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**Paul Davidson and the Post Keynesian Alternative to the
Modern Macroeconomic Mainstream**

Af

Finn Olesen

Professor, cand. oecon, ph.d.
Institut for Økonomi og Ledelse
Aalborg Universitet
Fibigerstræde 4
9220 Aalborg Øst

finn@business.aau.dk

Abstract

For many years the Post Keynesians have argued that *The General Theory* published in 1936 is revolutionary in its content both in a theoretical as well as in a methodological sense. As such, the Post Keynesians argue, that this seminal work of Keynes ought to inspire the development of modern macroeconomics thereby making a Post Keynesian alternative available to modern mainstream thinking be it of a New Classical or a New Keynesian nature. Ever since the beginning of his career, as an economist, Paul Davidson has been one of, if not the most prominent spokesman of the need of presenting an alternative to the modern macroeconomic mainstream. In order to honour him, the present paper tries to present some of the most important elements of Paul Davidson's macroeconomic understanding.

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Introduction

As stated by e.g. de Vroey (2010), macroeconomic theory has undergone a huge transition since *The General Theory* was published in 1936. Today, the modern macroeconomic mainstream understanding may seem to hold a very strong position within the discipline of economics. However, the mainstream is not without alternatives. For many years, especially the Post Keynesians has challenged the core elements of modern mainstream macroeconomics¹. Seen from the perspective of many Post Keynesians, Keynes offered not only a new view on macroeconomics but he also gave some important guidelines to a new methodological understanding when he published *The General Theory*. As such, both in a theoretical as well as in a methodological sense Keynes was quite revolutionary when he challenged the neoclassical mainstream of the 1930s. Unfortunately, however, this is largely unrecognised by members of the modern macroeconomic mainstream establishment. As one of the most famous and persistent spokesmen of the legacy of Keynes, Paul Davidson stands out as one of the most unique Post Keynesians for decades. Seeing himself as a ‘Keynes-Post Keynesian’ as stated in Holt et al. (1998), Davidson, being almost of the same age himself as *The General Theory*, has repeatedly argued that to be a true Post Keynesian you have to acknowledge the fact that the basic theoretical as well as methodological understanding in Post Keynesianism has to be based on the writings of Keynes especially of course *The General Theory*; see for instance the biography on Keynes that Davidson published in 2007. Furthermore, as a ‘Keynes-Post Keynesian’, Davidson has tirelessly argued in almost all of his writings that the right focus of the macroeconomic analysis ought primarily to be on the rather complex processes of adjustment in an entrepreneurial modern monetary economy of production in which money and money contracts plays a very crucial role. Therefore, due to the existence of a fundamental kind of uncertainty you have to accept that the macroeconomic system functions in a non ergodic way; that is the system is an open, changeable and path dependent social system.

However, Davidson has done more than just to criticize the mainstream macroeconomic understanding. He has also tried to put forward some alternative and opposing views to the mainstream from the very beginning of his career. Given the influence of Sidney Weintraub, Davidson recognised early on as a young economist the importance of conducting the macroeconomic analysis within the framework of the new macroeconomic model that Keynes presented in his Chapter 3 of

¹ A discussion of what is meant by Post Keynesianism is offered by e.g. Arestis (1996), Chick (1995), Davidson (2005 & 2003-4), Hamouda & Harcourt (1988), King (2002) and Walters & Young (1997). A presentation of modern macroeconomics and its recent development is given among others by Snowdon & Vane (2005).

The General Theory: the principle of effective demand. Although he has just recently celebrated his 80 years anniversary Paul Davidson is still a very active economist who is interested in present day economic problems². As such in 2011 he published an updated and revised edition of his *Post Keynesian Macroeconomic Theory*. In order to honour him and his lifelong efforts to try to put forward an alternative to the macroeconomic mainstream the present paper tries to present some of the most important elements of Paul Davidson's macroeconomic understanding.

