoting more consumer spending—had not hitherto been a significant concern, but the advent of mass production and the emergence of a middle-class consumer society drew attention to the necessity of keeping spending growing apace. Employers realized that as a class they had a significant self-interest in keeping wages high and rising because, absent a balanced increase in spending, the economic system would tend toward overproduction and stagnation.

The second virtuous circle was most famously articulated by Henry Ford and was then picked up by many others (Meyer 1981). Ford argued that new production technologies, advances in managerial science, and the integration of the nation into a single market had greatly increased the efficient scale of production for most manufacturers. Thus, high and rising wages not only promote higher spending on the demand side but, by doing so, also allow manufacturers to expand output and realize additional cost savings from economies of scale. The virtuous circle, therefore, begins when higher wages not only expand consumers' ability to buy more goods and services but also promote higher volume production, economies of scale, higher labor productivity, and lower product prices. Money wages increase, but real wages increase even more with the fall in prices while companies also make more profit from higher volume and lower unit cost.¹⁷ Diagram-

¹⁷Regarding wages and consumer spending, Ford clearly grasped the multiplier ("ripple") principle per his statement, "It is an ever widening circle of buying and paying a high wage has the same effect as throwing a stone into a still pond." Ford also noted that wages needed to be increased in line with productivity growth to maintain a DS balance: "If an employer does not share prosperity with those who make him prosperous, then pretty soon there will be no prosperity to share" (Douglas 1928: 679). Douglas (*ibid.*) also notes the free rider defect in Ford's wage theory, stating: "In the main, therefore, it would be suicidal for individual businesses or industries to increase wages in the hope that they will thereby create an appreciably larger market for their product. Other industries would profit . . . whereas the group that increased wages would suffer." He then draws out the policy conclusion that Ford and other

matically, assuming the cost savings from scale economies and other efficiencies more than outweigh the higher payroll costs, higher wages not only shift the aggregate demand curve rightward but also shift the aggregate supply curve rightward.

Wages and Destructive Competition

An idea going back to Sismondi (Sismondi 1819; Lutz 1999) is that in recession and depression situations wage cuts may not restore a demand-supply equilibrium but, instead, precipitate a destabilizing downward wage-price spiral or, in modern terms, a race to the bottom. A similar if more gradual process happens when the extension of markets and development of cheaper production methods puts wages under substantial downward pressure (Commons 1909). Firms and workers experience a significant grinding down of wages and prices as destructive and cutthroat competition is unleashed by the struggle for survival, and bankruptcies and poverty are left in its wake. A method to forestall destructive competition is to put a floor under the wage structure, such as through industry-wide collective bargaining or a minimum wage law.

The tendency of wages and prices to follow each other downward in a competitive market situation was well recognized in the 1920s and 1930s. For an example, an article in *Business Week* (4/11/31: 5) stated, "It is pointed out that that wage cutting, like price cutting, acts like a snowball. The farther it goes the bigger it gets and the harder it is to stop." Of course, in orthodox theory price and wage cuts are supposed to generate an increase in demand; in actual practice, however, the reverse can happen. A writer in *Iron Age* (8/6/31: 363) observed, for example, that in normal times lower prices stimulate demand but in recessions and depressions, "price reductions are more likely to discourage large-scale buying than to bring it about. While prices are falling many buyers hold off entirely . . . with the hope that they may be able to fill their needs later at even lower levels." Another executive stated, "When prices fall, buyers withdraw from the market" (*Literary Digest* 6/13/31: 42). The same behavior ripples into labor markets.

Wage cutting can transition from a market correction to destructive competition when the supply of the good or service involves large fixed costs (both absolutely and relative to variable costs) and involves one or more immobile resources. Rate wars on railroads are a late nineteenth-century example. They occurred because in recessions and depressions large fixed costs and the immobility of the track and roadbed led companies to drasti-

New Era industrialists were strenuously trying to avoid and which in turn provided a major reason Douglas and most other institutional economists supported the New Deal labor program. He states, "[Ford] argument therefore fundamentally implies that either some employers should sacrifice themselves for the benefit of industry as a whole. . . . or that trade-union pressure and government enactment should be employed to increase the wage scale" (pp. 680–81). Another writer (*New Republic* 12/4/29: 30) similarly concluded, "An essential instrumentality to carry out the [Henry] Ford policy nationally is a strong labor movement."

cally bid down prices in an effort to bring in additional revenue, and this led to huge losses and frequent bankruptcies. One response was to put a floor under rates through regulation by the Interstate Commerce Commission.

The example of destructive competition that drew the most attention in the 1920s was the bituminous coal industry, frequently labeled a “sick industry” (Bernstein 1960). Plagued with overcapacity and shrinking demand, operators continually shaved prices and then looked for corresponding economies in production. Even when companies went bankrupt, the mines often continued to operate under new owners, who bought the properties at distress sale prices, cut wages, and for a short time at least earned a profit (Vittoz 1987). Since labor was the largest variable cost component in mining, downward pressure on prices quickly spread into downward pressure on wages and conditions. During the prosperous 1920s coal miners could escape the downward spiral by leaving the industry for other employments (not costless, however, given mobility constraints, lack of financial resources, and industry-specific skills); after the depression began, however, neither coal miners nor workers across industrial America had an escape option. Hence, the only long-run floor under the wage-price structure is the subsistence wage (i.e., if labor’s survival costs are not covered, labor supply eventually shrinks and the wage rises back to subsistence) or revolution. Faced with this lose-lose situation, a coal operator declared in 1931, “the time has come when operators will have to seriously consider whether it is better to operate with a well-regulated Union” or to continue competing “with a lot of price-cutting, wage cutting operators” which does not solve the oversupply problem but “fills the mines with Communists” (quoted in Vittoz 1987: 64).¹⁸

Wage Behavior in the New Era and Great Depression

The emergence of the field of industrial relations in 1919–20 signaled a new approach to the employment relationship and management of labor. Instead of a commodity-like hired hand, labor was now to be treated as a human resource partially insulated from short-run demand and supply pressures. The primary purpose was not altruism or union avoidance, since union density fell sharply over the 1920s, and the mass production industries were never seriously threatened; rather, the primary reasons were enhanced efficiency and profit.

Nonetheless, the extent to which the principles of the new wage theory were actually implemented remains a question. Several sources of evidence suggest wage behavior did undergo a structural shift after 1921, albeit more so in certain respects than others.

¹⁸In the same vein, an anonymous writer states in “Wages Cutting: A Vicious Circle” (*New Republic* [January 5, 1921, pp. 158–59]), “these vast movements of wages and prices . . . quite beyond control by human effort . . . [are] the hope and expectation of the Socialists.”

