

**Aggregate Supply and Demand Analysis**  
**- A Note on a 1963 Post Keynesian**  
**Macroeconomic Textbook**

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*Maj 2007*

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## **Abstract**

In the history of economic thought Post Keynesianism offers a different interpretation of John Maynard Keynes's **General Theory** than what is known as mainstream Keynesianism. And at least in the Paul Davidson tradition of Post Keynesianism a direct connection to the writings of Keynes is present theoretically as well as methodologically. This paper aims to present and to evaluate a textbook in Post Keynesian macroeconomics that Davidson wrote together with Smolensky in 1963.



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# 1. Introduction

As it is known from the history of economic thought Post Keynesianism is heterodox in so far that it consists of at least three main traditions (a Keynes-like, a Kaleckian and an Institutional one); e.g. according to Arestis (1996). And the discussion whether or not Post Keynesianism in total is coherent to such a degree that it can be seen as a one distinct theoretical school, to use a Lakatosian term, seems still to be an ongoing one; e.g. Hamouda & Harcourt (1988), Arestis (1996) and Walters & Young (1997). All three traditions may well be united in their mutual criticism towards neoclassical mainstream thinking but at the same time they might differ too much when it comes to sharing core elements of a theoretical and of a methodological character. However, Post Keynesianism is in many ways fundamentally linked to the writings of John Maynard Keynes; e.g. Eichner & Kregel (1975) and Chick (1995). Especially, this is of course the case in its Keynes-like tradition. According to this tradition Post Keynesianism has to do with the kind of economic understanding that Keynes presented in his *A Treatise on Probability* (1909/1921) and in *The General Theory of Employment, Interest and Money* (1936).

One of the most prominent economists within the Keynes-like tradition is Paul Davidson.<sup>1</sup> Throughout all of his writings Paul Davidson has repeatedly argued that to understand the relevant economic processes of a modern economy you have to acknowledge and to take into account the fundamental conclusions of Keynes. And on these grounds, theoretically as well as methodologically, he has rightfully criticized neoclassical thinking for its lack of relevance to conduct a thoroughly economic analysis. But he has done more than just to criticize mainstream. He has also tried to put forward an alternative from the very beginning of his career. In 1963 Paul Davidson together with Eugene Smolensky wrote a text book in macroeconomics (published in 1964) that presented itself as an alternative to the prevailing mainstream interpretation of macroeconom-

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1 As just one example; in Davidson (2005 & 2003-4) he gives his interpretation of what Post Keynesianism is all about and who should be labeled as a Post Keynesian.

ics.<sup>2</sup> Unfortunately to the authors this book never became a big success as recognized by Davidson himself as he states that the book:

*“was designed to be 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).

In this paper we primarily aim to present and to evaluate the content of this book as a case study in the history of economic thought. Were Davidson and Smolensky on the right track when they stated that they would be able to present a new and more Keynes-like textbook than that of mainstream Keynesian macroeconomics? Before this is done in Section 3 we begin in the following section to give a short sum up of how Keynes in his writings according to Davidson gradually broke away from the neoclassical economic thinking of his day. In Section 4 follows a brief evaluation of the book. Finally, the paper is closed with some few concluding remarks.

## **2. Keynes on neoclassical theory according to Davidson**

According to Davidson, Keynes, in his analysis in Chapter 3 of *The General Theory* on the principles of effective demand of how involuntary unemployment could emerge and seemingly become a very catastrophically phenomenon of the real world as history has told us, rejected three very restrictive axioms of neoclassical mainstream. Firstly, Keynes argued that the relevant economic environment to study is fundamentally a non-ergodic one meaning that future economic events cannot be predicted correctly from knowledge of neither the past nor the present; e.g. Davidson (1984:572 & 2003-4:253):

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2 As stated in the preface to the book: “What this book offers, which other texts do not, is a treatment of Keynesian theory into which price theory has been directly incorporated ... Once a bridge between micro- and macroeconomics is established, it becomes possible to call upon all the theoretical concepts and generalizations of microtheory to increase our understanding of price level and employment phenomena”; Davidson & Smolensky (1964:xi & xii).



