

Understanding Keynes: A Response to Spahn's Review of *John Maynard Keynes*

*Paul Davidson**

»In Economics you can not convict your opponent of error, you can only convince him of it. And even if you are right you cannot convince him [...] if his head is already so filled with contrary notions that he cannot catch the clues to your thought which you are trying to throw to him« (attributed to Keynes by Austin Robinson in his inaugural Keynes lecture to the British Academy on 22 April 1971)

Peter Spahn's review of my latest book, entitled *John Maynard Keynes* (2007), is an excellent illustration of a case where the reviewer's head is already filled with so many »contrary notions« that he can not catch the clues to Keynes's analytical framework that I am presenting to the reader of my book. Spahn recognizes that the book »is worth reading«, but he complains that the book has »many repetitions«.

I admit that by deliberate repetition I attempted to emphasize concepts of Keynes's general theory that (1) are contrary to today's mainstream macroeconomics and (2) are ignored or never even recognized by other interpreters of Keynes. It is apparent, however, that despite these reiterations, Spahn failed to comprehend some important notions that are essential to Keynes's analytical framework. These conceptions include: (1) the essential properties of money and liquid assets, (2) Keynes's aggregate demand *and* supply analysis of effective demand derived from Marshallian supply-demand analysis, (3) the existence of non-ergodic uncertainty conditions which means that there does not exist today information about future outcomes, i.e., today's decision makers can neither know or learn about the future but must rely on »animal spirits« to make crucial decisions.

In the following I will respond to specific Spahn's criticisms using these concepts that are fundamental to understanding Keynes's general theory.

No Mention of Minsky, Kregel or New Keynesian Theory

Spahn claims I have become »a little more solitary« in my discussion of Keynes's analytical framework for I did not even quote economists that Spahn believes are »fellow combatants« in the battle »to propagate the Post Keynesian School«. Spahn suggests that the two »fellow combatants« that I omitted are Hyman Minsky and Jan Kregel.¹ Furthermore Spahn com-

* New School, New York. This response refers to a review by Peter Spahn in INTERVENTION, European Journal of Economics and Economic Policies, 5(1), 207–208.

1 Since many economists know that Jan Kregel was a student of mine and I was his dissertation

plains that New Keynesian theory »is mentioned in the index but actually not discussed«. Consequently, Spahn »gets the impression that Davidson feels to be the only legitimate expert of Keynes's economics«.

Why did I not discuss New Keynesian theory? At the very beginning of my book (Davidson 2007: 38) I quote a founder of the New Keynesian school who specifically claims that Keynes's

»*General Theory* is an obscure book. [...] [A]n outdated book. [...] We are in a much better position than Keynes to figure out how the economy works [...]. [There is] widespread acceptance of classical economics« (Mankiw 1992: 561).

Does Spahn really believe that in my book whose expressed purpose is to explain why Keynes is a »Great Thinker in Economics« I should clutter the pages (and the reader's mind) with a discussion of a theory that while it labels itself Keynesian, its leading New Keynesian proponent suggests that classical theory is better than Keynes's confused, obscure, and outdated views on the economy?

It is true that I do not cite Minsky in a book trying to explain Keynes's general theory of money, interest and employment. The primary reason for this omission is that although Minsky called himself a Keynesian and even on occasion a Post Keynesian, his theory is not based on Keynes's economics. If anything Minsky was a Kaleckian² or a New Keynesian³. Keynes, on the other hand, was a Marshallian who provided an aggregate supply and demand analysis as *the* basis of his »principle of effective demand«. Explaining why he wrote the *General Theory*, Keynes stated that where the

»aggregate demand function [...] is intersected by the aggregate supply function [...] [is] called the *effective demand*. [...] this is *the substance of the General Theory of Employment*, which it will be our object to expound, the succeeding chapters will be largely occupied with examining the various factors upon which these *two* functions depend« (Keynes 1936a: 25, second and third emphasis added).

In other words, Keynes's principle of effective demand relied on an analysis of both an aggregate demand function and an aggregate supply function.⁴ Keynes noted that under Say's Law the aggregate demand function was the equivalent of (and identical with) the aggregate supply function. Keynes argued that since Say's Law was not a *true law*, therefore econom-

supervisor, providing quotes from Kregel was unlikely to add additional credence to my analysis of Keynes in the minds of professional economists.

2 Elsewhere I (Davidson 2000) have explained there are major differences between Kalecki's theory and Keynes's *General Theory*.

3 In his *History of Post Keynesian Economics*, King (2002: 113) indicates that Minsky's »affinities were with new Keynesians«.

