Sticky Wages, Efficiency Wages, and Market Processes

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Mainstream macroeconomics is in disarray. Perusal of commonly used textbooks in macroeconomics will confirm that impression without much difficulty. Unfortunately, the same statement could have been made, and often was made, fifteen years ago. While in this sense little has changed in recent years, the disarray is now more fundamental and severe than at any time since the 1930s. Amidst this disarray a variant of Keynesianism identified as Neo- or New Keynesianism emerged in which the workings of labor markets are analyzed to a degree that is uncharacteristic of the orthodox Keynesian tradition. The key element in the New Keynesian analysis of the labor market is the concept of "efficiency wages." In what follows, the concept will be criticized, though criticisms that have been offered by mainstream economists will largely be ignored. Instead, this essay will focus on the criticism that follows from an Austrian perspective on entrepreneurship and the business cycle. It will be argued that the concept of efficiency wages provides an poor answer to the question of why wages are not sufficiently flexible so as to elminate fluctuations in unemployment, and that from an Austrian perspective the question is not all that relevant.

Historical Background

During the 1960s, when Austrian and other approaches were ignored and the major contention in the popular literature was between the Keynesians and monetarists, there appeared to be a common ground on which to contend. The mainstream perspective

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on the contention was in accord with Milton Friedman's: namely, "that the basic differences among economists are empirical, not theoretical."[1] Thus a common conceptual framework permitted Keynesians and monetarists, the two mainstream schools, to argue on each other's territory.

No longer does a common conceptual framework exist, even within the mainstream. There are at least three prominent variants of Keynesianism that are in important respects incompatible with one another: orthodox Keynesianism, Post Keynesianism, and the New Keynesianism.[2] Even within the so-called New Classical school, there are at least two general approaches that are at odds with each other. On the one hand, real business cycle theory emphasizes technological shocks to the supply side as the major cause of economic disturbances, despite the fact that technological shocks of the Schumpeterian sort are positive and thus can not by themselves explain recessions. On the other hand, those New Classical economists whose models are built on "Rational Expectations with Imperfect Information" attribute the business cycle to demand side shocks associated with unanticipated changes in the rate of growth of money, and have to contend with the empirical persistence of recessions beyond any amount of time that could reasonably be expected for the persistence of misinformation about the general price level. Nonetheless, the most significant factor that makes a simple comparison difficult is that some are based on a view of markets which sees them as clearing continuously, whereas others see the inability of markets to clear as the core problem, if not the virtual definition, of recession.

Clearly, Keynes and earlier orthodox Keynesians attempted to explain contractions as if markets, including the labor market, equilibrated without clearing. In almost any other context, equilibration and market clearing are seen as synonymous, but the possibility and likelihood of an "underemployment equilibrium" is the central message of Keynes. The device by which Keynes attempted to rationalize this semantical morass was the contention that the supply curve of labor is a function of nominal, not real, wages and is perfectly elastic at the current wage up to "full employment." Even so, the idea of a labor market in an economy-wide equilibrium with a genuine excess supply (involuntary

[1]The quotation is from Friedman (1971, p. 61), although he made similar statements on earlier occasions.

[2]These three variants are described in Bellante (1992).

unemployment) is nonsensical in terms of the usual definitions of "excess supply" and "equilibrium." This conception of the labor market is perhaps the weakest link in the Keynesian chain of logic. Economists after Keynes dealt with this problem in different ways. Patinkin, for example, argued that Keynes just was not using the usual definitions.[3] But the usual disposition of earlier Keynesians was to attribute the labor market's perceived inability to equilibrate to "sticky wages" while dropping mention of Keynes's attempts at explanation. Unemployment was treated as a residual effect once the equilibrium level of output is determined. The prior question of why wages should be "sticky" in the first place tended to be ignored, perhaps because Keynes's rationale was embarrassingly inconsistent with rational, optimizing behavior. Keynes, of course, did not indicate any personal embarrassment. He did not see as irrational the supply response of workers to the nominal wage instead of the real wage. His rationalization of this response is spelled out in chapter 19, "Changes in Money Wages," of *The General Theory* (1964, pp. 257–71). To Keynes's way of thinking, workers were more concerned with relative than absolute wages, and the way of maintaining relative wages was never work for less than the current money wage. Changes in the real wage brought about by changes in the purchasing power of money, however, did not disturb the pattern of relative wages, and so would not be resisted.