*“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 ... Keynes’s non-ergodic uncertainty and animal spirits concepts ... means that although we can have perfect hindsight, there is no lens that can provide corrected vision regarding the future. Entrepreneurial vision of the future is not faulty, but is, instead, based on dreams or nightmares”.*

And therefore you have to acknowledge as Davidson goes on arguing that:

*“Keynes’ uncertain future involves a creative economic reality in the sense that the future can be permanently changed in nature and substance by actions of individuals, groups (e.g., unions, cartels), and/or governments, often in ways not completely foreseeable by the creators of change ... In a nonergodic environment ... this existing market information does not, and cannot, provide reliable data for forecasting the future”; Davidson (1996:482).*

Secondly, Keynes rejected the neutrality of money axiom and broke away from the economic reasoning that has to do with the understanding imbedded in what is termed the classical dichotomy. Money certainly matters as they indeed may have a major impact on real economic affairs also in the longer run; monetary policy can in many ways crucially determine the outcome and the performance of modern economies, e.g. Davidson (2003-4:269):

*“Consequently, in an economy with a money whose elasticity of production is zero or negligible, and where the products of industry are not gross substitutes for nonproducible liquid assets, then money is never neutral. That is the world of Keynes’s General Theory and the one dealt with in Post Keynesian economics”.*

And finally, Keynes did not accept what Davidson calls the gross substitution axiom meaning that substitution is never perfect. Not everything is a substitute for everything else; e.g. Davidson (1984:567 & 568-69):

*“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 ... In the absence of the axiom of gross substitution, income effects (e.g., the Keynesian multiplier) predominate and can swamp any hypothetical neoclassical substitution effects. 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”.*

At least to the Keynes-like tradition in Post Keynesianism á la Paul Davidson these three denials of Keynes still constitutes fundamental economic truths that have to be taken into account when you have to conduct a thoroughly economic analysis of a modern economy. With Arestis (1996:114) Post Keynesians would argue that you have to acknowledge that:

*“The economy operates subject to a historical process in an uncertain world, where expectations inevitably have significant effects on economic outcomes. Social, conventional, political and other institutions shape economic events, and their evolution is studied carefully”.*<sup>3</sup>

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3 And that is exactly why: “Post-Keynesian economics is concerned with non-equilibrium, non-market clearing analysis and change over time ... Institutional structure and industrial organisation are continuously evolving, influencing the historical development of economics in the process, and play a vital role in terms of the determination of the level and composition of output, the generation of surplus and its distribution”; Arestis (1996:118 & 119). Or as stated by Rotheim (1999:83): “The historical evolution of a social system is path-dependent, meaning that the social world is not only too complex to know ... but that how things are and how they are perceived depend on context and are therefore unknowable in a systematic sense”.

### 3. Aggregate Supply and Demand Analysis

From the very beginning of the book the heritage of Keynes is evidently present as the first very interesting chapter of Part I of the book is devoted to outline the fundamentals of the macroeconomic model presented by Keynes in his famous chapter 3 on “The Principle of Effective Demand” in *The General Theory*, a model that is also going to be the macroeconomic model of Davidson & Smolensky. And contrary to Keynes, the authors offer a graphical illustration of the working of this macroeconomic model (Figure 1.1).<sup>4</sup> Based on expectations the outcome of the economy is determined by the intersection of the aggregate supply and the aggregate demand functions, Z and D, where the expected revenues is drawn as a rising convex curve with an increasing slope and the demand expenditures is drawn as a rising concave curve with a declining slope:<sup>5</sup>

*“The value of total spending as given by the aggregate demand function where it is intersected by the aggregate supply function will be called effective demand. It represents an equilibrium level of spending, where entrepreneurial expectations are just being realized, so that there is no inducement to change hiring policy”*; Davidson & Smolensky (1964:6).

Based on expectations to a truly uncertain future it is not given that agents’ individual behaviour in total would be able to bring about an economic outcome that guarantees full employment. That is the main conclusion in *The General Theory* and seemly also in Davidson & Smolensky. Not surprisingly then, the main focus in the economic analysis of both contributions is on the two core elements: expectations and uncertainty. As pinpointed by the latter two authors:

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4 A more thoroughly presentation of this macro model is given in Chapter 10, see below. When dealing with the content of this chapter, the Davidson & Smolensky’s graphical illustration of the principle of effective demand would be reproduced.

5 “Given the aggregate supply function which shows how much entrepreneurs would expect to sell at any level of employment, and the aggregate demand function which indicates how much buyers would want to buy at any level of employment”; Davidson & Smolensky (1964:5-6).

*“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”*; (op. cit. pp. 7 & 8).

The final chapter in Part I discuss some general aspects concerning what is meant by an economic model and its exogenous and endogenous variables.