In *Wages in Theory and Practice* (1968), Robert Ozanne provides data on the money and real wage at the McCormick Works of the International Harvester (I-H) Company for the years from 1849 to 1960, along with money and real wages in the U.S. manufacturing sector. Labor markets were apparently an approximation of a competitive commodity market in the period from 1860 to 1890, and this is reflected in the significant up and down movement of wages (also see Hanes and James 2003). Starting in the 1890s annual wage variation was smaller, wage cuts were fewer and shallower, and annual wage changes started to exhibit a modest upward asymmetry. Moving to the 1920s and 1930s, Ozanne's data reveal that money wage rates at I-H declined in both the 1920–22 and 1929–33 downturns but the wage cuts were deeper and faster in the former. Also, the real wage at I-H fell in the 1920–22 depression but increased each year between 1929 and 1933 (indicating greater proportional rigidity in money wages). Also relevant is the fact that from 1923 to 1929 average hourly earnings in both the U.S. manufacturing sector and at I-H moved upward (8.4% and 7.0%, respectively), even as the price level was essentially flat (thus increasing real wages and purchasing power). Closer examination reveals, however, that in the case of I-H (and also the entire steel industry) the base wage rate actually remained unchanged—indicating that the rise in hourly earnings came from compositional shifts, increased incentive earnings, changes in overtime earnings, etc., and suggesting these employers were *not* increasing money wages in a manner consistent with high wage and mass consumption doctrines.

A similar picture is painted both by people writing at the time of the Great Depression and by contemporary economists looking back on the situation. For example, an article published in the finance periodical *Bradstreet's Weekly* observed:

Within a few months after production definitely turned down in 1920, wage rates were sharply reduced. Altogether, labor costs were cut 40 percent. . . . Since 1924, and up to recently, wage rates have held level, and, if anything, moved slightly higher. . . . With the beginning of the [current] depression . . . more than a year after production began its decline did wage-cutting become at all noticeable. . . . Altogether, wage rates have only fallen 20 percent. (9/3/32: 1121)

Contemporary statistical studies of wage behavior in the 1920s and 1930s found the same pattern. O'Brien (1989), for example, used the Cagan-Sachs measure of wage flexibility to conclude that “money wages were only about one-tenth as flexible after the mid-1920s as before.”

The evidence thus far clearly suggests that a structural shift during the New Era did affect at least one part of the wage determination process. Employers were noticeably more reluctant to *reduce* wages in response to slack markets and, if forced to cut, endeavored to minimize the extent (also see Mitchell 1985). Contemporary observers (e.g., Raymond 1930) concluded, however, that much of the talk about *raising* wages to promote consumer purchasing power spending was empty rhetoric; the evidence cited here supports this proposition.

With regard to wage behavior in the early 1930s, the structural shift is pronounced. After two years of depression, the steel industry was operating at less than one-third capacity, and red ink was starting to gush. Yet the companies held the line on wage rates. Labor historian David Brody (1980) concludes that if the depression had ended in 1931 the welfare capitalist employers would have been lauded for their progressive employment practices and humane treatment of labor. As it was, even the mightiest corporations finally succumbed to wage cutting—perhaps seen at the time by economists as a triumph of demand/supply and sound economics but viewed by business people as “a defeat for modern management” (*Business Week* (6/6/31: 52) and the beginning of a disorderly retreat to a more primitive and less productive economy. The depression did not end in 1931 but worsened and hit bottom only in March 1933. O’Brien (1989) reports in his study that during the first seventeen months of the Great Depression, wage rates declined by only about 2%, and one might be tempted to conclude that the New Era structural shift in wage determination was successfully holding the line on wage reductions. But then O’Brien observes that in the final eighteen months of the downturn, wage rates declined by more than 25%.

The defining moment came in September 1931 when the market forces of deflation finally forced U.S. Steel—the focal point of the industrial wage structure—to announce a 10% wage cut. Other steel firms announced identical pay cuts the same day, and soon copper, auto, and tire companies followed suit. Wage cutting rapidly spread across the labor market; then later in 1932 U.S. Steel announced further large cuts (e.g., 15%), setting off more rounds of reductions in a worsening downward spiral.

Opinion was sharply divided on the wisdom and final effects of the wage cuts. Pressure for wage cuts, according to one business periodical (*Iron Age*, 6/18/32, p. 1998), came primarily from “bankers and theoretical economists,” and they reacted favorably. So too did the stock market, which rose on the announcement of the first steel wage cut. On the other side of this debate were many people, including large segments of the nonfinancial business community, who said the wage cuts would only worsen the slump and further embitter employment relations. For example, *Business Week* editorialized:

To risk satisfactory employee relationships, maintained only with considerable difficulty under present conditions, for a wage cut which can have only a minor effect upon costs at the best and is just as likely to increase them as to lower them appears to many managers with modern views on employee relationships a gamble against reasonable odds. (10/7/32: 6)

The editorial writer goes on to add in the next sentence, “But if business improves, they [the skeptics of wage reduction] are answered.”

Hoover, FDR, and the New Deal Labor Program

It is instructive to note that, in fact, the rolling series of wage reductions were followed by another year and one-half of deepening depression—

directly opposite the predictions of DS theory. It appeared, therefore, that competitive theory was given its chance to work and clearly failed.¹⁹ Although a growing number of economists blame Hoover, Roosevelt, and the New Deal for the severity and length of the Great Depression, an examination of Commons and Keynes and the New Era institutional wage theory provides the theoretical foundation for a rebuttal and counterargument.

Ohanian (2009) and like-minded economists claim both Hoover and FDR practiced bad economic policy and made the downturn much worse by trying to maintain wage rates. From their perspective, a labor market is like every other market, and if supply exceeds demand the wage rate needs to fall until equilibrium (“full employment”) is restored. These economists assume that, either because the two presidents did not understand elementary economics or because they pandered to special interest groups (e.g., unions), both Hoover and Roosevelt did just the opposite and lobbied to *prevent* wage cuts.

Now consider the institutional-Keynesian side of the argument. Both Hoover and FDR built their wage programs on the New Era wage theory (Rosenof 1983; Himmelberg 2001). If its tenets are accepted and an economic depression begins, what would logically follow as the policy response?

Clearly it would be broadly consistent with exactly what Hoover and Roosevelt did. That is, Hoover and Roosevelt knew that the depression was a problem of generalized inadequate demand, illustrated at the industry level by the problem of the Ford Company, which could easily produce more Model Ts but had few customers with enough income to buy them (Rosen 1977; Temin 2007). Seen in this light, it appeared to Hoover and Roosevelt counterproductive and wrong-headed to press Ford and other employers to cut wages with the idea that their worker-customers would then walk in and buy more of their products—even if the prices are marked down (Fusfeld 1956). Of course, it is not the wage rate *per se* that determines household income, as total employment and hours of work also count, but Hoover, Roosevelt, and their advisors believed, probably correctly (Hamermesh 1993), that labor demand is in general inelastic—probably quite so in a depression situation—and therefore wage cuts reduce the aggregate wage bill. Wage maintenance therefore makes sense from a spending perspective.