It is easy to see why Keynes's followers preferred to gloss over or ignore his treatment of the labor market. Nonetheless, this somewhat tortured line of reasoning enabled Keynes to see inflation as a more practical way out of a recession than the passage of time sufficient for markets to re-equilibrate. Further, Keynes did not see the idea of sticky wages as a crucial element in his model, as he strongly argued that even if nominal wages were flexible, reductions in nominal wages would not reduce unemployment.

Owing to Patinkin's pointing out the fallacy in this aspect of Keynes's exposition, orthodox Keynesian textbook treatments of the Keynesian model seem to accept the idea that sticky wages prevent a return to full employment that otherwise would occur, so that inflexibility of nominal wages becomes a crucial underlying but unexplained assumption of the model. The primary purpose of making the assumption of sticky wages was to dismiss out of hand the labor market behavior postulated in the classical

[3]Patinkin (1965, pp. 634–44 note K).

model; otherwise, the labor market and the actual processes by which labor markets functioned did not enter into the standard IS-LM model. Likewise, in monetarist models such as Friedman's (1971), the workings of the labor market were not taken into account.

Keynesian wage theory could be and was safely ignored for as long as Keynesian economics totally dominated the academic world. When the Keynesian hegemony began to crack in the 1970s, the behavior of labor markets again became a subject of macroeconomic discussion. From the monetarist side, Friedman (1976) eventually offered a description of the workings of labor markets in which fluctuations in the unemployment rate could be explained by a lag between the time of a change in the overall price level and workers' perception of that change. The supply of labor would be *temporarily* disturbed, for so long as that misperception remained. Combined with concurrent developments in the theory of search behavior, Friedman's description of the effects of unanticipated inflation suggested an explanation of cycles in unemployment that could be provided without resort to money illusion or disequilibrium in labor markets.

The Friedman perspective eventually both gave rise to, and was superseded by, the New Classical "equilibrium always" approach. Ironically, both the New Classical and primitive Keynesian positions attempted to portray markets strictly in equilibrium terms, despite the protestations of a minority of Keynesians (mostly European) to the effect that Keynes was really a disequilibrium theorist trying to write in language that Classical economists could understand.

Without doubt though, the Keynesian model that most American students find in standard textbooks is an effort at describing the possibility of an economy in equilibrium at less than full employment. So the analytical perspective of both Orthodox Keynesian and New Classical schools remains in fundamental contrast to the Austrian perspective which sees the business cycle as the result of policy-induced disequilibrium, particularly in terms of intertemporal coordination. However, the New Classical school's analysis results in the policy ineffectiveness conclusion, and such unemployment as is associated with business cycles is seen as the result of the intertemporal substitutability of labor. This rather implausible conclusion, particularly in severe depression, leaves the New Classical school with the most elegant but irrelevant model of cyclical activity among mainstream economists. But its irrelevancy has raised optimism among Keynesians that they may reemerge from their eclipse. The New Keynesian economics is their hopeful path to reemergence, and the concept of efficiency wages is seen as rescuing the Keynesian model from non-Keynesian criticisms of their treatment of the labor market.

It is clear that the New Keynesians really believe that they are on to something that effectively rescues the Keynesian paradigm and places it again at the intellectual forefront of macroeconomic reasoning. Viewed by an outsider to this effort at resuscitation, the concept seems like an attempt to revive the Old Keynesian perspective on relative wages being the object of workers' desires, while dressing that perspective in the garb of more modern jargon. It is not that new a concept, but distorts the previous insights about labor markets from which it borrows. As partial equilibrium microeconomics, the concept yields a few simple insights to those economists who are lulled by the simplistic view of markets fostered by the perfectly competitive model. As a macroeconomic concept, it fails badly because it totally abstracts from the interrelatedness of markets and ignores some of the more significant aspects of competition as a market process. With the concept of efficiency wages, New Keynesians see themselves as having immunized their revision of the Keynesian model from the criticisms that so damaged earlier versions, by putting Keynes's inelegant analysis of the labor market on a sound microeconomic footing. Although it does not logically follow, New Keynesians believe that they have thus per force reestablished the soundness of the case for government management of the economy.

Our argument is that there is a lot of self delusion involved, and it revolves around a concept no more substantial than a soap bubble.

