NOTES

I would like to thank Hans van Bins, Harry Garreeten, and the editors for helpful comments on earlier drafts.

1. Mankiw is not a strong advocate of his definition; in private correspondence to me he stated that he is now somewhat displeased with all macroeconomic issues, including his one of the term New Keynesian. In his recent paper, “The Reimbursement of Keynesian Economics” (Mankiw, 1995), he writes that “With new Keynesianism looking so much like old classical, perhaps we could conclude that the term Keynesianism has outlived its usefulness.”

2. I claim a certain right to discuss the meaning of the term, New Keynesian, since I was one of its originators (Colander and Koford, 1985; Colander, 1986). In my view, whether this multiplicity-equilibrium approach to macroeconomics can be found in Keynes is a side issue of only historical interest. The real issue is how best to diagnose the macroeconomic problem.

3. This table is a modification of tables in Colander (1990, 194, 195).

4. One of the problems I have with Mankiw and Romer’s definition of New Keynesian economics is that the ceteris paribus is wages and price flexibility and the identification of real and nominal rigidities. Since the question of wage and price rigidities has always been part of New-Keynesian economics, in other papers I suggested that, at most, this work could be called New Neo-Keynesian (Colander, 1991, 1992), but said that such utilization understates the memory bank of even macro specialists.

REFERENCES


Colander, D., The New, the Neo and the New Neo. In The New, the Neo and the New Neo, June 1992, 194–70.


Hicks, J. R., Keynes and the Classics. Econometrica, April 1977, 147–60.


WOULD KEYNES BE A NEW KEYNESIAN?

Paul Davidson
University of Tennessee

The principle of a truth in labeling law that protects consumers' from false and misleading claims is often violated by economics textbooks. Under the truth in labeling law, a minimum quantity of beef is required in a patty before society permits anyone to sell it as a hamburger. Similarly some minimum quantity of Keynes’ logical analysis should be an essential ingredient in any theory sold as Keynesian, especially in textbooks to yet uneducated consumers. Paraphrasing a famous slogan of the 1988 Democratic presidential primary, “Where’s the Keynesian beef in New Keynesian economics?”

This paper demonstrates that (1) New Keynesian Economics (hereafter NKE) does not contain any of Keynes’s logical building blocks, and (2) NKE leads to policies that are the opposite of what Keynes advocated as solutions to the major problems facing real world economies.

WHAT IS NEW KEYNESIAN ECONOMICS?

In his article “What is New-Keynesian Economics?”, Gordon (1990) claims that Parkin (1984) was the first to use the term “New Keynesian.” Parkin (personal fax, 6 June 1991) claims that his original definition of NKE was “a class of models of the labor market that assume rational expectations and fixed term multi-period possibilities but not necessarily overlapping wage contracts.” Parkin contrasted this with his original definition of New Classical Economics (NCE): “A class of models of the labor market based on rational expectations and market clearing.” NKE is a “theory of aggregate supply” (Parkin, 1984, 74); it puts an ad hoc constraint on the classical aggregate supply curve by assuming a short-run fixity of nominal wages.

Parkin indicates that he would now propose new and different definitions for both NKE and NCE. He now defines NCE as “a research program that seeks to explain aggregate fluctuations as the consequences of perfectly coordinated Pareto efficient intertemporal substitution,” and NKE as a research program that seeks to explain aggregate fluctuations as the consequences of impediments to the coordination of the choices of rational agents who are individually maximizing but who are collectively prevented from achieving a Pareto efficient allocation” (personal fax, 6 June 1991). This new set of definitions changes the NKE emphasis from a per se fixed money wage system to one where coordination failures can induce (short-run?) nominal fixities and thereby cause unemployment equilibrium.

Gordon defines NKE as “research within the Keynesian tradition that attempts to build the microfoundations of wage and price stickiness” (1990, 1116). He adds: “Gordon insists that “price setting behavior is the essence of Keynesian economics. Any attempt to imbue it in microfoundations must begin from monopolistic or imperfect competition” (Gordon, 1990, 1136). The NKE game plan is to “to seize a failure of macro markets to clear from a starting point of rational expectations and the maximization of profits and individual welfare at the micro level” (Gordon, 1990, 1137). “Any satisfactory explanation of business cycles that warrants the label Keynesian must incorporate not just price stickiness, but ... must also recognize that the necessary condition for Eastern Economic Journal, Vol. 18, No. 4, Fall 1992 449
non-market clearing is a barrier to the full adjustment of nominal prices” [Gordon, 1990, 1133-9]. Finding rationales for the short-run stickiness of nominal values embedded in an aggregate supply function is apparently the sine qua non for New Keynesian acceptors.

Colander agrees, indicating that “an under-full-employment equilibrium can occur only if wages and prices are less than perfectly flexible” [1992, 446]. He claims that coordination failures are the sole rationale for explaining unemployment in NKE. Colander expands a traditional Neo-Classical production function to include “a new term coordination in the production function...[where] X = (K, L, C)...” The New Keynesian research agenda is to examine and understand that coordination function and how it relates with markets” [Ibid., 446].