The principle of effective demand: The Z-D model

As King (2008) has said it; at the core, Post Keynesianism is fundamentally about conducting the macroeconomic analysis within the framework of the model that Keynes presented in Chapter 3 of his *General Theory*. The relevant macroeconomic model then becomes the principle of effective demand. With the introduction of this macroeconomic framework Keynes broke away from the orthodoxy of his time. Within this model he was able to illustrate and to explain in the context of a modern monetary economy of production why there is no guarantee at all that the macroeconomic system automatically will be put in a situation of optimality. The economy need not be in a position of full employment; rather it could be in a stationary position of equilibrium with a huge number of involuntary unemployed workers even for a rather long period of time. The macroeconomic model of Keynes is graphically illustrated in Figure 1 following the original presentation given by Weintraub (1957 & 1958).

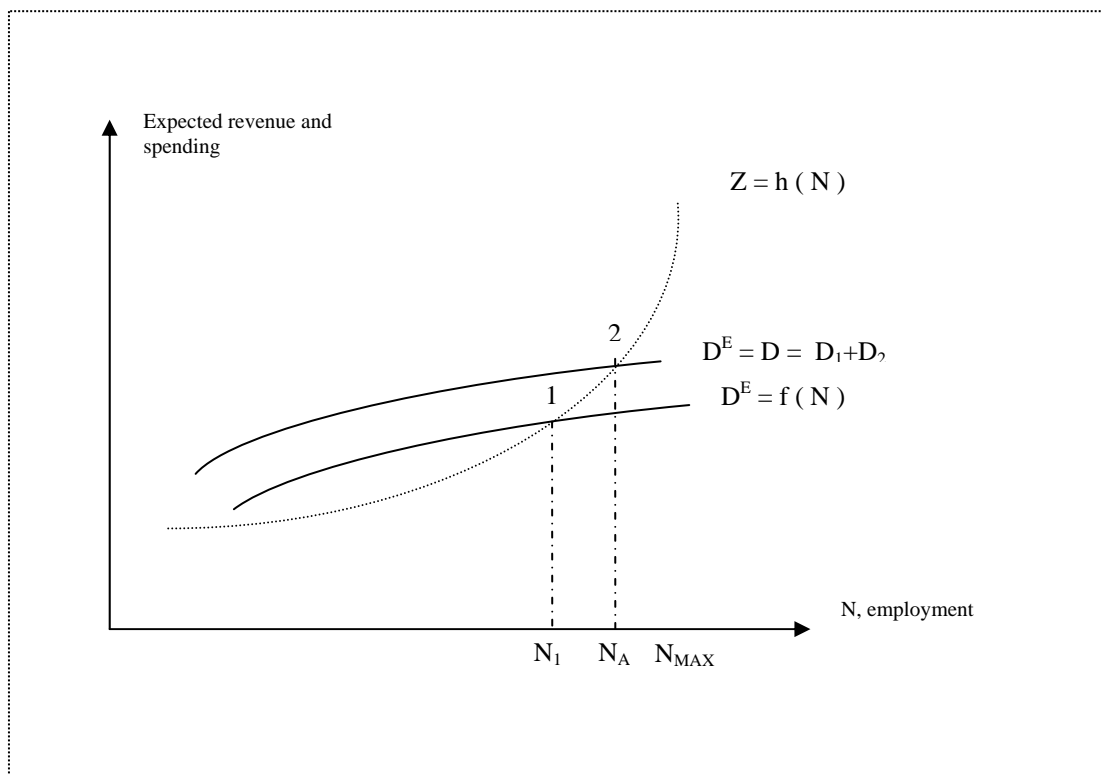
In this Figure, the Z-function denotes expected costs – given the present state of technology, the stock of capital and the degree of monopoly or competition in the markets – that have to be matched if a given amount of production and employment, (say at N_A), has to be sustainable to uphold to producers³. Likewise, the D-function denotes the level of spending – given the current propensity to

² Paul Davidson was born on the 23rd of October 1930. He started in university as a student of the natural sciences (chemistry and biology) but changed later on to economics getting his MBA from the University of New York in 1955. Originally, he did some work of an econometric kind but as stated by King (1994) after a year or so he realised that he “disliked all this messy data work”; (King, 1994, 359). In 1959 he got his Ph.D. from the University of Pennsylvania (a thesis on “the theory of relative shares ... as a history of economic thought topic”; op. cit. p. 360). On further details on Paul Davidson and his writings see Colander (2001), Holt et al. (1998), Rotheim (1996) and King (1994).