Efficiency Wages: Is That All There Is?[4]

In his textbook summary of New Keynesian economics, Robert J. Gordon has said that "If anything in the microeconomics of labor markets could be called the 'rage of the 80s,' it is efficiency wage theory."[5] Yet the concept, to those who have not joined the New

[4]A brief treatment of efficiency wage theory appears in Yellen (1984). Extensive treatments appear in Weiss (1990) and in Akerlof and Yellen (1986).

[5]Robert J. Gordon (1990a, p. 229).

Keynesian equivalent of a tent revival, must surely seem too simple and innocuous to set off a rage. The concept posits a relationship between wages and productivity that over some range is positive. Thus up to some point, raising wages may lower per-unit wage costs. Moreover, it is not so much the absolute wage that affects intensity of effort, the tendency to stay with the firms, and all other desirable consequences of high pay. What matters is the extent to which the wage in the firm in question exceeds opportunities elsewhere, i.e., the market wage, conditioned on the probability of obtaining it.

In the most mechanistic treatments of labor supply, the wage rate affects only the willingness to show up for work and matters such as intensity of effort are ignored for simplicity. In this respect, the efficiency wage argument incorporates more of the real world than those models that implicitly assume that the only aspect of worker behavior that is affected by the wage rate is the quantity (hours) supplied. Under what circumstances this is a worthwhile incorporation is a distinct question. It is surely a safe guess that all economists believe that the greater the advantages accruing to a worker in her present job, the harder she will try to keep the job, and the less likely she will be to quit it. In most circumstances, this observation is so obvious as to not require explicit mention, and it is quite safe to ignore it in most analyses. But in this obvious relationship, New Keynesians believe that they have found the key to the rescue of Keynes and to the explanation of involuntary unemployment. Simply put, if the firm faces a decrease in demand, it will not take advantage of the seeming opportunity to reduce its wage costs by offering a lower wage, because lowering the wage it offers will actually increase its per-unit-of-output labor costs.

In one sense, this is just one more reason for wages not adjusting so as to continuously providing full employment. But the literature from competing schools of thought has provided a large number of reasons, some of which are mutually exclusive and some of which are not, to explain why adjustment is not instantaneous, or why employers in some situations will find it optimal to pay higher wages than other employers do for seemingly similar labor.

Some of these explanations predate Keynes by more than a century. More will be said on this point later. What then, makes this particular angle so attractive to New Keynesians? Several reasons are usually mentioned. Foremost is the idea that the refusal of employers to cut wages is based on what is seen as rational, profit-maximizing behavior. Second, the outcome is not at all based on money illusion or even temporary informational disequilibrium on the part of workers. It is for this reason that the efficiency wage argument is seen by its proponents as immune both from (a) the worker irrationality complaint leveled against Keynes and early Keynesians, and (b) the persistence problem that seems implausible in the New Classical and Friedmanite explanations that are based on misperceptions of the price level. Indeed, resulting unemployment is not the result of worker decisions at all. Workers' willingness to work at less than the going wage is of no consequence—in general, labor supply conditions do not matter at all. Thus, there can presumably be nothing voluntary about the resulting unemployment.

Last, in at least one formulation, the level of unemployment is not even affected by the shape of the demand curve for labor—only the average wage level is affected by its shape. This feature is seen as important because to its formulator it seems to resolve a paradox that is a paradox only to him: "This is an attractive property of the model. It is striking that real wages have doubled several times over the last century without having a large impact on average unemployment rates."[6]

A Few (But Not All) Criticisms of Efficiency Wage Theory

Much criticism of efficiency wage theory has been offered by mainstream economists. Again, it is not the purpose here to give a detailed accounting of those criticisms.[7] One of the remaining real puzzles of efficiency wage theory is with one of its fundamental premises: The model has all firms paying the same high *relative* wage; that is, they all pay a wage that is above the competitive wage. This premise can make sense for one or a few

[6]The formulation and the quotation are from Lawrence H. Summers (1988, pp. 384–85). The larger paradox is that a leading Harvard economist could somehow remain unaware of, or unimpressed by, the usual explanations of the enormous rise in real wages over this century. These explanations involve the effects of technological improvement and capital growth on equilibrium real wages and thus imply nothing about unemployment, involuntary or otherwise.