If one accepts these NKE definitions, then, in the absence of any wage or price stickiness, it is theoretically impossible to experience a lack of aggregate demand. Gordon rationalizes this NKE view that it is supply failures and not a demand fault that causes unemployment when he claims that the complete research agenda for macroeconomics is circumscribed by “Lucas’s famous paper” [1990, 1118]. In asserting that “demand side topics can be omitted, since we know they are not at the heart of the conflict between New-Keynesian and new-classical macroeconomics,” Gordon [Ibid., 1117] is throwing out Keynes’s baby with the NCE bathwater!

Mankiw [1990, 1647] agrees that the NKE research agenda is solely a response to Lucas. In NCE, short-run unemployment is the result of “imperfect information regarding prices” [Ibid., 1652] as agents confuse movements in the price level with changes in relative prices. Consequently, involuntary unemployment is at most an ephemeral phenomenon due to incorrect expectations. Unemployment can never persist [Mankiw, 1990, 1652-3] in the long run as long as rational expectations are assumed (since by definition, persistent expectational errors are not possible).

NCE explanations of unemployment, according to Mankiw, are at odds with the “common presumptions...and the strong prior beliefs of many economists... [which] are unlikely to be plausibly reconciled with observed economic fluctuations” [Ibid., 1653-4]. Apparently, the Latter Day NKE Saints reject the inevitable logical conclusion of “theory” based on classical axioms as inconsistent with their native good judgment (i.e., prior beliefs). For example, Gordon exclaims that “any satisfactory explanation of the business cycle that warrants the label Keynesian must incorporate not just price stickiness, but in addition some element that explains the evident unhappyness of the employed in recessions and depressions” [1980, 1138]. Gordon’s comment must tell him that during a recession even the remaining employed experience an unpleasantness as they fear for their jobs. Moreover, unemployed workers neither prefer the enforced leisure compared to the dignity of working for a living, nor are they confusing general price movements for relative price changes.

In uncritically accepting Lucas’s view of the scope of macroeconomics, NKE is embracing the classical axioms as the basis of an economic theory which holds that non-market economies are the instrument of coordination. The common sense beliefs of the New Keynesians, therefore, require scientific justification in terms of market failure “most frequent in Keynesian theories is the failure of wages and prices to adjust instantaneously to equilibrate supply and demand (i.e., clear the market)” [1990, 1654]. Mankiw declares the NKE research agenda is to develop “a cogent theoretical foundation of hard-headed microeconomic reasoning” to explain the failure of market wages and prices to adjust instantaneously “to clear the market” [Ibid., italics added]

Woud Keynes be a New Keynesian?

NKE proponents are continually invoking the need for a “hard-headed” approach by which they mean an analysis that is compatible with the fundamental postulates of NCE. Since NKE and NCE are founded on the identical axiomatic base, the basic litmus test of NKE is the presumption of some ad hoc constraint to the classical aggregate supply conditions to temporarily fix nominal magnitudes so that the classical neutrality of money axiom is, in the short run, ineffectual.

If fictitious due to coordination failures are the sole basis of any so-called Keynesian research agenda, then these “Keynesians” are in the position of a defendant trying to respond to the classic “when did you stop beating your wife?” cross-examination. By claiming that NKE research is limited to finding “barriers to the full adjustment of nominal prices” [Gordon, 1990, 1135], the NCE presumption that a free, unregulated market with flexible prices and coordination failures is “for the best in the best of all possible worlds provided we will let well enough alone” [Keynes, 1936; 93] is implicitly accepted. If, as a matter of faith, the axioms of classical economics are believed to be the basis for all theory, then the only substantial difference between NKE and NCE analysis for policy purposes is the time it takes to remove all impediments to coordination so that all nominal values (wages, prices, exchange rates, etc.) are fully flexible. In that long economic period, the economic system will achieve the Panglossian, Pareto-efficient equilibrium where everyone stops beating their wives. After all, in the long run we are all dead, no one can lift a hand to strike one’s spouse!

It is only common sense that prevents New Keynesians from accepting the NCE fable that efficient markets will bring the capitalized value of the future’s Panglossian bliss to today’s economic markets. To prove their scientific manhood, however, New Keynesians are forced to “squeeze out” the special cases within the microfoundations of NCE that Lucas used to circumscribe the acceptable research agenda for macroeconomics. To step outside the Lucas-drawn boundaries would be to expose New Keynesians to charges of non-scientific thinking by the Economics Establishment.