³ As Davidson (2011,20) states it: “Keynes’s aggregate supply function represents the relationship between entrepreneurs’ expected sales revenues tomorrow and the amount of labour hiring that the entrepreneurs require today to produce sufficient output to meet tomorrow’s expected demand”.

consume and the rate of investment – that producers expect to see in the market⁴. If there is a match between Z and D , then producers is in a position where they maximise their level of expected profit and therefore they have no incentive to change their actual level of production. Furthermore, at point 2, D^E coincides with the actual level of aggregate demand in the economy. This match between Z and D determine the level of effective demand in the economy⁵.

Figure 1: The principle of effective demand



⁴ “The aggregate demand function (D) represents the desired expenditures of all buyers at any level of aggregate employment”; op. cit. p. 21.

⁵ At this point of intersection between Z and D all entrepreneurs “are just realizing their expectations of sales and there should be no further incentive to change employment plans”; op. cit. p. 23. Or as explained in more details by Chick (1983,65): “it is the *point* on the schedule of firms’ anticipation of aggregate demand which is ‘made effective’ by firms’ production decisions. It is the volume of output they decide to produce, valued at their asking price; it is the *value of anticipated sales* ... So we should say that effective demand is that value of aggregate output, or that volume of sales, which firms, taken altogether, *believe* will yield maximum profits, given their expectation of the position of the aggregate demand function” For more thoroughly discussions on what is really meant by the principle of effective demand see for instance the contributions by Allain (2009), Hartwig (2007) and Hayes (2007).

As N_A is less than the level of maximum employment, $(N_{MAX})^6$, the economy is stuck in a position with involuntary unemployment; that is, the economy is not in a position of macroeconomic optimality and there are no automatic forces of adjustment in play in the economy which by themselves would bring the economy back to a level of full employment. If, however, we are at point 1 rather than at point 2, then there is no match between Z and D . At point 1 the producers have been too pessimistic regarding the actual level of demand in the economy. They have underestimated the level of spending and as a consequence of this they realise an unexpected fall in their inventories. Therefore, they have to adjust their level of production and employment, as explained in details in Davidson (2011:21-24), as they have to produce more goods thereby moving the economy towards point 2. Likewise, they have to react but now of course in the opposite direction if D^E overestimates the actual level of spending in the economy. In this case, they have to lower their level of production as well as their level of employment.

In sum, quite contrary to the wisdom of the classical orthodoxy Keynes argued that the match between Z and D need not bring about a situation of full employment; rather it would be expected as history repeatedly have shown us that the economy very often would be in a position where the level of effective demand is too small to make employment to be at its maximum. So seen from the perspective of Keynes and the Post Keynesians, modern monetary economies of production often realises a huge amount of involuntary Keynesian unemployment perhaps even for a rather long period of time which is not caused by any lack of flexibility regarding either the determination of wages nor prices. Keynesian involuntary unemployment has is instead to do with a situation where the level of effective demand is insufficient low. If, however, the level of aggregate demand increases then the D curve shifts upwards in Figure 1 thereby moving the economy away from its original position of underemployment.

And hardly anyone has been that eager as Paul Davidson has been to get this crucial message through among macroeconomists. Under the influence of his mentor Sidney Weintraub – e.g. Weintraub (1958: Chapter 2)⁷ – he has made many contributions in trying to introduce the principle of effective demand as *the* relevant macroeconomic model to his fellow colleges; see for instance Da-

⁶ Of course this level of maximum production and full employment is a changeable level apart perhaps from the very short run period.