Both presidents also thought that a large contributor to the New Era prosperity of the United States was the labor peace and rapid productivity

¹⁹Cole and Ohanian (2011) claim “a recovery began in the summer of 1932, *well before the New Deal* . . . The Federal Reserve Board’s Index of Industrial Production rose nearly 50% between the Depression’s trough of *July 1932 and June 1933*” (emphasis added). Their two-part argument is that wage deflation in 1932 was reviving production but the New Deal short-circuited the self-recovery process. Re-examination of the data reveals their claim is incorrect and misleading. The index of production was at 4.90 (2007 = 100) in September 1931 when U.S. Steel made the first wage cut, subsequently fell to 3.67 in July 1932 (almost a year of substantial wage deflation) and, after several more quarters of wage cutting, remained at 3.77 (essentially no change) at Roosevelt’s March 1933 inauguration. After the start of the New Deal the production index then jumps to 5.43 in June. Thus, they have misattributed the timing of the output spike in the early New Deal in order to find evidence of self-recovery in 1932.

growth made possible by the new goodwill industrial relations system (Barber 1985; Gordon 1994). They surmised, therefore, that wage cutting—and all the other give-backs that inevitably follow (e.g., speedups, harsher treatment)—would not only quickly destroy the expensive and difficult-to-recreate human capital investment built up over the previous decade but also unleash labor unrest, strikes, and militant union campaigns—and all for no gain in jobs or production! Here again wage maintenance makes good sense. When contemplating what to do with wages, both presidents also quickly realized that what they did *not* want to do was turn the nation into a macroeconomic example of the coal industry in which wage cuts and destructive competition unleash a deflationary race to the bottom that impoverishes and then bankrupts millions of families and companies. And, finally, both presidents could see the human wreckage and social costs that arise from things such as homelessness, malnutrition, and child labor when wage cuts lower families' incomes below the bare survival level.

Thus, for all these reasons, which appear to be logical deductions derived from reasonable premises and therefore good economics, both Hoover and FDR opted for stable wages. It may also be noted, contrary to the claim of Ohanian (2009), that Hoover did not arm-twist reluctant employers to forego wage cuts since the major corporations were *already* committed to stable wages as part of their profit-maximizing human resource strategy (Bernstein 1960; Ozanne 1968; Kaufman 2008). Further, if Hoover was a hand-maiden of unions' interests then he would have adopted their number-one recovery measure—a 30 hour workweek (Far 1959).

Let us now shift attention to the New Deal labor program. First note that both Commons and Keynes supported it, at least in broad outline. This is hardly surprising in the case of Commons, given that he was identified in the news media at the time as “Prophet of the New Deal” and “Father of Brain-Trusting” and had lobbied for two decades and more for stronger protective labor law, expanded collective bargaining, and creation of a safety net of social insurance programs (Kaufman 2003c). As for Keynes, he wrote an open letter to FDR published in the *New York Times* (12/31/33):

You have made yourself the trustee for those in every country who seek to mend the evils of our condition by reasoned experiment within the framework of the existing social system. If you fail, rational change will be gravely prejudiced throughout the world, leaving orthodoxy and revolution to fight it out. But if you succeed . . . we may date the first chapter of a new economic era from your accession to office. (quoted in Moggridge 1982, Vol. 21: 289)

On FDR's labor program, Keynes declared, “I regard the growth of collective bargaining as essential. I approve minimum wages and hours regulation” (Moggridge 1982, Vol. 21: 438).

The three central pieces of New Deal labor legislation are the National Labor Relations Act (NLRA), Fair Labor Standards Act (FLSA), and Social Security Act (SSA). Mention must also be made of the National Industrial Recovery Act (NIRA) because portions of it were a forerunner to the NLRA and FLSA. The NLRA encouraged and institutionalized collective bargain-

ing and banned nonunion representation plans (company unions); the FLSA established laws setting a federal minimum wage, an overtime pay requirement, and a ban on child labor; and the SSA created a federal old-age pension plan and federal-state unemployment insurance system (Bernstein 1970; Gordon 1994). These laws were enacted during the period from 1935 to 1938; the economy had started to recover but was by any measure still mired in depression (e.g., unemployment was between 15% and 20%) and, indeed, it suffered a relapse in 1938.

The central question is, Were these three labor laws good or bad economic policy? From the perspective of DS economics only one answer is possible—bad and terribly timed. All three substantially increased the price of labor, raised business operating cost, and diminished incentives to work—in the middle of a depression! From a real business cycle perspective, all cause a large negative supply shock and contraction in output and employment.

Now examine this matter through the prism of New Era wage theory. The task is to stop destructive competition, expand purchasing power, contain growing labor radicalization and conflict, and keep labor conditions and living standards from falling below the social minima. Commons and Keynes both looked to monetary and credit policy as the first-line policy instrument for stabilizing aggregate demand (Whalen 1993; Atkinson and Oleson 1998; Skidelsky 2009). But it had clearly failed in the early part of the depression, partly because adherence to the orthodox gold standard—called by Keynes a “barbarous relic” (quoted in Moggridge, Vol. 20: 161)—induced the Federal Reserve to perversely raise interest rates and contract money growth (Eichengreen 2007). With the economy deep in depression and banks hoarding excess reserves, it appeared that expansionary monetary policy and lower interest rates were no longer effective. To the dismay of DS fundamentalists, Roosevelt quickly abandoned the gold standard once in office; however, by this point expansionary monetary policy was too much “pushing on a string” (Romer 1993; Bernanke 2000).

Commons and Keynes also favored countercyclical deficit spending, but here too was a large problem. Both Hoover and Roosevelt opposed budget deficits and FDR in particular (contra conventional wisdom) used this option in his first term as sparingly as political pressure would allow (Himmelberg 2001). With an impotent domestic monetary tool, an anemic fiscal tool, and an uncertain foreign exchange tool, Commons and Keynes, along with FDR and all his advisors (Rosen 1977), had to look for other options to stop the downward plunge and spur recovery.

One option was to let wages and prices fall further and trust that recovery automatically starts via the economy’s self-regulating mechanism. As Keynes famously remarked, however, “We are all dead in the long run,” and it looked to him and many other observers that when FDR took office in early 1933 the long-run was starting to shrink to a matter of months if deflation and contraction continued on their downward spiral (Skidelsky 1995: 490).

FDR had to act fast, and he pushed Congress to enact the NIRA in June 1933. From a Commons-Keynes perspective, the NIRA had both good and

bad parts. One good part is that it quickly reversed the deflationary expectations that were dragging the economy downward and jump-started a rebound in production, employment, and optimism (Skidelsky 1995: 490; Eggertsson 2008). Another beneficial component consisted of measures to stabilize wages, such as the famous Section 7(a) provision forbidding employers from interfering with workers' rights to collective bargain and a provision mandating minimum wages (Far 1959; Gordon 1994). Finally, upon the insistence of Senator Robert Wagner, the NIRA also included over \$3 billion for public works spending.