4 The appendix to Chapter 6 of my book demonstrates how Keynes's aggregate supply function and the consumption function component of the aggregate demand functions are built up from Marshallian micro demand and micro supply functions.

ics had to be rewritten to explain why aggregate demand was a different function from aggregate supply (Keynes 1936a: 26). In the *General Theory* Keynes emphasized the development of a separate aggregate demand function. Keynes did not spend much time on developing the aggregate supply function in the *General Theory*, not because it was unimportant; rather he believed »it is simply the age-old supply function« (Keynes 1935: 513) and therefore its composition was well known.

Accordingly, Keynes did not completely ignore the analysis of production that underlay the aggregate supply function. In fact, Keynes devotes an entire chapter of the *General Theory* to the inverse of the aggregate supply function which he labels »The Employment Function«. Keynes stated that this inverse of the aggregate supply function lends itself »to the problems of industry and output *as a whole* more easily than the ordinary supply curve« (Keynes 1936a: 281).

In his *History of Post Keynesian Economics*, King (2002: 113) noted that Minsky did not regard an »aggregate supply and demand analysis [...] as especially interesting or important. [...] [Moreover, Minsky] took no interest in the analysis of production«. ⁵ Since Minsky did not think Keynes's aggregate supply and demand framework interesting or important and since Minsky took no interest in the analysis of production, it should be apparent why I did not quote from Minsky in a book that attempts to clarify Keynes's revolutionary principle of effective demand. For, as Keynes's specifically argued in his chapter on the »Principle of Effective Demand«, and as I emphasize in Chapter 6 of my book, an aggregate supply and demand function analysis is the essence of Keynes's *General Theory*.

Finally I should mention that Minsky's analysis assumes that capitalist economies are inherently cyclically unstable. Yet Keynes was writing his general theory during a period where, for more than 15 years, the United Kingdom experienced double digit rates of unemployment – rather than cycles of boom and bust that Minsky believed are inherent in the economic system. Given this history of continuous high unemployment rates, it is obvious that Keynes's theory was developed to explain why capitalist economies could be stable even with significant unemployment over long periods of calendar time. Keynes once wrote to Joan Robinson:

»[y]ou must not confuse instability with uncertainty. It is true that the future [...] is uncertain but that does not mean that the present rate of interest or the present rate of exchange [are] in the technical sense unstable« (Keynes 1936b: 137).

But Minsky does link uncertainty with cyclical instability. For example, Minsky wrote: »without a cyclical perspective uncertainty is more or less an empty bag« (King 2002: 113).

5 King also recognised that Minsky's reliance on asymmetric information between bankers and investors »made Minsky an exogenous money man« (King 2002: 235). Keynes (1936a: 142) reacts negatively to what future New Keynesians would label »asymmetric information« when he notes that this real interest rate analysis can not be salvaged by the »expedient of supposing the prospective change [...] is foreseen by one set of people but not foreseen by another«. Here then is another reason for suggesting Minsky's economics is not that of Keynes.

Does Liquidity Preference Assume Rigid Prices?

Spahn does not understand my (and Keynes's) argument that rigid prices and/or wages is neither a necessary nor a sufficient condition for the existence of involuntary unemployment in a money using economy. As I explain in chapter 5 of my book, if the savings propensity exceeds investment spending plans at any level of income, then involuntary unemployment occurs as the excess of savings does not spillover into a demand for producible goods no matter whether prices are flexible or rigid. The resulting involuntary unemployment will occur as long as *liquid* assets (including money) possess the »essential properties« that Keynes spelled out in Chapter 17 of the *General Theory*. In other words, involuntary unemployment is the result of a liquidity problem and not the existence of rigid or even sticky prices.

Spahn, however, writes:

„[b]ut Davidson fails to mention that to preclude a demand spillover to producible goods one needs to assume rigid prices so that the demand for money cannot rise in liquidity units, i.e. in real terms.«

This assertion suggests that Spahn believes that involuntary unemployment can occur only if the demand for money is discussed in terms of real units rather than nominal units. This Statement requires Spahn to believe in the neutral money axiom and is, therefore, clearly a misunderstanding of Keynes's analytical framework. As Keynes (1933: 408–409) wrote in his essay entitled *A Monetary Theory of Production*:

»An economy which uses money but uses it as merely a neutral link between transactions in real things and real assets [...] might be called a *real exchange economy*. The Theory which I desiderate would deal, in contradistinction to this, with an economy in which [nominal] money plays a part on its own and effects motives and decisions and is, in short, one of the operative factors. [...] And this is what we ought to mean when we speak of a *monetary economy*«.