Then the scene is set to conduct an economic analysis. Now the demand side of the macroeconomic model can be presented. This is the content of Part II of the book. While Chapter 3 has to do with the consumption function in a traditional 45° diagram setting,<sup>6</sup> Chapters 4 and 5 deals with the investment function (the schedule of the marginal efficiency of capital and the acceleration principle). And because investment purchases can be very volatile as they are depended upon excepted future returns even many years ahead from now,<sup>7</sup> they might much more easily than what is in general the case with consumption decisions trigger off an economic expansion or contraction. So we are told to look very carefully into the decision making process of capital accumulation.<sup>8</sup> To decide to invest or not is basically depended upon if the marginal efficiency of capital

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6 This presentation is supplemented by a short discussion of other determinants of the level of consumption than that of income: 1) tastes; 2) Socio-economic characteristics; 3) the rate of interest; 4) wealth; 5) consumer credit; 6) taxes; 7) total population, and 8) income distribution.

7 "Plant, much equipment, and residential construction are long-lived capital goods of considerable initial cost. The investor may have to wait ten, fifteen, perhaps even twenty-five years before the profitability of an investment is proved. Belief that the purchase of so long-lived a good will be profitable, therefore, involves a bold plunge into an unforeseeable future ... But investment decisions must be made, and they are made. They are made with one-third fact and two-third animal spirits. These animal spirits largely depend on the mood of the business community"; (op. cit. pp. 51 & 52).

8 "As an initiator of change, investment merits very careful and detailed consideration"; (op. cit. p. 42).

is above or below the rate of interest. That is, investment decisions have to do with matching expected and uncertain future returns with present real costs. And such a decision can be a very troublesome one to carry through.<sup>9</sup>

Because investment decisions are fundamentally based on true uncertainty about future events, investment purchases might be very volatile indeed as history has shown us. Output fluctuates as a consequence of the existence of business cycles. And due to the multiplier volatile investment decisions induces even greater fluctuations in aggregate demand and output than the investment fluctuations themselves.<sup>10</sup> As a consequence of this fact the schedule of marginal efficiency is not a stable function. It might shift considerably over time. Therefore:

*“The instability of the marginal efficiency of capital schedule is a major source of instability in the level of economic activity. As long as expectations about an uncertain future remain ephemeral, they will remain unpredictable, and will impose a permanent and drastic limitation on the ability of economists to forecast the course of business”;*  
(*op. cit.* p. 54).

Chapter 6 has to do with the simultaneous determination of total output and the rate of interest. With the liquidity preference function in place and an exogenously determined supply of money the CI/LM macroeconomic model of Davidson & Smolensky can be put forward. In many ways this model looks a lot like the IS/LM model. Though, at least two distinct differences between the two models are that the CI/LM model explicitly has the liquidity trap incorpo-

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9 “Moreover, there is great uncertainty about what the future return will be. To paraphrase Keynes, the entrepreneur who has to make a practical decision as to his scale of investment, does not entertain a single undoubting expectation of what the future earning stream will be. Several hypothetical expectations are held, each with varying degrees of confidence”; (*op. cit.* p. 44).

10 “Consequently, for an economy to achieve a smooth, continuous, and constant rate of growth in output requires a delicate balance between increases in productive capacity and increases in ef-

rated as a horizontal part of the LM curve. And because the CI curve is depended upon the marginal efficiency of capital this curve has implicitly entrepreneurs' expectations build in its functional relationships.<sup>11</sup> Finally, it is not given by certainty that the intersection of the two curves will automatically bring about a situation with full employment. If output is below that of full employment monetary policy might do the trick by itself. If not, an expansive fiscal policy change has to be introduced to ensure that the level  $Y_f$  can be reached. How the government may be able to manipulate the level of output, which is fiscal policy seen solely from the perspective of the motive of functional finance, is the topic of the next chapter. And from the very beginning we are told that to ensure an optimal level of output within the economy we have to go beyond the economic reasoning of the individuals themselves. We have to give way to a much broader economic perspective, namely to that of society.<sup>12</sup>

Besides presenting fiscal policy within the framework of the balanced budget theorem in Chapter 7, a more general discussion of policy changes is given including for instance how the interest rate might be affected by fiscal policy changes. And finally, we are told that fiscal policy might also change the distribution of income and affect profit expectations held by entrepreneurs which would be expected to have consequences not only concerning the pattern of consumption but also influencing the marginal efficiency of capital schedule. So to grasp the full effect of a given fiscal policy change is a very complicated task indeed to perform.

Finally, Part II of the book is closed with a short chapter on foreign trade as yet another component of aggregate demand and the level of output.

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fective demand for the products that can be turned out by this additional capacity"; (op. cit. p. 66).