⁷ That this book of Weintraub has been of fundamental importance to Davidson is stated by himself as he points out: "I understand Keynes from that book more than from Keynes. If you don't read that book, you don't really understand Keynes"; (King, 1994, 362), and further on: "coming under the influence of Sidney Weintraub at exactly the right time structured the rest of my career"; (Colander, 2001, 87).

vidson (1983 & 1983a). As a consequence of this, early on in 1964, together with Eugene Smolensky he wrote a textbook in macroeconomics that should present itself as an alternative to the more mainstream interpretations of Keynesian macroeconomics. And from the very beginning of this book the heritage of Keynes is evidently present. As such, we are told that based on expectations to a truly uncertain future, it is not given that agents' individual behaviour in total would be able to bring about a macroeconomic outcome that guarantees full employment. As pinpointed by the two authors: "In the real world, however, uncertainty is important and affects all economic activity. Many of the institutions of our modern economy would have no function in a world of certainty ... The supply function is usually thought to be based on short-term expectations, while the demand for investment goods is based on long-term expectations ... Both long- and short-term expectations are relevant for the hiring decisions. Actual sales are irrelevant except to the extent that they modify present or future expectations"; (Davidson & Smolensky, 1964, 7 & 8). Unfortunately, the book never became a bestseller. As Davidson (2003-4) in retrospect writes about the book, it should have been: "the fundamental Post Keynesian macroeconomic textbook. I could never understand why economists who professed to be Post Keynesians, refused to read it, much less use it as a basic macrotext"; (Davidson, 2003-4, 255). However, this fact did not stop Davidson from writing macroeconomic textbooks as Davidson (2011) is an eminent proof of.

Core statements of Davidson

Following the footsteps of Keynes, so to speak, Paul Davidson has repeatedly pointed out that Keynes in his *General Theory* rejected three core axioms of the neoclassical thinking thereby making the economics of Keynes to be a quite different kind of macroeconomics than that of the macroeconomic mainstream then as now.

Firstly, Davidson would point out, money is never neutral in the sense that money actually does affect real economic variables in the short run as well as in the longer run. Acting economically, households as well as firms have to take financial matters into account when they decide what to do in an economic environment characterised by a fundamental kind of uncertainty. Thereby, the existence of money represents a kind of link between the present and the truly unknown future which is of immense importance. Furthermore, it has to be remembered that the elasticity of the production of money is zero as no businessman would or could 'produce' money as the demand for money goes up. According to Holt et al. (1998) arguing along the guidelines given by Davidson, money

therefore represents: "a 'sink-hole' of purchasing power: if expectations about the future become pessimistic, liquidity preferences rises, raising the demand for money and lowering the demand for the products of labor. Since money is not produced using labour, the fall of demand for commodities produced by labor is not offset when money demand rises"; (Holt et al., 1998, 498).

Secondly, according to Davidson, Keynes rejected the axiom of gross substitution as Davidson terms it. Quite contrary to the classical economic understanding, to Keynes and to Post Keynesians, in general no change in relative prices is capable in itself of moving the economy back into a position of full employment. Such changes would not automatically establish an optimal macroeconomic outcome in the economy. As a general rule, markets are not going to clear simultaneously. Economic behaviour of the individual household and/or firm and the way the processes of economic adjustment unfold themselves within the economy is determined by many other things than just by changes in relative prices. Or as Davidson (1984) states it: "a basic axiom of Keynes's logical framework is that nonproducible assets that can be used to store savings are not gross substitutes for producible assets in savers' portfolios ... Consequently, relative price changes via a flexible pricing mechanism will not be the cure-all 'snake-oil' medicine usually recommended by many neoclassical doctors for the unfortunate economic maladies that are occurring in the real world"; (Davidson, 1984, 567 & 568-69).

Thirdly, as Davidson sees it, Keynes understood the macroeconomic system as a system that was functioning in a non ergodic manner. The macro economy does not behave as a simple deterministic functioning system. Rather than being a closed and a stationary system, the macro economy should be understood as an open, changeable and a path dependent social system. The macroeconomic system then often undergoes a significant change when the economy moves from: "an irrevocable past to an unpredictable future"; e.g. Davidson (2003-4 & 2005)⁸. This is so, because, as pointed out by Davidson (1984): "Keynes (1936, Ch. 12) rejected this view that past information from economic time series realizations provides reliable, useful data which permit stochastic predictions of the economic future"; (Davidson, 1984, 572). This means that the future is truly unknown in any statistical sense. Individual household and firms have to act under the conditions of fundamental or strong or ontological uncertainty most often with a less than precise and certainly almost imperfect kind of knowledge as the future economic outcomes have yet to be created by today's actions; e.g. Da-