[7]Gordon (1990b) presents a fairly detailed critique of the New Keynesian economics with particular emphasis on efficiency wages and related concepts. His criticism focuses on the question of whether or not New Keynesian economics successfully builds a sound microeconomic foundation of wage (and price) stickiness. His judgment is for the most part negative.

firms, or perhaps even for a large sector of the market, but it cannot make sense for all firms.[8] If they all pay above-market wages, how is the market wage defined? Some strands of efficiency wage theory have an answer (sort of) to this question: The wage w to which workers compare their received wage is the wage rate elsewhere (also w), but discounted by the probability of receiving it, which is one minus the unemployment rate, u. In this manner, the wage w can be uniform across firms and workers still receive a wage premium that will induce them to avoid shirking and to stay with the firm! And in what is a remarkable sleight of hand, Summers (1988, p. 384) is able to make a connection between the productivity enhancing effects of the wage premium and the economy-wide equilibrium level of unemployment. Only in the allegedly implausible case in which the wage does not affect productivity does labor market equilibrium correspond to a zero unemployment rate. The sleight of hand comes from reversing the direction of causation that goes from the unemployment rate (which is first introduced as a given market datum) to the wage premium. In this particular formulation, nothing is done to explain this reversal of causation—it is simply the result of solving an equation for u, the "equilibrium" unemployment rate. Nowhere is a market process described, or hinted at, which will produce what this argument purports to produce; namely, an equilibrium unemployment rate the magnitude of which is positively related to the size of the uniform wage premium's effect on productivity.

Efficiency wage theory can be criticized on certain grounds if it is seen as one more reason why wages do not adjust so as to continuously eliminate disequilibrium, and along other lines if it is seen as permanently raising the unemployment rate. As an explanation of why wages are not perfectly flexible, it is a mere addition to reasons that have long been known to economists and, for that matter, non-economists with a respectable amount of common sense. All change involves cost, and we live in a world of uncertainty about the consequences of undertaking those changes. All of the other explanations that at various times have been offered, such as implicit contracting, staggered contracts, the effects of specific training, legal and institutional constraints,

[8]Public sector employers, for example, can pay wage rates that exceed those paid in the competitive private sector in order to provide rents to public employees for which they presumably will be grateful and will express that gratitude in the form of political support. Indeed, this possibility is explored in Bellante and Long (1981).

etc., have more to offer as explanations of sticky wages simply because they do not exclude the actions of workers themselves from consideration of how the labor market works.

In this regard, efficiency wage theory is inferior to the collection of explanations that preceded it. Even if one buys the claim that the efficiency wage theory rests on a firm microeconomic foundation, it still is just one more attempted explanation of wage stickiness. Piled on top of the others, it still does nothing to re-establish the case for demand management—a case which New Keynesians have merely asserted to exist without having demonstrated it. In any event, efficiency wage theory is much ado about very little: It is an open question whether the energy that went into producing the "rage of the 80s" might have been more usefully employed elsewhere.

If efficiency wage theory has a low marginal product as an explanation of wage stickiness, it has a negative marginal product as an explanation of equilibrium unemployment. Here the theory takes no account of likely entrepreneurial responses to efficiency wage theory. To see this point, let us grant for the moment that there are some firms that will pay-higher-than-market wages for reasons consistent with profit maximization. Additionally, let us assume that these firms do not employ all of the labor out there that would like to work at this wage. Are there no entrepreneurs that can find profitable ways to employ the abundantly available workers? And if the "market" wage is depressed by this abundance, won't this also lower the wage that "efficiency wage" employers need to pay in order to maintain the relative wage that is supposedly appropriate? And shouldn't this lowering of the efficiency wage increase optimal employment levels for the firms that pay efficiency wages? Haven't efficiency wage theorists thought about this? Apparently not: Efficiency wage theory contains a flaw that is often mentioned in criticism of the New Classical school—namely, excessive expository reliance on use of the "representative firm" as if all firms were representative. It is partial equilibrium analysis of a general equilibrium problem.[9]

[9]Stated otherwise, failure of some entrepreneurs to use available resources simply creates opportunities for others to do so on more favorable terms. The general equilibrium considerations are similar to those that apply to an economy composed of some unionized and some non-unionized firms: Unions may succeed in raising wages and lowering employment opportunities in unionized sectors. In proportion to their success, wages are lowered and employment is raised elsewhere. Any systematic effects on overall wages and employment are transitory.