The bad part, which Keynes detailed in a letter to FDR (Moggridge 1982, Vol. 21: 291), was allowing industry associations to fix prices and cartelize product markets in an effort to stop price deflation. Businessmen vigorously asserted that economic stabilization required limits on competition, so the NIRA suspended the antitrust laws.²⁰ This provision, however, was restrictive, not expansionary, and was unnecessary since stabilizing the wage structure effectively stabilizes the price structure. A number of institutional economists, particularly from the Veblenian planning wing of the field, also favored the NIRA as a move toward European-style corporatism (management of the economy by organized interest groups), economic planning, and industrial self-government (Balisciano 1998; Rutherford and Desroches 2008). Commons, however, was not in favor of the corporatist side of the NIRA. He favored, where possible, market and voluntarist arrangements and promoted collective action solutions that were more "bargained" (mutual consent, as opposed to "managerialist" or "commanded") and decentralized (Commons 1934, chap. 11).

The NIRA was declared unconstitutional in June 1935 (Far 1959; Gordon 1994). The unemployment rate had come down but was still near 20 percent (excluding people on New Deal make-work projects); also, the public relief and job creation programs were underfunded relative to the massive poverty and human suffering after five years of depression. So, again, FDR had to come up with a policy response to keep recovery going and rebuild the social minima.

This brings us to the trilogy of NLRA, FLSA, and SSA. In effect, the NLRA and FLSA restored and strengthened the wage stabilization–recovery program contained in the NIRA (Mitchell 1984; Gordon 1994; Kaufman 1996). The NIRA's Section 7(a) protection of collective bargaining rights was strengthened by means of a set of proscribed unfair labor practices, the creation of a secret ballot union representation procedure, and a new regulatory agency to oversee the law. The FLSA similarly strengthened the NIRA's minimum wage provision so that it now covered most of the workforce and was mandatory, rather than negotiated; the FLSA also did the same with

²⁰Chester Barnard, a well-known telephone executive and management writer of the 1930s, was among this group. He said, "We shall never get it [stabilization] until we achieve integration and that may possibly mean a much wider application of the principle of regulated monopoly" ("Business Integration Essential to Stabilized Progress," *Journal of Industry and Finance*, 9/30: 13).

overtime pay and banishment of child labor. The SSA was the new piece of the labor program, as the NIRA had no social insurance component.

These three bills are not commonly viewed in the IR literature as directly serving a macroeconomic purpose. Frances Perkins, Roosevelt's secretary of labor, clearly stated otherwise, however, and in almost classic form for the thesis of this article:

As a nation, we are recognizing that programs long thought of as merely labor welfare, such as shorter hours, higher wages, and a voice in terms and conditions of work, are really essential economic factors for recovery and for the technique of industrial management in a mass production age. (quoted in Craypo 1997: 226)

In particular, the NLRA was intended to promote recovery by (1) using collective bargaining to put a floor on wages and conditions, thus stopping destructive competition; (2) augmenting purchasing power and aggregate demand by raising wages and keeping them in line with productivity growth and the cost of living; and (3) institutionalizing union recognition and bargaining and thus ending a potent source of strikes and embittered relations (Mitchell 1984; Kaufman 1996). The NLRA also banned employee representation plans (company unions) because, in Wagner's view, although they often improved internal workplace relations they nonetheless were a threat to the New Deal's wage-led recovery program (Kaufman 2000).

The FLSA had much the same economic purpose and, indeed, was portrayed as an alternative form of collective bargaining for unorganized workers and in industries and states with small union coverage (Linder 1989; Craypo 1997). Besides raising wages for the lowest paid and creating a wage floor across labor markets, the FLSA also sought to curb other forms of destructive competition and social exploitation by restricting long work hours and child labor.

The SSA created old-age pensions and federal-state programs of unemployment insurance. The old-age pension program was in part a reform effort to set social minima for retired workers and their families. It was also expressly adopted to promote greater purchasing power via a regressive tax-benefit schedule that on balance redistributed income from the top tier to the low-to-middle tier (Graebner 1980). In the short run, however, it may have actually had a contractionary effect because payroll taxes increased faster than benefit payments. The unemployment insurance part of SSA also had a foundation in New Era wage doctrines (Commons 1923a). For example, it provides a living wage during periods of unemployment, stabilizes household income so that unemployed workers have partial support for necessities and mortgages, makes recessions shallower by reducing the size of the Keynesian spending multiplier, and provides an incentive for firms to stabilize employment and payrolls (Altman 2004).

I need to make three additional observations before closing. First, it is indisputable that the New Deal labor policies, most particularly the NLRA and Section 7(a) of the NIRA, along with the union organizing and mass strikes that accompanied these policies, created a negative supply shock that

(*ceteris paribus*) retarded recovery. Sit-down strikes don't contribute to higher auto production. As with every other part of the critics' case, however, there is another side to the story.

Commons's *Legal Foundations of Capitalism* (1924) describes how excluded and oppressed groups, beginning in the twelfth century when the English feudal lords wrested the *Magna Carta* from tyrannous King John, have in various violent and peaceful ways challenged the established power structure to gain greater political rights, voice, and share of the economic pie. From an institutional perspective, the labor uprisings of the 1930s were the next chapter in this story: masses of workers, supported by a sympathetic Democratic administration, stood up against an autocratic form of industrial government where employers exercised monarch-like powers and workers were given no more legal protections in labor markets than were commodities in product markets. Likewise in this view part of the cause of the Depression was an unbalanced economic system with a skewed structure of income and wealth, political power, property rights, and management prerogatives, and accordingly, structural reform became a prerequisite for recovery and lasting prosperity. This theme is stated in the preamble to the NLRA, which ties the depression to lack of broad-based purchasing power resulting from labor's *inequality of bargaining power* (Mitchell 1984; Kaufman 1996). Therefore, the New Deal can be considered a double gain: It laid the foundation for economic recovery from the depression and a three-decade era of shared economic growth, and it brought to the American labor market and workplace a much-needed expansion of *industrial democracy* (Derber 1970).

A second important observation is that questions may certainly be raised about the efficacy and wisdom of parts of the New Deal labor program. With the advantage of hindsight, one can doubt that a wage-led recovery strategy is the most efficacious approach to ending a depression. As already pointed out, however, complete economic collapse appeared dangerously close, and other policy instruments seemed foreclosed or of doubtful effectiveness. Also, the rationale for a wage-led recovery came from a widespread conviction that an important cause of the depression was an underconsumption problem caused by the growing inequality of income and wealth during the 1920s (Rosenof 1975; Mitchell 1984; Kaufman 1996).