⁸ Or with Rotheim (1996): "Actions today become based on the expectation of future, uncertain streams of income, and the cumulative path taken by an economy becomes dependent upon, rather than being independent of, the totality of those very individual decisions at every moment in time"; (Rotheim, 1996, 30).

vidson (1982-3 & 1991). Therefore: “Keynes’s nonergodic uncertainty and animal spirits concepts ... means that although we can have perfect hindsight, there is no lens that can provide corrected visions regarding the future. Entrepreneurial vision of the future is not faulty, but is, instead, based on dreams or nightmares”; (Davidson ,2003-4, 253)⁹. As a consequence of this fact, it becomes very important to understand the crucial role played by money contracts in the economy. It is by agreeing upon such contracts that the individuals try to hedge themselves against the potential negative effects of future economic outcomes that manifest themselves sometime in the years ahead.

Real world phenomena

To Paul Davidson, Keynes is the master economist not only regarding the right way to do theory and methodology but also in defining the right focus of the macroeconomic analysis; e.g. Davidson (2007). To Keynes, as to Davidson, economic theory is nothing without a purposeful connection to reality; that is, economic theory has to address phenomena of the real world. As economists we ought to be concerned with the economic problems of our day. As economic problems may change in substance over the years, economic theories have to be seen in the right contextual perspective; that is economists have to accept the fact that history matters in economics. Problem solving of this kind should be the engine behind all economic research; e.g. Davidson (1996). Otherwise, economic research totally loses its importance and becomes insignificant to the politicians as well as to the general public. We have to be concerned with problems of the real world. And this kind of perspective is always present in the writings of Paul Davidson as indicated by some of the book titles of his: *Money and the Real World* (1972), *International Money and the Real World* (1982), *Financial Markets*, *Money and the Real World* (2002), *The Keynes Solution: The Path to Global Economic Prosperity* (2009) and *Post Keynesian Macroeconomics – A Foundation for Successful Economic Policies for the Twenty-First Century* (2011).

Likewise, it is far from a coincidence that the term ‘money’ appears in many of the titles too. To Davidson, and Keynes, the role attach to money is of the utmost importance in understanding how a modern monetary economy of production is functioning. Therefore, the liquidity preference is one of the fundamental elements of the new theoretical alternative to mainstream that Keynes presented

⁹ So as pointed out by Davidson (1984): “when one is dealing with human activity and institutions, one may be, in the nature of things, outside the realm of the formally precise. For Keynes as for Post Keynesians the guiding motto is “it is better to be roughly right than precisely wrong!”; (Davidson, 1984, 574).

in his *General Theory*. Early on, Davidson recognised this by discussing the important fourth motive of the liquidity preference: the motive of finance; see Davidson (1965). And as he stated it himself explaining the importance of this motive: "Sidney's aggregate supply plus the finance motive was what broke the code of the *General Theory* for me. Those two things together were really what made me a post-Keynesian"; (King, 1994, 364). Due to some critical remarks from Bertil Ohlin following the publication of *The General Theory*, Keynes acknowledged the existence and importance of this motive in 1937; Keynes (1937 & 1937a). If firms plan to expand their level of production or investment sometime in the future the need for more liquidity is present. However, if the needed liquidity is not available; that is, the financial sector so to speak dries up – as we so painfully have seen it happen in recent years – the planned expansion never takes place and the economy may be put in a situation of recession. That is, money is indeed never neutral; the existence or not of enough available liquidity may have very severe consequences on real economic variables not only in the short run but also in the longer run¹⁰.