Despite my repeating numerous times in my book that Keynes's analysis requires rejecting the neutral money axiom of classical theory, Spahn, apparently, never caught this clue to Keynes's analysis. Spahn's head appears to be filled with the contrary notion that liquidity must involve real units and therefore money in nominal units is neutral. Consequently, he has not understood pages 51–55 of my Keynes book which explores the implications of Keynes's chapter 17 on the »essential properties« of money. Keynes (1936a: 241 n.1) insists that any asset that possesses »the attribute of liquidity« must have two essential elasticity properties: (1) the elasticity of production is zero (or as I put it in my book, money does not grow on trees), and (2) a zero elasticity of substitution between liquid assets and producible goods.

If money grew on trees then the unemployed could always be hired to harvest the money tree if the demand for money increases at the expense of the demand for producibles. If, however, money is non-reproducible, then if the demand for savings in the form

of money (or other liquid assets) increases while the demand for producibles declines, then there can be no re-employment of labor laid off in the producibles industries to harvest non-existent money trees.

Furthermore, if people want to save more out of income and buy fewer producibles, then the price of money (or liquid assets) would rise relative to the price of producibles. If the elasticity of substitution between producibles and liquid assets is zero, then even with a relative rise in the price of non-producible liquid assets, this demand for non-producibles can not spill over into a demand for producibles even if prices are flexible (Davidson 2007: 51–55).

If one accepts Keynes's essential properties analysis, then Spahn is incorrect in his assertion that »to preclude a demand spillover to producible goods one needs to assume rigid prices so that the demand for money cannot rise in liquidity units, i.e. in real terms.«

All that is necessary is to assume the two essential properties apply to nominal units of money (as they obviously do in the real world of experience). When people's fear of the uncertain (non-ergodic) future increases, income earners will try to increase their savings (i.e., reduce their consumption out of any level of income). Consequently there will be fewer purchases of producibles at any income level as income earners try to increase savings to use to purchase additional liquid non-producible assets (including money). This hypothesized increased demand for liquidity will not spill over to a demand for the products of industry – even in the absence of rigid prices in the system.

Can fair minded readers deny that when they save out of current income, that saving takes the form of either holding more money (currency or bank deposits) or other liquid financial assets traded in well organized and orderly financial markets (see Davidson 2007: chapter 7)?

Spahn also suggested that in my »solitary« approach I ignored Frank Hahn's (1977) demonstration 30 years ago, that even in a barter economy if there is savings in a non-reproducible asset all markets do not necessarily clear. I did, however cite Hahn's analysis on p. 53 of my book where Hahn demonstrates that not only must savings take the form of non-producible assets (i.e., the elasticity of production is zero) but that these non-producible assets are the ultimate »resting places« for savings (i.e., their elasticity of substitution is zero). Hahn's (1977: 39) argument appears to suggest to Spahn that any non reproducible asset allows the choice between employment inducing and non employment inducing demand and therefore one need not have money (or liquidity) in the system. Thus, Spahn was misled into thinking solely in terms of real units of liquidity.

Nevertheless as I argued on pages 50–51 of my book, all durable real assets (whether reproducible or not) have very high carrying costs (as well as transaction costs) relative to the carrying and transaction costs of money and all other liquid financial assets. Accordingly, if money and other liquid financial assets exist, these liquid assets are less costly to hold and therefore are *always preferable alternatives* to durable (illiquid) real assets as time machines to move savings into the indefinite future. Accordingly, the message of Keynes (and in Davidson 2007) is that any economy that uses money and money contracts to organize

production and exchange processes will store savings in nominal money and other nominal units of liquid assets, rather than in real illiquid durable assets.

In sum, as I reiterated several times in my book, in chapter 17 Keynes specifically indicated he is inquiring into »the peculiarity of money« and »[t]he money [not real] rate of interest – [...] [which he reminds] the reader – is nothing more than the percentage excess of a sum of money contracted for forward delivery«.

Keynes's analysis has nothing to do with liquidity in real units and the real rate of interest!⁶ As long as an »essential property« of non-producible money is a zero (or negligible) elasticity of substitution, then neither Keynes, nor I, nor Hahn need to assume rigid prices (as the above quote from Spahn asserts), to preclude a demand spill over to producible goods! And that is, of course, what I point out (Davidson 2007: 53) when I write that Hahn asserted that even with a system of flexible prices, unemployment can develop whenever there are »resting places for savings in other than reproducible assets« (Hahn 1977: 31). In making a wrong assertion regarding the need for »rigid prices« to prevent a liquidity spillover to producible goods, it is clear to me that Spahn fails to understand why Keynes's theory was revolutionary. Instead Spahn, like most New Keynesian theorists, seems to be assuming that Keynes's theory is merely a variant of 19th century classical theory where money is neutral, at least, in the long run. Even in the 19th century, however, classical theorists claimed that in the absence of flexible wages and prices, unemployment can develop in the short run. Consequently, if Keynes's involuntary unemployment requires the assumption of fixed prices, then there is nothing revolutionary about Keynes's analysis.