New Keynesians envy the attitude of "hard-headedness" associated with the intellectually prestigious results forged in the axiomatic evens of the New Classical analyses. New Keynesians seek to demonstrate that their heads are just as hard as those of New Classical economists. They attempt to forge different results from the same axiomatic evens and thereby deflect attention from the nakedness of their soft hearts (or what Mankiw calls their "strong prior beliefs") which recognize that, in the real world, the unemployed who lose their jobs during recession are neither maximizing intertemporal utility in the labor market nor confusing absolute price changes for relative price changes. Ad hoc constraints (fictitious induced by market supply failures) are the NKE spinners thrown into the NCE axiomatic machine to show that short-run fluctuations in employment and output are not the "Pareto-efficient responses of the economy to changes in taste and technology, but rather some sort of market failure on a grand scale" [Mankiw, 1990, 1654]. Hiding behind the fig-leaf claim that NCE axioms are the only foundation for scientific inquiring minds, New Keynesians profess that their "hard heads" have developed a "tough-minded economy for a just society" [Blinder, 1987].

Ever since Ricardo, mainstream economists have believed that classical economics is the general theory, where full employment is the inevitable long-run outcome. Keynes noted that true classical believers such as Ricardo "offered us the supreme intellectual achievement, unattainable of weaker spirits, of adopting a hypothetical [classical] world remote from experience as though [as if] it was the world of experience and then living in it consistently" [1936; 192]. From time to time, however, there were
some orthodox economists who still accepted classical axioms as the foundations of
"theory" yet whose native good judgment told them that, even in the competitive
environment of the nineteenth and early twentieth centuries, unemployed workers
were not enjoying voluntary leisure. These pre-Keynesian "reasonable" classical econ-
omists attempted to explain unemployment as short-run maladjustments due to wage
and price rigidities, frictions, erroneous expectations, etc., which lengthen the time
until free markets produce the long-run full-employment equilibrium outcome. Those
who tried to explain unemployment in this manner were, "weaker spirits" whose
"common sense cannot help breaking in — with injury to their logical consistency"
[ibid.].

In order to demonstrate that Say's Law "was not the true law relating the aggregate
demand and supply functions" Keynes [ibid., 26] believed it was essential to demon-
strate that even in the absence of all market imperfections, underemployment equilib-
rarium was possible.6 Otherwise, policy prescriptions would get hung up on how to remove
the market failures which prevent price flexibility rather than focusing on the essential
nature of an entrepreneurial, money-using economy where insufficient aggregate de-
mand was a sufficient cause of the system's failure "to provide full employment" [ibid.,
372]. Aggregate supply constraints per se are neither necessary nor sufficient to
demonstrate an underemployment equilibrium. The fundamental cause of unemploy-
ment is not rooted in imperfect competition. Unemployment is a structural fault of a
money-using, laissez-faire market system.

New Keynesians, however, stress only aggregate supply factors — not demand — as
the sole cause of unemployment equilibrium. What Mankiw and Gordon claim is the
essence of the New Keynesian research agenda, therefore, is conceptually unnecessary
in order to explain Keynes's analysis of unemployment. NK economists divert attention from Keynes's
logical analysis of the necessary and sufficient conditions for the existence of underem-
ployment equilibrium in both the short and long run and the policy decisions necessary
for restoring and maintaining full employment in an economy in recession.

New Keynesians are unwilling to challenge Lucas's argument that demand per se can
never be insufficient with perfectly flexible supply conditions. Only postulated con-
straints on Lucas's supply analysis can short-circuit the power of supply to create its
own demand. In the absence of such "ad hoc" constraints in a Lucas world — one which
Lucas [1981, 663] describes as "a patently artificial world" — Say's Law would prevail. If
New Keynesians read Keynes's analysis of aggregate supply and demand, however, then
they would realize they can not claim Keynes as an intellectual forefather.

KEYNES'S TREATMENT OF AGGREGATE SUPPLY AND DEMAND

If we accept the NKE agenda, then a more honest title for Keynes's book would have
been The Special Case Theory of Employment, Interest and Money: Why Market
failures Prevent Flexible Wages and Prices From Doing Their Job. All the definitions of
NKE lay the emphasis on some difference between classical supply conditions and the
supply environment assumed by NKE. Keynes, on the other hand, claimed that his aggregate
supply function "is simply the age old supply function" [1937, 513] derived from Marshall's "ordinary supply curve" [1938, 45] and which can be associated with any
degree of competition including pure competition.6 In a further explanation to Dennis
Robertson, Keynes stated that he spent so little time developing aggregate supply
conditions because the aggregate supply function "is only a reacquaintance of ear old friend

the supply function. Virtually the whole rest [of The General Theory]...is, therefore,
directed to discovering what determines D [aggregate demand]" [1973, 513]. In other
words, Keynes insisted that the assumed conditions of supply were not what distin-
guished his approach from the "old" classical analysis of his day. The fundamental
difference was that Keynes recognized the possibility of an "insufficiency" of demand no
matter what the conditions of supply [1936, 33].