11 "If, for example, the marginal efficiency of capital schedule rises as entrepreneurs become more optimistic, then the CI schedule would shift outward"; (op. cit. p. 91).

12 "Since individuals cannot be expected to act against their own self-interest, some goals can be achieved only by a coordinated effort on the part of the whole community; and normally only government can mobilize such an effort"; (op. cit. p. 95).

Then follows in Part III of the book the presentation of the supply side of the economy. Chapter 9 and 10 give us the aggregate supply and demand functions. And although the aggregate supply function “links expected sales revenue to employment”, *op. cit.* p. 118, the understanding of the supply side of the economy is quite traditional and mainstream like in its content<sup>13</sup> as for instance the assumption of the existence of purely competitive goods markets (though it is argued that changes in monopoly conditions could alter the slope of the aggregate supply function). The aggregate supply curve is of course an upward sloping one (expected to be linear or convex) and primarily dependent upon the money wage rate. Likewise the aggregate demand function is made dependent upon four factors: consumption, investment, governmental purchases and foreign trade. And finally, the macro model of Keynes is once again reproduced – Figure 10.3 is similar to Figure 1.1 – determining the level of effective demand.

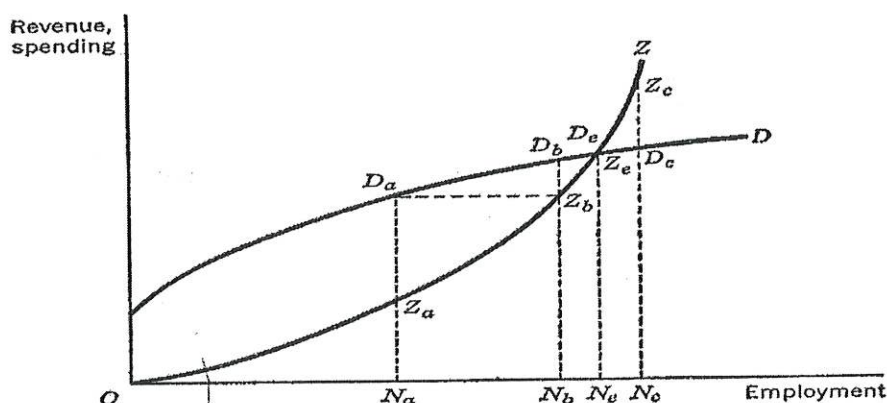


FIGURE 10.3.

And as pinpointed by Davidson & Smolensky (1964:145 & 146):

13 As seems to be the case of the overall vision that governs the economic reasoning within the economic universe of Davidson & Smolensky as they state themselves: “This model will view the economy as being driven by two innately countervailing forces: (1) short-run profit maximization by entrepreneurs which underlies supply conditions, and (2) utility maximization by consumers and long-run profit maximization by entrepreneurs which form the foundations of aggregate demand”; (*op. cit.* p. 117).

*“When entrepreneurial expectations of revenue equal  $Z_e$ , they will hire  $N_e$  workers, and will discover that the concomitant demand outlays ( $D_e$ ) are such that their expectations are just fulfilled. At that point, ceteris paribus, there will be no inducements to change the employment level ... The value of total spending as given by the aggregate demand function where it is intersected by the aggregate supply function is called effected demand. Effective demand is the point where aggregate spending equals aggregate expectations of sales; it represents an equilibrium level of expenditures, where entrepreneurial expectations are just being realized so that there is no inducement to change hiring policy”; (op. cit. p. 146).*

The remaining part of Chapter 10 is devoted to a mathematical presentation of the relevant employment and income multipliers.

Then follows two very important chapters.

First Chapter 11 discusses how the money wage rate becomes endogenously determined. To be able to analyse the behaviour in the labour market Davidson & Smolensky starts out to present three types of potential labour demand curves: a) the traditional downward sloping curve representing the classical thinking, b) a vertical perfect inelastic curve representing the thinking of Keynes, and finally, c) an upward sloping curve representing the scenario with a situation of underconsumption. Having done this the authors shortly discusses which one might be the relevant curve to use in their analysis. They conclude that there often might be able evidence to let the demand for labour be represented by the traditional classical curve.<sup>14</sup> Regarding the supple curve of labour the authors