Unfortunately, Spahn's emphasis on rigid prices to cause involuntary unemployment can mislead readers into believing that the unemployment problem is due to labor unions refusing to lower money wages and/or monopolists refusing to lower prices. From a practical point of view, Spahn's position suggests that the current high unemployment rate in Germany and elsewhere is the fault of workers failing to accept a lower market clearing money (real?) wage! Nothing could be further from the truth. Today's high unemployment rates are related to problems involving money, liquidity, and failing financial markets! That is the message of Keynes's revolutionary theory – and that is the message that is suppressed by Spahn's failure to correctly interpret my book.

Modern Debate on Learning in Macroeconomics

Spahn complains that I did not »address the modern debate about learning in macroeconomics«. This lamentation is further evidence that Spahn's mind is full of contrary notions that he can not comprehend the importance of Keynes's uncertainty emphasis as a rejection of the classical ergodic axiom. As I note in my book, the correct way to *know* with statistical reliability any future outcome of any decision made today is to statistically analyze a sample drawn from the future. Since that is impossible, theorists who claim people engage in optimal decision making over time must assume the ergodic axiom. Under this

6 Keynes explains why the real rate of interest is not relevant on page 142 of the *General Theory*.

axiom, probability distribution functions can be calculated using past and current market data. The ergodic axiom⁷ presumes that these calculated probability functions, except for possible sampling error, are equivalent to those that would be calculated from future market data. Consequently, my table 7.2 (Davidson 2007: 101) explains why orthodox theorists, who implicitly or explicitly assume the ergodic axiom, believe either (1) that people already know the future either through rational expectations, or a Walrasian equilibrium system, or (2) the future is knowable, but because of some limitation on human information processing or computing power, the future is not always reliably known. This second case implies that by some *ad hoc* mechanism imposed by the analyst, the future can be learned (Davidson 2007: 104).

As I explained in the text of Table 7.2, if the classical ergodic axiom is not applicable, then there is no reliable information that exists today that can be utilized to provide a statistically reliable learning process about the future. I stated that in a non-ergodic environment: »the future is ontologically uncertain. Some aspects of the economic future will be created by human action today and/or in the future« (Davidson 2007: 101) and therefore *the future cannot be learned in advance*. If Keynes's analysis involves the concept of non-ergodic uncertainty, then it should be obvious that »the modern debate about learning in macroeconomics« is useless.

All Alone When Disputing Samuelson, Hicks, Friedman, and Others

Spahn claims that on behalf of Keynes I conduct a dispute with Samuelson, Hicks, Friedman among others. Unfortunately this is not true. What I demonstrate, using Samuelson's own words, is that he never comprehended the liquidity basis of Keynes's analysis of involuntary unemployment. Samuelson specifically stated that he did not understand Keynes's paradigm but he was »content to assume that there was enough rigidity in relative prices and wages to make the Keynesian alternative to Walras operative« (Davidson 2007: 181). In the case of Friedman, I demonstrate that Friedman specifically redefined savings to include the purchase of durable producibles goods in order to show that an increase in savings does not cause any unemployment (see Davidson, 2007: 55–57). In other words, what Veblen called »conspicuous consumption« becomes virtuous »savings« in Friedman's lexicon.

Finally, I point out that my dispute with Hicks ended decades ago. I do provide a brief history to indicate how I convinced Hicks to recant on his IS-LM system as a description of Keynes's *General Theory* and how he explicitly supported my view of Keynes's analytical system (Davidson 2007: 185–186).

7 As I point out in (Davidson 2007), the classical ordering axiom in deterministic models plays the role as the ergodic axiom does in stochastic models. Nobel prize winner John Hicks (1979: 113) has associated the violation of the »ordering axiom« with Keynes's liquidity concept.

Three Nobel Prize Winners Have Approved My Approach

Despite what Spahn labels my »solitary« position as an interpreter of Keynes, in my book I provide evidence that at least three Nobel Prize winners have accepted my argument. First I quote John Hicks where he wrote that I rationalized his suspicions about modern mainstream macroeconomics and rational expectations and that he should have labelled his »point of view as *non-ergodic*« (Davidson 2007: 186). Since I introduced the concept of non-ergodic stochastic processes into the economic literature (see Davidson 1982–83) as the basis for uncertainty, it is obvious that Hicks has accepted my argument.

I also quote Robert Solow who wrote me that he »admired that article of yours [i.e. Davidson 1982–83] on non-ergodic processes and thought it was right on the button« (Davidson 2007: 186). Finally I note that Nobel Prize winner Doug North has cited my articles in his emphasis on the importance on non-ergodic processes in his book *The Process of Economic Change* (North 2005: 19). With three Nobel Prize winners in my corner, am I really as solitary as Spahn paints me?

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