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As pointed out by King (2008), gradually it became more and more difficult for heterodox minded economists to get their articles published in core economic journals as these journals became more and more mainstream oriented in their content, theoretically as well as methodologically. As a consequence of this, the interest in starting a new journal with the purpose of publishing articles that would contribute to "the cumulative growth and development of a body of economic theory suitable for analyzing the real world and for providing an intelligent guide to public policy"; (King, 2008, 168), became more and more important. As such, in 1978 *Journal of Post Keynesian Economics* went into press for the first time with the two joint editors Sidney Weintraub and Paul Davidson. As time went by, this journal became more and more acknowledged both of course within the group of heterodox minded economists and also seemingly among many of the members of the more mainstream oriented establishment especially when it comes to studies of the writings of Keynes and

¹⁰ Or with Davidson (1967): "The main purpose of my finance paper was to show that if the demand for transactions balances is made a direct function of planned transactions rather than of output or income ... then when exogenous changes in the real behavioural functions are introduced, the analysis would provide significant new insights on macro-economic path analysis, income velocity, and the interdependence of the real and monetary sectors"; (Davidson, 1967, 246-47).

discussions of macroeconomic problems of present day society. As such, Paul Davidson, still acting as the editor of this journal, has published many important articles on both themes in the journal.

Concluding remarks

Throughout all of his academic life, Paul Davidson has made a great effort in trying to enlighten his fellow colleges not only about the importance of the writings of Keynes but also to point out the need of having a sharp focus on the economic problems of our present day society when we as economists do economics. And he has indeed been very productive and still is as he continues to publish articles and books and take part in public discussions. No doubt, Paul Davidson has a long time ago established his name as one of the most famous Post Keynesians. However, he does not seem to have got the kind of general recognition and acknowledgement outside the camp of Post Keynesians that he so rightfully has deserved.

Why this is so is probably dependent upon many things.

One important reason might be the development of modern mainstream macroeconomics. As it is known from reading for instance *Journal of Post Keynesian Economics* the mainstream understanding has gradually within the last 30 years or so become more and more homogenous not only in a theoretical but also in a methodological sense. That has narrowed down the scope of modern mainstream macroeconomics making it still more difficult for alternative views and interpretations to be accepted for discussion within the mainstream establishment. Furthermore, the intense use of mathematical formalism making the methodological approach within the mainstream uniform has never, for obvious reasons, had the same appeal to Post Keynesians in general as is the case of members of the mainstream. To paraphrase Keynes, when the future is truly unknown we simple do not in any precise degree know what is going to happen economically in the future. Therefore, it becomes quite futile to try to model the economy in just one general mathematical representation. The economic behaviour of the individual household and firm is not that simple to model mathematically, the information available to them is not perfect nor are their expectations rational in the modern understanding of the term. In sum, their behaviour depicts bounded rationality and in actual daily economic life they do not in general achieve positions of optimality as they have to cope with many different economic problems in many different ways: "Post Keynesians recognise that the choice of model to be used depends on the current problem at hand in the economic system under study. One general model cannot resolve every conceivable economic problem for all times

and all situations”; (Davidson, 1992, 13). And as Davidson repeatedly has told us, we have to remember that the economic system is functioning in a non ergodic manner. So the macroeconomic world of the Post Keynesians is quite a different one from that of the modern macroeconomic mainstream. However, hardly any of the members of the establishment is concerned to try, to the full extent, to understand the position of the Post Keynesians. And to adopt such a position within the discipline of economics, as Davidson has done throughout all of his life, has of course as pointed out by Rotheim (1996) consequences: ”once he started seriously challenging orthodoxy, the doors closed as his work was considered no longer at the frontiers of theoretical knowledge, as they [that is the mainstream economic journal] defined it”; (Rotheim, 1996, 40).

However, that Davidson has not as yet received the status that his intellect and economic reasoning entitles him to within the economic discipline seems not to bother him in any greater degree as he has stated: ”I have always attributed the lack of impact to a statement that Austin Robinson has attributed to Keynes. According to Robinson, Keynes once said: ”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””; (Davidson, 2009, 74). To conclude, let Holt et al. (1998) have the final saying in saluting and celebrating Paul Davidson with the best of wishes:

”As the truest Keynesian he becomes isolated and neglected in the purity of his viewpoint. At the same time, by clearly defining and holding a strongly-held position he may have a longer and more significant influence. In the future when people seek an interpreter of Keynes who gives them the real thing, aside from the writings of the master himself, it will be to the writings of Paul Davidson they will turn. In this sense, Paul Davidson, by losing in the short run, will win in the long run”; (Holt et al., 1998, 505).

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