Although the income inequality explanation for the Great Depression is almost completely ignored or dismissed by modern economists (e.g., Romer 1993; Parker 2007: 115), Roosevelt, Wagner, and many others believed maldistribution was an important structural explanation for the slump (Fusfeld 1956; Rosenof 1975).²¹ Here, interestingly, a major cleavage occurred in the

²¹There were different theories of underconsumption at the time (McCracken 1933; Kuhn 1988); Commons (1923b) and Keynes (1936) rejected Hobson's overinvestment version but did give more credence to the failure of prices to fall and real wages to grow in line with productivity growth, presumably due to monopoly power in product markets. The post-1980 period also features rising productivity, stagnant real wages, and soaring income inequality (from 1976 to 2007, 58% of real income gains went to the top 1% of the households, as reported in *Financial Times*, July 14, 2010: 7). The link between rising

New Deal coalition. Those who believed income inequality and underconsumption were the primary causes of the depression also tended to favor more radical forms of planning, restructuring, and redistribution, including industry-wide unionism (Kuhn 1988; Balisciano 1998). Commons and Keynes were not in this group, however. They both favored policy measures to reduce income inequality but pinpointed monetary and credit problems as the primary cause of the depression (Commons 1934: 793, 804; Keynes 1936: 372; Whalen 2008b). They also had a philosophical commitment to market-ordering and voluntarism (Adelstein 1991; Atkinson and Oleson 1998) and gave greater recognition to the negative supply-side effect of unions on productivity and innovation (Commons 1911; Milnow 1992; Kaufman 2003c).

Many modern IR writers (e.g., Kochan, Katz, and McKersie 1986) take it as a given that the NLRA and its encouragement of unionism was the cornerstone of New Deal labor policy. There was, however, actually widespread division in the New Deal coalition over the efficacy of unions as a means to promote economic recovery and industrial democracy.²² Some New Dealers, such as William Leiserson (NLRB chair), swung over firmly to the cause of industry-wide unionism, saying “the organization of labor and collective bargaining [are] necessary and inevitable” (Leiserson 1938: 43). But Labor Secretary Frances Perkins took the opposite side: “I would rather pass a law than organize a union” (Wandersee 1993). This is a second-order dispute about specific policy means to reach a given end. On the first-order issue of the basic cause and solution of the depression, Keynesians and institutionalists of all varieties were united in the belief that unregulated labor markets were inimical to sustained prosperity and that one or more institutional mechanisms were needed to regulate aggregate demand, create a wage floor in labor markets, and keep real wages growing in line with productivity improvement. They would no doubt look at today’s economic situation in the same light (e.g., Whalen 2011).

Conclusion

Institutional economist and Brains Trust member Rexford Tugwell (quoted in Walton and Rockoff 2005: 469) remarked on the 1930s, “The Cat is out of the bag. There is no Invisible Hand. There never was. If the depression has not taught us that, we are incapable of education.” Apparently at least a por-

income inequality and aggregate demand remains, however, a heterodox and mostly invisible subject in the mainstream U.S. economics literature (but see Stiglitz 2012).

²²The dour opinion on the labor movement among even committed New Dealers is revealed in this reminiscence by Thomas Eliot, assistant legal counsel in the Labor Department: “While I was all for upholding workers’ rights under Section 7(a) . . . I was not automatically pro-union. Far from it. Frequently I wrote [family members] scornfully about the leaders of some of the major A.F. of L. craft unions . . . calling them ‘a bunch of racketeers in league with a lot of the building contractors’ . . . I’d like to see equality of bargaining power, but I doubt the efficacy of any program designed to increase the strength of the A.F. of L. as presently constituted” (Eliot 1992: 56–57).

tion of today's economists are indeed incapable of education, because for several decades a growing number have been pushing anew the orthodox mantra that wage rigidity caused or much worsened the Great Depression and the high-wage New Deal labor program then further lengthened the downturn. Hence, the lessons inculcated are "government is part of the problem," "let free markets work," and "unemployment is an individual choice."²³

These are appealing and persuasive ideas for anyone schooled in the theory of demand and supply, and to deny them seems a sure sign it is the critic that is "incapable of education." My purpose has been to challenge the orthodox position on both counts. To do so, I have examined the position of John Commons and J. M. Keynes on the causes of the Great Depression, the desired policy on wages, and the pros and cons of the New Deal labor program. Both men supported wage maintenance, as did many other economists of that era. They did so for both theoretical and normative reasons. The theoretical reason was that wage cuts would not cure generalized unemployment and, if anything, would worsen the situation. Orthodox DS economists fail to see this now because, first, they ignore (per Keynes) the negative effect wage cuts have on total spending and employment (by conflating via the fallacy of composition micro DS conclusions with macro behavior) and, second, ignore (per Commons) the negative effect wage cuts have on the employment relationship and production–supply side of the economy (because they model labor as a commodity and firms as technical production functions). Had wages in labor markets in the Great Depression actually functioned more like prices in commodity markets, the certain result would have been an even more catastrophic economic collapse. This was what played out when the downturn considerably worsened after wages started their plunge in the fall of 1931. With government on the sidelines and DS running amuck, the wage-price structure and overall economy would surely have further slumped had Roosevelt and the New Deal not intervened.²⁴

²³Albert Rees, commenting on the "unemployment is disguised leisure" argument of Lucas and Rapping (1969), states: "Though scientific discussion is supposed to be dispassionate, it is hard for one old enough not to regard as monstrous the implication that the unemployment of that period could have been eliminated if only all the unemployed had been more willing to sell apples or to shine shoes" (1970: 308). Clark Kerr (1988) offers a similar assessment: "[O]ur hardworking neighbors and friends, through no fault of their own, were sold out, down to the family dog going to a stranger for a dime. These farmers were not seeking leisure or going on a job search. . . . What happened to them was totally involuntary" (1988: 6). Chicago labor economist Paul Douglas (1939) conducted an exhaustive empirical examination of the orthodox claim that the massive unemployment of the depression was because workers, unions, or the government kept wages too high and concluded, "there is no evidence to support this contention" (p. 157). Among free market theorists, however, the "wage too high" thesis has a logic seemingly so strong and self-evident that no amount of contradictory theoretical or empirical evidence seems able to dent it.

²⁴According to Keynes, "Individualistic capitalism simply cannot stand a declared policy of deflation" (Milnow 1992: 502) and "[I]f the theory that underlies all this [wage cutting] is to be accepted, the end will be that no one can be employed except those happy few who grow their own potatoes" (quoted in Dillard 1983: 217).

Commons encourages economists to utilize a broader and more human oriented theoretical framework and take a more pragmatic perspective on policy:

Interference with the law of supply and demand has always been the main objection raised against all collective action, whether against protective tariffs, against immigration restriction, against labor unions, or against corporations; but these interferences have nonetheless been repeated and cumulated for a hundred years, because the alternatives of noninterference under the circumstances were deemed worse than the interferences. Public programs and policies cannot be evaluated in terms of logical consequences of isolated assumptions or similarities. They must be judged by the practical consequences of their operations. This requires a subtle balancing of many parts—some of which are *necessarily* contradictory. (1950: 137, italics in original)

Since commitment to DS principles and the invisible hand idea are deeply ingrained in economists, moving beyond them is not easy—per Keynes’s statement that for him it took “a long struggle of escape . . . from habitual modes of thought and expression” (1936: viii). It is important to make this escape, however, because simplistic DS theorizing leads to seriously inaccurate diagnoses of the cause of economic problems and policy solutions thereto. Among the latter is blaming government, unions, and industrial relations practices for interfering in competitive labor markets and causing macroeconomic problems. The institutional-Keynesian view is that all three, even though imperfect and sometimes deleterious, are nonetheless essential to the survival and growth of capitalism because they balance, stabilize, and humanize a market system that is itself imperfect and sometimes destructive of both wealth and welfare.