What is more important, from a truth in labeling history-of-thought context, Keynes
specifically denied that fixed nominal wages and prices were a necessary condition for
underemployment equilibrium.8 One complete chapter of The General Theory dem-
strates why the existence of instantaneously flexible money wages can not assure full
employment — even if no coordination failures exist. "For the Classical Theory has been
acquiesced to rest the supposedly self-adjusting character of the economic system on
the assumed fluidity of money-wage; and, when there is rigidity, to lay on this rigidity
the blame of maladjustment... My difference from this theory is primarily a difference of
analysis" [ibid., 257]. In the fourth section, it will be shown that Keynes's use of wage
units to measure his aggregate functions brings to the foreground this "difference of
analysis" by requiring the feedback effects of flexible wages be traced on components of
aggregate demand. These feedback effects had nothing to do with coordination failures!

Keynes's chapter 19 analysis demonstrates that complete wage (or price) flexibility
was neither a necessary nor sufficient condition for full-employment equilibrium.
Keynes's two major conclusions regarding the effect of instantaneously flexible money
wages — even in condition of purely competitive supply — are that "there is, therefore,
no ground for the belief that a flexible-wage policy is capable of maintaining a state of
continuous full employment" [ibid., 267] and that "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" [ibid., 269].

Consequently, anyone selling New Keynesian theoretical pasties, in which the fixity
of nominal wages or prices is the main ingredient, to students (or unequated policy
makers) would not get a franchise to use his name from the originator of Keynesian
economics.

KEYNES ON EXPECTATIONS AND POLICY IRRELEVANCE

Keynes recognized the possibility of policy irrelevance long before Lucas. In the
chapter on long-term expectations, Keynes warned that economic prosperity "is excess-
sively dependent on the political and social atmosphere which is congenial to the
average businessman. If the fear of a Labour Government or a New Deal depression
enterprise" [ibid., 162] then policy interventions may be offset by entrepreneurial
reactions. The basis for Keynes's conclusion that policy actions can induce offsetting
private expectations about the future, however, is just the opposite of Lucas's on this
very practical point. For Keynes, "human decisions affecting the future... cannot
depend on strictly mathematical expectations, since the basis for making such calcula-
tions does not exist; and that is our innate urge to activity that makes the wheels go
round" [ibid., 162-3, italics added] rather than rational expectations and flexible wages
and prices.
It is this crucial difference on how expectations are formed in an uncertain world that distinguishes Keynes and Keynes's economic analysis from both Old and New Classical economists and Old (i.e., Neo-Classical synthesis) and New Keynesians. Elsewhere, (Davidson, 1964; 1986; 1991) I have developed Keynes's view on expectational formation in an uncertain world and the implications of such expectations for the long-run non-neutrality of money in an entrepreneurial market-oriented economy. Such an analysis provides a more general theory than one where the classical axioms of money neutrality and ergodicity-induced rational expectations characterize a special case. "The characteristics of this special case assumed by the classical theory happen not to be those of the economic society in which we actually live with the result that its teaching is misleading and disastrous if we attempt to apply it to the facts of experience" (Ibid., 3). To the extent that New Keynesians allow Lucas's "patently artificial world" to operate "as if" it was the general case and hence circumscribe the macroeconomic research agenda, the policy implications derived from such research can be misleading and disastrous to the world of experience.

WOULD A GOVERNMENT POLICY TO END COORDINATION FAILURE PROMOTE FULL EMPLOYMENT?

We have seen that the concept of coordination failure is the basis of the new New Keynesian research agenda. In fact, Gordon (1990, 1139) insists that "coordination problems represent the core problem in economics." Colander introduces "coordination" as an additional production factor input to explain NKRE. Following this logic, these "coordination failure" New Keynesians should support all policies which promote better coordination.

For example, at a 1982 press conference, President Reagan presented a proposal for solving the unemployment problem that the economy was approaching 10.7 percent of the labor force. In response to a question regarding what could be done to reduce unemployment, the President stated that the unemployment problem could be solved if each business firm immediately hired one more worker. The solution was, of course, statistically accurate as there were more operating firms than unemployed workers.

New Keynesians who attribute unemployment solely to a coordination failure should have applauded Reagan's clarion call for the coordinated increased hiring by all private enterprises. Keynes, on the other hand, would never have endorsed Reagan's Faur Edition Supply-Side solution to the unemployment problem. Unless the employment of these additional workers created an additional demand (at a profitable price) for the increased output produced by the newly employed (additional supply-creating pari passu additional demand), however, it would not be profitable for entrepreneurs to hire additional workers.

WHAT ABOUT MONEY AND NEW KEYNESIAN ANALYSIS?

Neither Parkin, Mankiw, Colander, nor Gordon associated the existence of unemployment directly and explicitly with the use of money per se in any market system. The rationale for this textual omission is suggested by Blanchard (1990). Obviousness to what Keynes wrote, Blanchard asserts at the very beginning of his paper "economic theory does not lead us to expect" that the existence of money per se can cause fluctuations in output and employment; indeed it (theory) holds that, with flexible prices, money should be approximately neutral (1990, 790). In other words Blanchard accepts the classical neutrality of money axioms as basic to all economic theory. Keynes, however, explicitly rejected the classical postulate of the short-run and long-run neutrality of money, even with flexible prices as a fundamental tenet of his General Theory (Keynes, 1930).