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14 As they write: “With large and rapid changes in money-wages, monetary policy and perhaps the real balance effect will tend to mold the extremes of the demand curve for labor into the classical shape”; (op. cit. p. 168). Previously though, they also noted that: “the larger the marginal propensity to consume out of gross profits, the more inelastic the demand curve for labor will be ... Because of these inflation expectations, real demand at each level of employment may not decline. Thus an inflationary psychology on the part of the public will make possible a Keynesian vertical demand curve for labor. Moreover, if the inflationary psychology was suffi-



accept without any hesitation the normal upward sloping one. Putting the two curves together a situation of full employment is identified where the demand and the supply for labour equals one another. And the number of people employed in a situation of full employment may vary as the level of effective demand in the economy changes as Davidson & Smolensky points out.<sup>15</sup> Finally they discuss the case of involuntary unemployment. A bit astonishing they do not explain the existence of such an outcome due to a lack of effective demand. Rather they argue that the supply of labour could have a perfect elastic floor which is set by institutional factors (e.g. a union scale salary or federal minimum wage laws).

Then we come to Chapter 12 which introduces three basic types of inflation. The price level could rise due to movements along a given aggregate supply curve. This phenomenon they term diminishing returns inflation. Then inflation could occur when the Z function shifts upward. In this case they talk about profits inflation (due to a higher degree of monopoly power) and wage-price inflation respectively. And of course inflation could occur in the economy as a consequence of changes in the level of aggregate demand. When the D function is shifted upward we have inflation because of two reasons: a combination of diminishing returns and wage-price inflation.<sup>16</sup> Finally, the problem of inflation is identified with effects of redistribution within the economy and not as nor-

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ciently strong, the upward sloping underconsumptionist demand curve for labor would become conceptually admissible"; (op. cit. p. 166). So when the economic performance of Western economies changed from the smooth waters of the early 1960s to that of turbulence in the 1970s and early 1980s the two alternative representations – b) and c) – might have been better representation of actual labour demand behaviour than that of the classical thinking.

- 15 "an increase in effective demand at full employment is likely to induce a small change in the level of total employment and a large increase in the money-wage rate"; (op. cit. p. 171).
- 16 And Davidson & Smolensky is quite aware of the asymmetric consequences of an upward shift in D compared with a downward one. When the level of aggregate demand comes down we would naturally see a tendency towards a slowdown in the rate of inflation but not of the same numerical size as when the D function shifts upward with the same amount. Downwards only the diminishing returns inflation effect would be present. We should not expect any help from the wage-price mechanisms because: "The money-wage rate will not return to its initial level, for once the perfectly elastic segment of the labor supply curve has risen, institutional barriers will prevent its fall"; (op. cit. p. 186).

mally with problems of lack of competitiveness as would have been the case when the economic analysis is seen from the perspective of a smaller and more open economy as for instance that of Denmark.<sup>17</sup> But then the US economy in the early 1960s is of course a rather closed-like economy where the exporting sector affects the level of total output only to a lesser degree.

Chapter 13 is devoted to bring about a complete equilibrium model of a purely competitive and fully integrated monetary economy. Equilibrium in the goods markets as well as financially are given by relations (1) and (2) respectively:

$$Z = D_C (F, w, N) + D_I (I, w, N)$$

$$M^S = M^D = L_1 (w, N) + L_2 (i)$$

As is the case with Keynes's analysis in *The General Theory* aggregate demand is split into two components: consumption spending and investment expenditures. Likewise the money demand consists partly of the demand for transactions and precautionary balances and the speculative demand for money.<sup>18</sup> From the fundamental equations in the chapter Davidson & Smolensky derives at two functions which under the assumption of a given exogenously fixed money wage rate – once again as in Chapter 6, but this time not only seen from the perspective of the demand side, aggregate supply no longer plays a passive role in the economic process of income determination – simultaneously determine the level of employment and the interest rate: the CIZ function (the composite of consumption, investment, and the aggregate supply function) and the LM function (again with a build in liquidity trap). Having established equilibrium within our economy the authors introduce three kinds of disturbances: a) a once and for all rise in the money wage rate, b) a continuously rising money wage rate,

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17 If there are objections to inflation, it is precisely because the effects on redistribution are predictable and the outcome is socially undesirable"; (op. cit. p. 192).

18 F is income payment to rentiers (assumed to be fixed), w the money wage rate, N the level of total employment and i the interest rate. It is also assumed that the quantity of money is exogenously determined by the banking system.

and finally, c) expectations of a future continuously rising money wage rate. Unfortunately the given analysis is quite inconclusive regarding the effect on the level of employment and changes in the interest rate. We cannot with certainty, so it seems, argue that the level of employment drops down while the interest rate at the same time has a tendency to rise as one would normally expect to be the case when the money wage rate changes upwards making expectations of future movements be present or not.