References

- Adelstein, Richard. 1991. “The nation as an economic unit”: Keynes, Roosevelt, and the managerial ideal. *Journal of American History* 78(1): 160–87.
- Akerlof, George, and Janet Yellen. 1990. The fair wage-effort hypothesis and unemployment. *Quarterly Journal of Economics* 105 (May): 255–84.
- Altman, Morris. 2004. Why unemployment insurance might not only be good for the soul, it might also be good for the economy. *Review of Social Economy* 62(4): 517–41.
- Atkinson, Glen, and Theodore Oleson, Jr. 1998. Commons and Keynes: Their assault on laissez-faire. *Journal of Economic Issues* 32 (December): 1019–30.
- Balderston, Canby. 1935. *Executive Guidance of Industrial Relations*. Philadelphia: University of Pennsylvania Press.
- Balisciano, Marcia. 1998. Hope for America: American notions of economic planning between pluralism and neoclassicism, 1930–1950. In Mary Morgan and Malcolm Rutherford (Eds.), *From Interwar Pluralism to Postwar Neoclassicism*, pp. 153–78. Durham, NC: Duke University Press.
- Barber, William. 1985. *From New Era to New Deal: Herbert Hoover, the Economists, and American Economic Policy, 1921–1933*. New York: Cambridge University Press.
- Bernanke, Ben. 2000. *Essays on the Great Depression*. Princeton, NJ: Princeton University Press.
- Bernstein, Irving. 1960. *The Lean Years: A History of the American Worker, 1920–1933*. Boston: Houghton Mifflin.
- . 1970. *The Turbulent Years: A History of the American Worker, 1933–1941*. Berkeley, CA: University of California Press.

- Bewley, Truman. 1999. *Why Wages Don't Fall During a Recession*. Cambridge, MA: Harvard University Press.
- Brody, David. 1980. *Workers in Industrial America: Essays on the Twentieth Century Struggle*. New York: Oxford University Press.
- Calomiris, Charles. 2007. A raw deal: Reconsidering the Great Depression. *Foreign Affairs* 86(5): 141–46.
- Chari V., Patrick Kehoe, and Ellen McGrattan. 2003. Accounting for the Great Depression. *Federal Reserve Bank of Minneapolis Quarterly Review* 27(2): 2–8.
- Cole, Harold, and Lee Ohanian. 2011. Stimulus and the depression: The untold story. *Wall Street Journal* (September 26).
- Commons, John. 1909. American shoemakers, 1648–1895. *Quarterly Journal of Economics* 24(4): 39–83.
- . 1911. Unions and Efficiency. *American Economic Review* 1(3): 463–72.
- . 1919. *Industrial Goodwill*. New York: McGraw-Hill.
- . 1921. Industrial relations. In J. Commons (Ed.), *Trade Unionism and Labor Problems*, 2nd series, pp. 1–16. Boston: Ginn (reprinted by Augustus Kelly, 1967).
- . 1923a. Unemployment prevention and insurance. In L. Edie (Ed.), *Big Business: Economic Power in a Free Society*, pp. 164–205. New York: Macmillan.
- . 1923b. Hobson's "Economics of Unemployment." *American Economic Review* 13(4): 638–47.
- . 1923c. Wage theories and wage policies. *American Economic Review* 13(1): 110–17.
- . 1924. *The Legal Foundations of Capitalism*. New York: Macmillan.
- . 1934. *Institutional Economics: Its Place in Political Economy*. New York: Macmillan.
- . 1950. *The Economics of Collective Action*. Madison, WI: University of Wisconsin Press.
- Cowdrick, Edward. 1930. Dulling the ax of dismissal. *Nation's Business* (October 1930): 47–49, 212–13.
- Craypo, Charles. 1997. Alternative perspectives on the purpose and effects of labor standards legislation. In Bruce Kaufman (Ed.), *Government Regulation of the Employment Relationship*, pp. 221–51. Madison, WI: Industrial Relations Research Association.
- Crotty, James. 1990. Keynes on stages of development of the capitalist economy: The institutional foundation of Keynes' methodology. *Journal of Economic Issues* 24(3): 761–80.
- Davidson, Paul. 2007. *John Maynard Keynes*. New York: Palgrave Macmillan.
- Davis, J. Ronnie. 1971. *The New Economics and the Old Economists*. Ames, IA: Iowa State University Press.
- Derber, Milton. 1970. *The American Idea of Industrial Democracy*. Champaign-Urbana, IL: University of Illinois Press.
- Dessing, Maryke. 2002. Labor supply, the family and poverty: The S-shaped labor supply curve. *Journal of Economic Behavior and Organization* 49(4): 433–58.
- Dillard, Dudley. 1946. The pragmatic basis of Keynes's political economy. *Journal of Economic History* 6 (November): 121–52.
- . 1983. *Economics of John Maynard Keynes: The Theory of a Monetary Economy*. Westport, CT: Greenwood Publishing Group.
- Douglas, Paul. 1928. The modern technique of mass production and its relation to wages. *Proceedings of the Academy of Political Science*, Vol. 12 (1926–28): 663–88.
- . 1939. The effect of wage increases upon employment. *American Economic Review* 29(1): 138–57.
- Eggertsson, Gauti. 2008. Great expectations and the end of the depression. *American Economic Review* 98(4): 1476–1516.
- Eichengreen, Barry. 2007. Barry Eichengreen. In Randall Parker (Ed.), *The Economics of the Great Depression*, pp. 138–54. Northampton, MA: Edward Elgar.
- Eliot, Thomas. 1992. *Recollections of the New Deal: When the People Mattered*. Boston: Northeastern University Press.
- Emerson, Harrington. 1922. Wages. *Chemical and Metallurgical Engineering* (August 30): 400–403.
- Far, Grant. 1959. *The Origins of Recent Labor Policy*. Boulder, CO: University of Colorado Press.
- Fusfeld, Daniel. 1956. *The Economic Thought of Franklin D. Roosevelt and the Origins of the New Deal*. New York: Columbia University Press.