Blanchard, like the others, sees the NKRE agenda solely as "why prices do not adjust fully and instantaneously to nominal money...to focus on the reasons for and the implications of imperfect price adjustment" (1990, 780). Blanchard insists that all NKRE models must be based on "hard-headed" microfoundations that "impose long-run neutrality of money as a maintained presumption. This is a matter of faith, based on theoretical considerations rather than on empirical evidence" (Ibid., 328).

In 1983, on the other hand, Keynes specified his research agenda when he wrote,

> In my opinion the main reason why the problem of crisis is unsolved, or at any rate why the theory is unsatisfactory, is to be found in the lack of what may be called a monetary theory of production. An economy which uses money as a neutral link between transactions in real things and real assets and does not allow it to enter into motives or decisions might be called — for want of a better name — a real exchange economy. The theory I desiderate would deal... with an economy in which money plays a part on its own and affects motives and decisions and is, in short, one of the operative factors in the situation, so that the course of events cannot be predicted either in the long period or in the short, without a knowledge of the behavior of money between the first state and the last.

And this is what we ought to mean when we speak of a monetary economy..."Booms and depressions are peculiar to an economy in which money is not neutral...I believe the next task is to work out in some detail a monetary theory of production...that is the task on which I am now occupying myself in some confidence that I am not wasting my time. (1973, 486-10, italics added)

In contradistinction to the New Keynesian assumptions, Keynes believed that there is a fundamental analytical difference between a money-using production economy (where even "in the long period" money is not neutral) and the real exchange economy (where the long-run neutrality of money is a matter of faith). In Keynes's monetary theory of production, the absence of flexible wages and prices is not the fundamental criterion upon which the nonneutrality of money depends. Even if prices are perfectly flexible in the long period the existence of money per se can cause "booms and depressions". In Keynes's general theory, there is no self-adjusting mechanism built into a laissez-faire market system that assures the clearing of all markets including the labor market if only nominal wages and product prices are perfectly flexible.

If the absence of instantaneous and full price adjustments is not a necessary condition for underemployment equilibrium, then one might ask what are the essential conditions for unemployment in Keynes's analysis and why is his analysis a more general theory than the classical analysis? A response to this query will be provided in the fourth section infra. First, however, it should be emphasized that the absence of any of Keynes's beef in NKRE is important, not only from a history of economic thought — truth in labeling — prospectus, but also in terms of determining public policy.
SO WHAT IF THERE IS NO KEYNESIAN BEEF IN NKE?

In presentations of an earlier draft of this paper to some audiences, one response often encountered was “So what if NKE has a different logical foundation than Keynes’s analysis? The NKE research would still exist in the literature even if they had taken an ephedrin more in keeping with a truth in labeling law, for example, NMCC — Non Market Clearing Classical Economics.”

Although a rose by any other name is still a (sweet smelling) rose, it does not follow that calling the foul smelling fruit of the ginkgo tree a rose will make it smell any better for policy making purposes. Since economists offer policy advice, they bear a responsibility to the public as well as to their students to refrain from using misleading labels for their policy nostrums.

The NKE and Keynes’s General Theory approaches have significantly different — and often conflicting — domestic and international policy implications for important economic questions facing the real world in which we live. Keynes argued that “the tacit assumptions of classical economics are seldom or never satisfied, with the result that it cannot solve the economic problems of the actual world” (1936, 378). If one builds an analysis on the classical axioms, then the only logical long-run role of government is to promote wage and price flexibility (including exchange rate flexibility). In the short run, New Keynesians can merely prescribe for curing unemployment and (1) a co-ordinator (e.g., Reagan’s 1982 suggestion for curtailing unemployment); and (2) an instrument for encouraging competitive market solutions to all our economic maladies.

Keynes, however, believed that one of the “outstanding faults of the economic system in which we live” is “its failure to provide full employment” (Ibid., 372). Unemployment involves the “public scandal of wasted resources” (Ibid., 380-81). Nevertheless, Keynes’s “theory is moderately conservative in its implications” (Ibid., 377) in that in the long run “[a]lthough the necessity of control controls to bring about an adjustment between the propensity to consume and the inducement to invest, there is no more reason to socialise economic life than there was before” (Ibid., 379). In other words, we should not permit the public scandal of a waste of resources in order to rely on a competitive market solution to assure a full-employment level of effective demand — even in the long run. Government has a permanent role in adjusting aggregate demand to its full-employment potential without getting bogged down in the nitty-gritty of production planning. The latter is best left to the private sector after government has assured that there is never a significant lack of aggregate demand (Ibid., 380-81).