The follows once again a very short chapter on foreign trade. This time we are told that we would probably gain economically when we trade with one another due to the effects of specialization. Seemingly the evidence presented here does not in any significant way change the previous analysis.

Finally, Part IV of the book consists of two supplementary chapters. One on social accounts – written by Charles Leven – and a short chapter introducing some very basic econometric applications.

#### **4. A brief evaluation**

No doubt Davidson & Smolensky is much more Keynes-like in their presentation of macroeconomics than mainstream textbooks were in the early 1960s in so far that they not only adopt the macroeconomic model of Chapter 3 in *The General Theory* but also give birth to a graphical illustration of the working of the principle of effective demand, as acknowledged in the two book reviews by Rose (1964) and Kurihara (1964).<sup>19</sup> Following the tradition of Keynes they throughout their entire analysis have a strong focus on expectations as also

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19 At the same time Kurihara finds the content of Davidson & Smolensky less Post Keynesian than other macroeconomic contributions within the framework of this theoretical research programme in so far that they put more neoclassical emphasis to the supply side of the economy. Likewise Kurihara (1964:770) concludes that: “The book as a whole would appeal to micro-oriented students of static macrotheory with a considerable amount of training in the neoclassical theory of value and distribution”.

stated by Sweezy (1964).<sup>20</sup> The entrepreneurs decide what to supply based on what they expect would maximize their profits. And likewise households consumes accordingly to what they expect their incomes to be given what they consider to be the right level of employment and the going money wage rate in the period to come. As Keynes, Davidson & Smolensky also put the process of capital accumulation up front. They fully acknowledge that investment purchases could be very volatile indeed as these decisions are based upon expected future returns even many years ahead. And entrepreneurs may easily make mistakes. The relevant economic environment to the two authors as was the case of Keynes himself is one where economic agents must form expectations to a truly uncertain future. Finally, Davidson & Smolensky put a lot of emphasis on accepting and understanding the working of the supply side of the economy. So they go into great details to illustrate how the money wage rate might be determined endogenously. Likewise they focus on the complicated questions of inflation, and give way to three different types of inflation. In presenting the supply side of the economy as they choose to do the authors seem to acknowledge the economic analyses that Keynes himself gave in his Chapter 21 on the theory of prices.<sup>21</sup> In other aspects Davidson & Smolensky is much more mainstream neoclassical in their analysis; e.g. when they accept that goods markets are purely perfect competitive ones and when their analysis do not take an explicit account of an economic outcome with total output below that of full employment (except as in the case of the analysis presented in Figure 6.6). And as stated earlier on it seems strange that they do not explain the existence of involuntary unemployment in Chapter 11 due to a lack of effective demand.

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20 "Throughout the book the authors are ultra-Keynesian in insisting that everything be formulated in terms of expectations"; Sweezy (1964:704).

21 With Rose (1964:663-64): "Their main achievement is, perhaps, to have put into the student's hands the keys that unlock Keynes' somewhat forbidding Book V, and to have shown that its contents are still worth examining".

## 5. Some concluding remarks

As Paul Davidson himself has pointed out, he was rather disappointed considering the lack of success of the book. It never became a bestseller nor seen as *the* fundamental Post Keynesian textbook. One might ask why? Perhaps one of the answers should be found in the adoption made by the authors of the macroeconomic model of Keynes. An economic analysis based on the principle of effective demand has never had the simplicity and elegance as the more straightforward 45° diagram, the IS/LM or AD/AS models. As Cummins (1964:156) points out, a rather high level of abstraction is maintained throughout this very short textbook making students to require “considerable intellectual maturity and a solid background in price theory” to be able to gain from reading the text. And in Davidson & Smolensky you hardly find any empirical evidence to support the posed theoretical statements. Then there is the question about how to handle expectations the right way. Many economists may in principle agree with Keynes and the Post Keynesians that economic agents have to form expectations perhaps even based on imperfect information about relevant matters when acting in an economic environment of a truly uncertain future. But how should this be done in practise? If the relevant economic environment is one of non-ergodicity then the process could indeed be very complicated to understand and even much more complicated to formulate theoretically as well as in more practical terms. And on this account there is not must help to find in Davidson & Smolensky. And simplicity often makes rather complicated questions and their solutions attractive to students. Or to teachers for that matter. There is not always able room for sophistication in economies. At least so it seems to have been the case in the early 1960s when it comes to the lacking success of the book written by Davidson & Smolensky.<sup>22</sup>

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22 Though not, so it seems, in the case of Sweezy as he concludes his review of the book with the statement that the authors “manage to avoid disaster is attributable largely to the combination of youthful enthusiasm, engaging modesty, and sound theoretical understanding with which they carry through their perilous undertaking”; Sweezy (1964:702).