- Galloway, Lowell. 2010. Unions, the high-wage doctrine, and employment. *Cato Journal* 30(1): 197–213.
- Glickman, Lawrence. 1997. *A Living Wage: American Workers and the Making of Consumer Society*. Ithaca, NY: Cornell University Press.
- Gordon, Colin. 1994. *New Deals: Business, Labor, and Politics in America, 1920–1935*. New York: Cambridge University Press.
- Graebner, William. 1980. *A History of Retirement: The Meaning and Function of an American Institution*. New Haven, CT: Yale University Press.
- Groshen, Erica, and Mark Schweitzer. 1997. Macro- and microeconomic consequences of wage rigidity. In D. Lewin, D. Mitchell, and M. Zaidi (Eds.), *The Human Resource Management Handbook*, Part 1, pp. 217–49. Greenwich, CT: JAI Press.
- Hamermesh, Daniel. 1993. *Labor Demand*. Princeton, NJ: Princeton University Press.
- Hanes, Christopher, and John James. 2003. Wage adjustments under low inflation: Evidence from U.S. History. *American Economic Review* 93(4): 1414–23.
- Hansen, Alvin. 1923. The outlook for wages and employment. *American Economic Review* 13(1): 27–44.
- Hicks, Clarence. 1941. *My Life in Industrial Relations*. New York: Harper & Bros.
- Himmelberg, Robert. 2001. *The Great Depression and New Deal*. Westport, CT: Greenwood.
- Jacoby, Sanford. 1985. *Employing Bureaucracy: Managers, Unions, and the Transformation of Work in American Industry, 1900–1945*. New York: Columbia University Press.
- . 1997. *Modern Manors: Welfare Capitalism Since the New Deal*. Princeton, NJ: Princeton University Press.
- Johnson, George. 1921. What I've learned about business since 1920. *System* 15(6): 679–83, 728–30.
- Kates, Steven. 1998. *Say's Law and the Keynesian Revolution*. Northampton, MA: Elgar.
- . 2008. A letter from Keynes to Harlan McCracken dated 31st August 1933: Why the standard story on the origins of the *General Theory* needs to be rewritten. *History of Economics Review* 47 (Winter): 39–53.
- Kaufman, Bruce. 1996. Why the Wagner Act? Reestablishing contact with its original purpose. In D. Lewin, B. Kaufman, and D. Sockell (Eds.), *Advances in Industrial and Labor Relations*, Vol. 7, pp. 15–68. Greenwich, CT: JAI Press.
- . 2000. The case for the company union. *Labor History* 41(3): 321–50.
- . 2003a. Industrial Relations Counselors, Inc.: Its history and significance. In Bruce Kaufman, Richard Beaumont, and Roy Helfgott (Eds.), *Industrial Relations to Human Resources and Beyond: The Evolving Process of Employee Relations Management*, pp. 31–112. Armonk, NY: M. E. Sharpe.
- . 2003b. The quest for cooperation and unity of interest in industry. In Bruce Kaufman, Richard Beaumont, and Roy Helfgott (Eds.), *Industrial Relations to Human Resources and Beyond: The Evolving Process of Employee Relations Management*, pp. 115–46. Armonk, NY: M. E. Sharpe.
- . 2003c. John R. Commons and the Wisconsin school on industrial relations strategy and policy. *Industrial and Labor Relations Review* 57(1): 3–30.
- . 2004. *The Global Evolution of Industrial Relations: Events, Ideas and the IIRA*. Geneva: International Labour Organization.
- . 2008. *Managing the Human Factor: The Early Years of Human Resource Management in American Industry*. Ithaca, NY: Cornell University Press.
- . 2010a. The theoretical foundation of industrial relations and its implications for labor economics and human resource management. *Industrial and Labor Relations Review* 64(1): 817–51.
- . 2010b. *Hired Hands or Human Resources? Case Studies of Human Resource Programs and Practices in Early American Industry*. Ithaca, NY: Cornell University Press.
- . 2010c. Institutional economics and the minimum wage: Broadening the theoretical and policy debate. *Industrial and Labor Relations Review* 63(3): 427–53.
- Kerr, Clark. 1988. The neoclassical revisionists in labor economics (1940–1960)—R.I.P. In Bruce E. Kaufman (Ed.), *How Labor Markets Work*. Lexington, MA: Lexington Books.
- Keynes, John. 1936. *The General Theory of Employment, Interest, and Money*. London: Harcourt Brace.

- King, William. 1918. *Industry and Humanity*. Toronto: University of Toronto Press.
- Kochan, Thomas, Harry Katz, and Robert McKersie. 1986. *The Transformation of American Industrial Relations*. New York: Basic Books.
- Krugman, Paul, and Robin Wells. 2009. *Macroeconomics*, 2d ed. New York: Worth.
- Kuhn, Rick. 1988. Labour movement economic thought in the 1930s: Underconsumptionism and Keynesian economics. *Australian Economic History Review* 28(2): 53–74.
- Lauck, W. Jett. 1929. *The New Industrial Revolution and Wages*. New York: Funk & Wagnalls.
- Lavoie, Marc. 1992. *Foundations of Post-Keynesian Economic Analysis*. Northampton, MA: Elgar.
- Lawler, Edward. 1992. *The Ultimate Advantage: Creating the High-Involvement Organization*. San Francisco: Jossey-Bass.
- Lee, Frederick, and Warren Samuels. 1992. *The Heterodox Economics of Gardiner C. Means: A Collection*. Armonk, NY: M. E. Sharpe.
- Leiserson, William. 1938. *Right and Wrong in Labor Relations*. Berkeley, CA: University of California Press.
- Levendis, John. 2007. The fallacy of wage cuts and Keynes' involuntary unemployment. *Journal of the History of Economic Thought* 29(3): 309–29.
- Lewisohn, Sam, Ernest Draper, John Commons, and Don Lescohier. 1925. *Can Business Prevent Unemployment?* New York: Alfred A. Knopf.
- Linder, Marc. 1989. The minimum wage as industrial policy: A forgotten role. *Journal of Legislation* 16(1) 151–71.
- Lucas, Robert, and Leonard Rapping. 1969. Real wages, employment, and inflation. *Journal of Political Economy* 77 (June): 721–54.
- Lutz, Mark. 1999. *Economics for the Common Good: Two Centuries of Social Economic Thought in the Humanistic Tradition*. New York: Routledge.
- MacKenzie, Douglas. 2010. Industrial employment and the policies of Herbert C. Hoover. *Quarterly Journal of Austrian Economics* 13(3): 101–19.
- Madsen, Jakob. 2004. Price and wage stickiness during the Great Depression. *European Review of Economic History* 8(3): 263–95.
- McCracken, Harlan. 1933. *Value Theory and Business Cycles*. New York: Falcon Press.
- Meyer, Stephen. 1981. *The Five Dollar Day: Labor, Management, and Social Control in the Ford Motor Company, 1908–1921*. Albany, NY: State University of New York Press.
- Miller, Gary. 1991. *Managerial Dilemmas: The Political Economy of Hierarchy*. Cambridge, UK: Cambridge University Press.
- Milnow, Alex. 1992. The evolution of J. M. Keynes' wage and employment theory, 1920–1946. *History of Economics Review* 17 (Winter): 47–78.
- Mitchell, Daniel. 1984. Inflation, unemployment, and the Wagner Act: A critical reappraisal. *Stanford Law Review* 38 (April): 1065–95.
- . 1985. Wage flexibility then and now. *Industrial Relations* 24(2): 266–79.
- . 1986. Wages and Keynes: Lessons from the past. *Eastern Economic Journal* 12(3): 199–208.
- . 1993. Keynesianism, old Keynesianism, and new Keynesian wage nominalism. *Industrial Relations* 32(1): 1–29.
- Moggridge, Donald. 1982. *The Collected Writings of John Maynard Keynes*, Vols. 20 and 21. London: Macmillan.
- Moriguchi, Chiaki. 2005. Did American welfare capitalists breach their implicit contracts during the Great Depression? Preliminary findings from company-level data. *Industrial and Labor Relations Review* 59(1): 51–81.
- Mulligan, Casey. 2010. Do jobless benefits discourage people from finding jobs? *New York Times*, March 17, Economix Blogs, *New York Times*. Accessed at <http://economix.blogs.nytimes.com>.
- Neumark, David. 2009. Delay the minimum wage hike. *Wall Street Journal*, June 12: A15.
- Nevins, Allan. 1954. *Ford: The Times, the Man, the Company*. New York: Scribner's.
- O'Brien, Anthony. 1989. A behavioral explanation for nominal wage rigidity during the Great Depression. *Quarterly Journal of Economics* 104(4): 719–35.
- Ohanian, Lee. 2009. What—or Who—Started the Great Depression? *Journal of Economic Theory* 144(6): 2310–35.