NKE, on the other hand, implicitly accepts the “public scandal of wasted (unemployed) resources” as an inevitable short-run outcome of the inherent fixities and lack of perfect coordination in an imperfectly competitive capitalist system. Colander (1993, 445) for example, hypothesizes a situation with two full-employment equilibria — one with 400 widgets produced and one with 1,000 widgets produced. He hypothesizes that if the economy gets stuck at the 400 output level, then any institutional coordinating rearrangement that limits wage and price flexibility while increasing output to 400 widgets (due to a higher C in Colander’s production function) is preferred. Colander fails to explain, however, why once the higher C level is reached, the economy will not prefer to produce a full-employment level of 1,000 widgets. To assume the economy can not reach the 1,000 level of full employment at the higher C level is to assume away the demand problem by hypothesizing some unspecified barrier to full employment.

WOULD KEYNES BE A NEW KEYNESIAN?

By accepting the classical axioms, the long-run logic of NKE implies that prosperity is just around the long-run corner. Only short-run, unexpected shocks, for which a coordinated equilibrating reaction is not instantaneously available, prevent the system from maintaining continuous full employment.

What are the policy implications of this New Keynesian logic? Securing continuous full employment is unlikely — except in the most stationary of worlds that never experiences any shocks. A competitive, flexible price, laissez-faire system is the best of all possible worlds. The role for government should be to encourage more rapid wage and product price flexibility through freeing-up domestic markets and, in an open system, requiring exchange rate flexibility. There can be no permanent positive role for government fiscal policy, or cooperative regulatory policy in order to create and maintain a full-employment demand environment. Because of the postulates underlying NKE, the private sector can never suffer from a long-run deficiency in effective demand.

Clearly, the NKE prescription pill box contains medicines that Keynes would have labelled as dangerous to the health of the economic system in which we live. Moreover, Keynes would have argued that the NKE pill box does not contain the necessary medicine to insure a prosperous capital economy — in either the short run or the long run!

PROVIDING A TRUE GENERAL THEORY VIA A TAXONOMIC ATTACK ON SAY’S LAW

Keynes became convinced that the axioms of classical economics were too restrictive to explain why an economy might become mired in unemployment. By developing an expanded demand-category classification system requiring fewer classical axioms (Davidson, 1984), Keynes produced a more general theory than the classical analysis. As a result Say’s Law could be shown to be applicable only if one imposed additional axioms to produce a specific case of Keynes’s general theory. As we will demonstrate in this section, in the absence of the additional classical axioms, Keynes could demonstrate that Say’s Law “is not the true law relating the aggregate demand and supply functions...and therefore there is a vitally important chapter of economic theory which remains to be written and without which all discussions concerning the volume of aggregate employment are futile”[Keynes, 1936, 26].

Say’s Law specifies that all expenditure (aggregate demand) on the products of industry is always exactly equal to the total costs of aggregate production (aggregate supply) including gross profits. Letting D symbolize aggregate demand and Z aggregate supply, if

\[ D = f_1(N) \]

and

\[ Z = f_2(N) \]

then Say’s Law asserts that

\[ f_1(N) = f_2(N) \]
"for all values of $N$, i.e., for all values of output and employment" [Ibid., 26]. In other words, in an economy subject to Say’s Law, all costs of production incurred by firms (whether in pure competition or not) are recouped by the sale of output. There is never a lack of effective demand. The aggregate demand and aggregate supply curves coincide (see Figure 1). In a Say’s Law economy there is no obstacle to achieving the full-employment level of $N^*$ in Figure 1.

To challenge the applicability of Say’s Law, Keynes had to develop a model where the aggregate demand and aggregate supply functions, $f_1(N)$ and $f_2(N)$, are not coincident (see Figure 2). The equilibrium level of employment could be $N^*$ rather than the full-employment level of $N^*$. Keynes accepted the "age-old" classical supply function that could be associated with pure competition (or any degree of monopoly) as the micro-basis for the aggregate supply function of equation (2). The existence of monopolistic power in the product and/or the labor markets is, therefore, not a necessary condition for the existence of a barrier to full employment.

The existence of a possible less than full-employment equilibrium is due to the fact that the determinants of the aggregate demand function are not identical with the determinants of aggregate supply. Keynes specifically differentiated his theory from classical economics solely via the concept of aggregate demand which he split into two classes — i.e.,

\[ D = D_1 + D_2 = f_1(N) \]

where

\[ D_1 = f_1(N) \]

and

\[ D_2 = f_2(N) \]

$D_1$ represents all expenditures which "will depend on the level of aggregate income and, therefore, on the level of employment $N$" [Ibid., 26]. $D_2$ represents all expenditures not related to income and employment. Since classical theory does not recognize the possibility of a $D_2$ category, Keynes’s taxonomy provides an inherently more general theory, where the classical system is a special case where, among other things, $D_2$ is always equal to zero.