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7/00	Carsten Lynge Jensen	<i>Output Substitution in a Regulated Fishery</i>
8/00	Finn Olesen	<i>Jørgen Henrik Gelting – En betydende dansk keynesianer</i>
9/00	Frank Jensen Niels Vestergaard	<i>Moral Hazard Problems in Fisheries Regulation: The Case of Illegal Landings</i>
10/00	Finn Olesen	<i>Moral, etik og økonomi</i>



11/00	Birgit Nahrstedt	<i>Legal Aspect of Border Commuting in the Danish-German Border Region</i>
12/00	Finn Olesen	<i>Om Økonomi, matematik og videnskabelighed - et bud på provokation</i>
13/00	Finn Olesen Jørgen Drud Hansen	<i>European Integration: Some stylised facts</i>
14/01	Lone Grønbæk	<i>Fishery Economics and Game Theory</i>
15/01	Finn Olesen	<i>Jørgen Pedersen on fiscal policy - A note</i>
16/01	Frank Jensen	<i>A Critical Review of the Fisheries Policy: Total Allowable Catches and Rations for Cod in the North Sea</i>
17/01	Urs Steiner Brandt	<i>Are uniform solutions focal? The case of international environmental agreements</i>
18/01	Urs Steiner Brandt	<i>Group Uniform Solutions</i>
19/01	Frank Jensen	<i>Prices versus Quantities for Common Pool Resources</i>
20/01	Urs Steiner Brandt	<i>Uniform Reductions are not that Bad</i>
21/01	Finn Olesen Frank Jensen	<i>A note on Marx</i>
22/01	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>Hot air in Kyoto, cold air in The Hague</i>
23/01	Finn Olesen	<i>Den marginalistiske revolution: En dansk spire der ikke slog rod?</i>
24/01	Tommy Poulsen	<i>Skattek konkurrence og EU's skattestruktur</i>
25/01	Knud Sinding	<i>Environmental Management Systems as Sources of Competitive Advantage</i>
26/01	Finn Olesen	<i>On Machinery. Tog Ricardo fejl?</i>
27/01	Finn Olesen	<i>Ernst Brandes: Samfundsspørgsmaal - en kritik af Malthus og Ricardo</i>
28/01	Henrik Herlau Helge Tetzschner	<i>Securing Knowledge Assets in the Early Phase of Innovation</i>
29/02	Finn Olesen	<i>Økonomisk teorihistorie Overflødig information eller brugbar ballast?</i>

30/02	Finn Olesen	<i>Om god økonomisk metode – beskrivelse af et lukket eller et åbent socialt system?</i>
31/02	Lone Grønbæk Kronbak	<i>The Dynamics of an Open Access: The case of the Baltic Sea Cod Fishery – A Strategic Approach -</i>
32/02	Niels Vestergaard Dale Squires Frank Jensen Jesper Levring Andersen	<i>Technical Efficiency of the Danish Trawl fleet: Are the Industrial Vessels Better Than Others?</i>
33/02	Birgit Nahrstedt Henning P. Jørgensen Ayoe Hoff	<i>Estimation of Production Functions on Fishery: A Danish Survey</i>
34/02	Hans Jørgen Skriver	<i>Organisationskulturens betydning for vidensdelingen mellem daginstitutionsledere i Varde Kommune</i>
35/02	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>Rent-seeking and grandfathering: The case of GHG trade in the EU</i>
36/02	Philip Peck Knud Sinding	<i>Environmental and Social Disclosure and Data-Richness in the Mining Industry</i>
37/03	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>Fighting windmills? EU industrial interests and global climate negotiations</i>
38/03	Finn Olesen	<i>Ivar Jantzen – ingeniøren, som beskæftigede sig med økonomi</i>
39/03	Finn Olesen	<i>Jens Warming: den miskendte økonom</i>
40/03	Urs Steiner Brandt	<i>Unilateral actions, the case of international environmental problems</i>
41/03	Finn Olesen	<i>Isi Grünbaum: den politiske økonom</i>
42/03	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>Hot Air as an Implicit Side Payment Arrangement: Could a Hot Air Provision have Saved the Kyoto-Agreement?</i>