- Ozanne, Robert. 1968. *Wages in Theory and Practice: McCormick and International Harvester, 1860–1960*. Madison, WI: University of Wisconsin Press.
- Parker, Randall. 2007. *The Economics of the Great Depression*. Northampton, MA: Edward Elgar.
- Perelman, Michael. 2007. *The Confiscation of American Prosperity: From Right-Wing Extremism and Economic Ideology to the Next Great Depression*. New York: Palgrave Macmillan.
- Pigou, Arthur. 1933. *The Theory of Unemployment*. London: Cass.
- Prasch, Robert. 2005. The social cost of labor. *Journal of Economic Issues* 39(2): 1–7.
- Prescott, Edward. 1999. Some observations on the Great Depression. *Federal Reserve Bank of Minneapolis Quarterly Review* 23(1): 25–29.
- Raymond, Daniel. 1930. Flight from high wages. *Outlook and Independent*, July 30: 498–500, 516–17.
- Rees, Albert. 1970. On equilibrium in labor markets. *Journal of Political Economy* 78(2): 306–10.
- Riggi, Marriana. 2010. Nominal and real wage rigidities in new Keynesian models: A critical survey. *Journal of Economic Surveys* 24(3): 539–72.
- Romer, Christina. 1993. The nation in depression. *Journal of Economic Perspectives* 7(2): 19–39.
- Rosen, Elliott. 1977. *Hoover, Roosevelt, and the Brains Trust: From Depression to New Deal*. New York: Columbia University Press.
- Rosenof, Theodore. 1975. *Dogma, Depression, and the New Deal*. Port Washington, NY: Kennikat Press.
- . 1983. *Patterns of Political Economy in America: The Failure to Develop a Democratic Left Synthesis, 1933–1950*. New York: Garland.
- Rutherford, Malcolm, and C. Tyler Desroches. 2008. The institutionalist reaction to Keynesian economics. *Journal of the History of Economic Thought* 30(1): 29–48.
- Samuelson, Paul. 1946. Lord Keynes and *The General Theory*. *Econometrica* 14 (July): 187–200.
- . 1948. *Economics, An Introductory Analysis*. New York: McGraw Hill.
- Shapiro, Carl, and Joseph Stiglitz. 1984. Equilibrium unemployment as a worker discipline device. *American Economic Review* 74(3): 433–44.
- Shidle, Norman. 1920. How an effective employment department is being developed. *Automotive Industries*, August 19: 370–73.
- Sismondii, J. C. L. 1819 (1951). *Nouveaux Principes d'Economie Politique*, 3rd ed. Geneva: Jeheber.
- Skidelsky, Robert. 1995. *John Maynard Keynes: The Economist as Savior, 1920–37*, Vol. 2. New York: Penguin.
- . 2009. *Keynes: Return of the Master*. New York: Public Affairs.
- Slichter, Sumner. 1928. The secret of high wages. *New Republic* 54(695): 183–85.
- Solow, Robert. 1990. *The Labor Market as a Social Institution*. New York: Blackwell.
- Stabile, Donald. 1993. *Activist Unionism: The Institutional Economics of Solomon Barkin*. Armonk, NY: M. E. Sharpe.
- . 2008. *The Living Wage: Lessons from the History of Economic Thought*. Northampton, MA: Edward Elgar.
- Stiglitz, Joseph. 2010. *Freefall: America, Free Markets and the Sinking of the World Economy*. New York: W. W. Norton.
- . 2012. *The Price of Inequality: How Today's Divided Society Endangers Our Future*. New York: W. W. Norton.
- Temin, Peter. 2007. Peter Temin. In Randall Parker (Ed.), *The Economics of the Great Depression*, pp. 29–51. Northampton, MA: Edward Elgar.
- Thornton, Mark. 2010. Hoover, Bush, and the Great Depression. *Quarterly Journal of Austrian Economics* 13(3): 86–100.
- Tipper, Harry. 1922. Fundamental of labor question ignored. *Automotive Industries*, April 20: 878–79.
- Tobin, James. 1975. Keynesian models of recession and depression. *American Economic Review* 65(2): 195–202.
- Vittoz, Stanley. 1987. *New Deal Labor Policy and the American Industrial Economy*. Chapel Hill, NC: University of North Carolina Press.

- Walton, Gary, and Hugh Rockoff. 2005. *History of the American Economy*, 10th ed. Mason, OH: Southwestern-Thompson.
- Walton, Richard. 1986. From control to commitment in the workplace. *Harvard Business Review* 63(2): 76–84.
- Wandersee, Winifred. 1993. I'd rather pass a law than organize a union: Frances Perkins and the reformist approach to organized labor. *Labor History* 34(1): 5–32.
- Whalen, Charles. 1993. Saving capitalism by making it good: The monetary economics of John R. Commons. *Journal of Economic Issues* 27(4): 1155–79.
- . 2008a. Toward “wisely managed” capitalism: Post-Keynesian institutionalism and the creative state. *Forum for Social Economics* 37(1): 43–60.
- . 2008b. John R. Commons and John Maynard Keynes on economic history and policy: The 1920s and today. *Journal of Economic Issues* 42(1): 225–42.
- . 2011. *Rethinking Economics: Analyzing Instability and Securing Prosperity after the Great Recession*. Northampton, MA: Edward Elgar.