The axioms of ergodicity, gross substitution and neutral money underlie the expenditure decisions of utility maximizing agents in the classical model. Because of these postulates, the only reason people will exert the necessary disfountain effort to earn income (aggregate supply) is to spend it all (aggregate demand) on the only things that are expected to provide utility — the products of industry. In the simplest classical analysis, therefore, there can be no $D_2$ spending. Aggregate demand consists entirely of $D_1$ expenditures, and for utility maximizing individuals, the marginal propensity to spend on $D_2$ must be unity; Say’s Law implies $f_1(N) = f_2(N)$ and Figure 1 is relevant. To assure that Keynes’s second expenditure category, $D_2$, is neither an empty cell nor always equal to the "planned" savings function $f_2(N) = f_2(N)$, in either the short or long run, Keynes had to reject the ergodic axiom that presumes that the future is merely the statistical reflection of the past and therefore market price data are statistically
reliable indicators of future events. Rejecting the ergodic axiom means recognizing the existence of an uncertain future that can not be predicted reliably by analyzing past and current market price signals. In a nonergodic environment, expectations of future profits (the basis for investment spending, \( D_t \)) can not be statistically forecasted from existing market data. Neither can any current information regarding the "planned" savings function \( f_t(N_t) \) be used to provide the basis for formulating rational expectations regarding each future period's aggregate \( D_t \) spending in a nonergodic, uncertain world [Davidson, 1991]. In a general theory, therefore, expected future profitability of current investment projects can not be determined endogenously by the current propensity to save under past or current spending patterns. Rather, investment expenditures depend on the exogenous (and therefore, by definition, sensible but not rational) expectations of entrepreneurs, or what Keynes called "animal spirits".

Keyne's analysis is a more general theory than classical theory because (1) it requires fewer axioms and (2) it explicitly recognizes the possibility of two different classes of current demand for productive goods and services, with each class having some different and independent determinants. Classical analysis ultimately presumes that supply \( f_t(N_t) \) is the sole determinant of demand and therefore of identical demand so that all markets clear. The latter becomes "a special case and not...the general case" [Keynes, 1936, 3] where

\[
D_t = 0
\]

and

\[
D_t = f_t(N_t) = f_t(N_t + 0) = Z
\]

for all values of \( N_t \).

Keynes's most important task, however, was not merely to provide a general theory. Rather it was to demonstrate that "the characteristics of the special case assumed by classical theory happen not to be those of the economic society in which we actually live" [Ibid, 4]. In other words, Keynes had to demonstrate that even if \( D_t = 0 \), the \( D_t \) function would not be coincident with his macroanalogue of the age-old supply function. To accomplish this, Keynes dropped the classical axioms of gross substitution and money neutrality. This permitted utility maximizing agents to withhold some portion of their aggregate income from the purchase of the products of industry in the manner of the classical theory. The marginal propensity to spend of \( D_t \) on currently produced goods and services is less than unity.

Instead of planning to spend all of their aggregate income on the products of industry, self-interested agents might purchase (with their savings) liquidity by possessing money. Liquidity implies the ability to discharge one's contractual obligations when they come due. In an economy that uses money contracts to hire inputs and organize production and exchange, only money can discharge contractual obligations under the civil law of contracts. (In a civilized society where slavery is illegal, enforcement of labor employment contracts in real terms is not permitted.) The ability to be liquid requires holding sufficient money (or other liquid assets that are readily resalable in a well-organized, orderly spot market for money) to meet all known upcoming contractual obligations plus, in an uncertain world, sufficient liquid assets to meet currently unknown but potential future contractual obligations.

The "attribute of liquidity", Keynes [Ibid., 241, Note 1] insisted required that money and other liquid assets had to be nonproductive and non-substitutable for productive goods. As long as the possession of liquidity provides agents with utility, then the mere existence of non- productive liquid assets for which (for liquidity purposes) productive goods are not good substitutes is a necessary and sufficient condition for involuntary unemployment equilibrium to develop whenever private sector demands for additional liquidity out of their full-employment income exceed planned investment \( D_t \) spending. Or, in the words of Hahn, involuntary unemployment equilibrium requires demand conditions such that people can find "resting places for savings other than reproducible assets" [1977, 31].

In Keynes's general theory the demand for liquidity and the existence of a nonproductive supply of money for which productive durables are never a good liquidity substitute assures a nonneutral monetary system, even if prices are completely flexible. "Unemployment develops, that is to say, because people want the noon; — men cannot be employed when the object of desire (i.e., money) is something which cannot be produced and the demand for which cannot be readily choked off" [Keynes, 1936, 236] and not because imperfect competition creates a nonflexible price environment.

Assume that the gross substitution between nonproductive liquid assets (including money) and productive goods for liquidity purposes is approximately zero [Keynes, 1936, Ch. 17; Davidson, 1984]. If the demand for liquidity increases, then the induced rise in the relative price of liquid assets can neither induce employers to hire workers to produce more liquid assets including money nor induce demanders of liquidity to accept the relatively cheaper productive (nonliquid) goods instead. In other words, the existence of nonproductive and nonsubstitutable liquid assets (including money) for which productive goods are not a good liquidity substitute can affect employment — in both the short and long run. These essential properties of liquid assets are independent of the degree of competition, price flexibility and contraction failures .