43/03	Frank Jensen Max Nielsen Eva Roth	<i>Application of the Inverse Almost Ideal Demand System to Welfare Analysis</i>
44/03	Finn Olesen	<i>Rudolf Christiani – en interessant rigsdagsmand?</i>
45/03	Finn Olesen	<i>Kjeld Philip – en økonom som også blev politiker</i>
46/03	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>Bureaucratic Rent-Seeking in the European Union</i>
47/03	Bodil Stilling Blichfeldt	<i>Unmanageable Tourism Destination Brands?</i>
48/03	Eva Roth Susanne Jensen	<i>Impact of recreational fishery on the formal Danish economy</i>
49/03	Helge Tetzschner Henrik Herlau	<i>Innovation and social entrepreneurship in tourism - A potential for local business development?</i>
50/03	Lone Grønbæk Kronbak Marko Lindroos	<i>An Enforcement-Coalition Model: Fishermen and Authorities forming Coalitions</i>
51/03	Urs Steiner Brandt Gert Tinggaard Svendsen	<i>The Political Economy of Climate Change Policy in the EU: Auction and Grandfathering</i>
52/03	Tipparat Pongthanapanich	<i>Review of Mathematical Programming for Coastal Land Use Optimization</i>
53/04	Max Nielsen Frank Jensen Eva Roth	<i>A Cost-Benefit Analysis of a Public Labelling Scheme of Fish Quality</i>
54/04	Frank Jensen Niels Vestergaard	<i>Fisheries Management with Multiple Market Failures</i>
55/04	Lone Grønbæk Kronbak	<i>A Coalition Game of the Baltic Sea Cod Fishery</i>

56/04	Bodil Stilling Blichfeldt	<i>Approaches of Fast Moving Consumer Good Brand Manufacturers Product Development “Safe players” versus “Producers”: Implications for Retailers’ Management of Manufacturer Relations</i>
57/04	Svend Ole Madsen Ole Stegmann Mikkelsen	<i>Interactions between HQ and divisions in a MNC - Some consequences of IT implementation on organizing supply activities</i>
58/04	Urs Steiner Brandt Frank Jensen Lars Gårn Hansen Niels Vestergaard	<i>Ratcheting in Renewable Resources Contracting</i>
59/04	Pernille Eskerod Anna Lund Jepsen	<i>Voluntary Enrolment – A Viable Way of Staffing Projects?</i>
60/04	Finn Olesen	<i>Den prækeynesianske Malthus</i>
61/05	Ragnar Arnason Leif K. Sandal Stein Ivar Steinshamn Niels Vestergaard	<i>Actual versus Optimal Fisheries Policies: An Evaluation of the Cod Fishing Policies of Denmark, Iceland and Norway</i>
62/05	Bodil Stilling Blichfeldt Jesper Rank Andersen	<i>On Research in Action and Action in Research</i>
63/05	Urs Steiner Brandt	<i>Lobbyism and Climate Change in Fisheries: A Political Support Function Approach</i>
64/05	Tipparat Pongthanapanich	<i>An Optimal Corrective Tax for Thai Shrimp Farming</i>
65/05	Henning P. Jørgensen Kurt Hjort-Gregersen	<i>Socio-economic impact in a region in the southern part of Jutland by the establishment of a plant for processing of bio ethanol</i>
66/05	Tipparat Pongthanapanich	<i>Options and Tradeoffs in Krabi’s Coastal Land Use</i>
67/06	Tipparat Pongthanapanich	<i>Optimal Coastal Land Use and Management in Krabi, Thailand: Compromise Programming Approach</i>

68/06	Anna Lund Jepsen Svend Ole Madsen	<i>Developing competences designed to create customer value</i>
69/06	Finn Olesen	<i>Værdifri samfundsvidenskab? - nogle refleksioner om økonomi</i>
70/06	Tipparat Pongthanapanich	<i>Toward Environmental Responsibility of Thai Shrimp Farming through a Voluntary Management Scheme</i>
71/06	Finn Olesen	<i>Rational Economic Man og Bounded Rationality – Nogle betragtninger over rationalitetsbegrebet i økonomisk teori</i>
72/06	Urs Steiner Brandt	<i>The Effect of Climate Change on the Probability of Conservation: Fisheries Regulation as a Policy Contest</i>
73/06	Urs Steiner Brandt Lone Grønbæk Kronbak	<i>Robustness of Sharing Rules under Climate Change. The Case of International Fisheries Agreements</i>
74/06	Finn Olesen	<i>Lange and his 1938-contribution – An early Keynesian</i>
75/07	Finn Olesen	<i>Kritisk realisme og post keynesianisme.</i>
76/07	Finn Olesen	<i>Aggregate Supply and Demand Analysis – A note on a 1963 Post Keynesian Macroeconomic textbook.</i>