A small dose of the Austrian appreciation for the interrelatedness of individual decisions and markets would go a long way here. Particularly useful would be an appreciation of how labor markets function in a world of heterogeneous firm technologies and circumstances, and of worker's subjective preferences. In this real world, a sorting and matching of workers and firms takes place along a multi-dimensional spectrum of wages and job conditions that is simply incompatible with the concept of identical "representative" firms paying a uniform wage permanently too high to provide full employment.[10] If efficiency wage theorists have contributed something to the microeconomic analysis of labor markets, it is the identification of yet another source of firm heterogeneity giving rise to equalizing pay differentials, namely variation across firms in the extent to which wage premia substitute for the expenses of monitoring worker effort. This contribution, however, yields no insights into the nature of unemployment or the business cycle.

The Misplaced Emphasis of Mainstream Macroeconomics

It is easy enough to conclude that efficiency wage theory does not provide or even contribute to an appealing answer to the question of why wages do not adjust continuously so as to prevent any deviation from full employment. But New Keynesians as well as their mainstream critics are not asking the most appropriate questions concerning the business cycle. Matters of wage and price flexibility are of secondary importance. Granted, they are not unimportant, but they relate to the problem that Austrians refer to as the secondary contraction and not the primary, causal events that initiate the primary contraction.

Austrians, and Mises in particular, have certainly given due attention to the role of wage stickiness in prolonging the secondary contraction. This attention provides the underpinnings of a telling empirical investigation, focused primarily on the Great Depression, by Lowell Gallaway and Richard K. Vedder (1987). The authors persuasively argue that wages were kept from achieving equilibrium levels during this period. Of course public policies initiated during this era aimed specifically at preventing

[10]This perspective combining the concept of equalizing pay differentials (which dates to Adam Smith) with the subjective value theory of Austrian economics is briefly outlined in Bellante and Porter (1990, pp. 659–62).

the fall of wages to their equilibrium levels and, combined with other New Deal measures, thoroughly impeded recovery. As Gallaway and Vedder documented, these policies were based on the notion that higher than equilibrium wages would actually increase the demand for labor. This notion of the "economy of high wages" had widespread appeal among the business elite of that era, most notably Henry Ford, but the notion is now thoroughly discredited.[11]

Concluding Remarks

It cannot be emphasized enough that analysis of wage stickiness cannot shed light on the nature of business cycles; at best it can provide a partial explanation of the length of the recovery phase. Perhaps too much attention has been given to the matter. In any event, to focus on the wage response issue is to miss the most important aspects of what Mises and other Austrians have had to say about business cycles in general and the Great Depression in particular.

The reason that mainstream economists focus in on the wage stickiness matter is clear enough: Modern mainstream macroeconomics has evolved into a method of analysis conducted as if aggregates actually interact with one another, as if capital were a homogeneous non-specific entity, as if relative prices and wages had no aggregate consequences, as if coordination across economic agents at a point in time were possible if only aggregate prices and wages were sufficiently flexible, and as if intertemporal coordination were no problem at all. With all of the important complexities of the real world thus misperceived, ignored, or assumed away, there is almost nothing else for mainstream economists to examine other than aggregate wage and price levels combined with autonomous shocks in their search for an understanding of the business cycle and unemployment.

Of all of these misperceptions, perhaps the most difficult impediment to understanding is the ignorance of the complexities of the capital structure. If the insights of Mises, Hayek, Rothbard[12]

[11]Interestingly though, Henry Ford's thoughts on pay have reemerged in the efficiency wage literature (Raff and Summers 1987) and have even found their way into at least one macroeconomics textbook Mankiw (1992, pp. 131–32). In this context, however, there is no mention of the imagined effects of wages on aggregate demand.

[12]Specific reference here is to the works of Mises (1971) and Hayek (1967) on the theory of the cycle in general, and to Rothbard (1983) on the specifics of the depression.

on economic instability, depression, and the impossibility of central management of the economy are to be appreciated, the mainstream's blindness to the nature and significance of the capital structure first must be overcome.

In all likelihood, those who find the New Keynesianism attractive are beyond reach. New Classical economists arrive at their policy ineffectiveness conclusion on the basis of a perfectly competitive, overly simplistic view of an economy in which markets are always in equilibrium. New Keynesians believe that any time they can find evidence that the real world is not perfectly competitive, not always in equilibrium, or otherwise not as simple as the New Classical economists' models portray it, they have somehow re-established a case for government intervention to improve the workings of the economy. Their apparent belief is a *non sequitur* of the first order. The vested interests of the intellectual world will ridicule the effort, but the task for Austrians is to demonstrate to the intellectually non-vested student that it just is not so.

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