Thus, a general theory of a monetary economy which emphasizes liquidity needs in an uncertain world and therefore rejects the axiom of nonneutral money implies that

\[
D_t = f_t(N_t) \neq f_t(N_t + 0)
\]

whenever that portion of income that people earn that is not spent on productive goods — i.e., that is used instead to demand nonproductive and other liquid assets as a store of value (saved). By proclaiming a "fundamental psychological law" associated with the detailed facts of experience "where the marginal propensity to consume was always less than unity," Keynes [1936, 96] fashioned the possibility that equation (8) was applicable to the "facts of experience." If the marginal propensity to consume is always less than unity, then \( f_t(N_t) \) can never coincide with \( f_t(N_t + 0) \). Even if \( D_t = 0 \), equation (9) holds and Say's Law is not applicable to "the economic society in which we actually live" [Ibid., 3].

CONCLUSION

If economists would only take up the challenge of Keynes's revolutionary general theory and investigate the properties of a system of microeconomic demand and supply functions that throw out the axioms of ergodicity, ubiquitous gross substitutability, and nonneutral money, then a truly New Keynesianism — dare I call it Post Keynesian economics — could be developed which could again permit economists to provide useful and realistic guides to both micro and macroeconomic policies. This would be a New Keynesianism that Keynes could readily endorse.
EASTERN ECONOMIC JOURNAL

Unfortunately, the moral of the history of the development of New Keynesianism vs. New Classicalism when compared to the dichotomy of views in the Economics Rethinking between old classical economists such as Ricardo and other "weaker spirits" before 1936 can be summed up in a quote from Dennis Robertson who wrote "Now as I have often pointed out to my students, some of whom have been brought up in sporting circles, high brow opinion is like the banned hare; if you stand in the same place, or nearly the same place, it can be relied upon to come around to you in a circle" [1936, 81]. No wonder mainstream economists provide policy advice which does not differ significantly from that offered by classical economists and their weaker spirit brethren more than 60 years ago. No wonder that more than a half-century after Keynes published his General Theory, the world's major economies are immersed in ubiquitous unemployment conditions. Given the research agendas of mainstream economists, no wonder economies has again become the dismal science.

NOTES

1. Our primary consumers are students who, by definition, see looking to the preachers of economics to tell the truth.


3. Parkinson's old and new definitions of NKE are designed to contrast with his benchmark old and new definitions of NCE. This implies that NKE is the general theory and NKE is a special case. NK economists are a subset of Classical economists who accept the actions of NCE as the foundation for "theory". NKE adds onto the classical system one or more of the supply constraints in terms of friction and coordination failure to explain short-term unemployment and aggregate output fluctuations. In the long run, as prices and wages are flexible and coordination failure is nonexistent, free markets will find the classical solution.

4. Calander claims that improvements in "coordinative" entries, various, increase output, i.e., ZCAVAC. Any increase in coordination might lessen actual unemployment while it can, by construction, result in higher marginal physical product of labor and capital. Calander argues that a loss of long-term unemployment is a more coordinated production function can be socially optimal to full employment at a less coordinated level. While I can sympathize with Calander's attempt, I do not believe it captures Keynes's logical analysis. I think it diverges attention from the fundamental causes of underemployment equilibrium.

5. As the quote from Blanchardton page 444 (aq/). chanced societies are accepted by all "theorists" as a matter of fact.

6. When Banko and Terasih provided empirical evidence to suggest that wage movements were incompatible with the classical theory of aggregate supply, Keynes [1936] noted that he had accepted the classical supply curve as a generalization that had widespread support, even though this made his task more difficult. He was willing to concede "a little to the other (unilateral)?" [1936, 90] in order to emphasize that the unemployment theory laid basically in a lack of effective demand.

7. Keynes argued that in a general one long-period unemployment equilibrium can be a normal outcome of a market economy, even with freely flexible prices and free competition. This was not because Keynes thought that real world numbers were necessarily congruent and possessed expectations and freely flexible prices. Rather Keynes [1936, 249] noted that in the long run not require any "degree of competition" as a given. Hence his aggregate supply curve could be formulated in terms of purely competitive supply, or in terms of any constant degree of monopoly markup over the supply schedule of the competitive firm. For the measure of the degree of monopoly see

8. [Keynes, 1936, 249] noted the same whether or not money wages, etc. are liable to change? [Keynes, 1936, 27, index added].

9. A twenty-page pages of 9 percent of the entire text.

10. Any market failure is ultimately due to no single private agent having an incentive to respond fully "unless it believes that all other agents will do likewise" [Friedman, 1960, 113].

11. For a detailed analysis see Davidson [1984] and pages 457-81 (aq/).