

THE ESSENTIAL ATTRIBUTES OF POST-KEYNESIAN ECONOMICS

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notes!!!

1. the non-neutrality of money also implies the non-neutrality of money wages and of monopoly positions that are capitalized into asset prices.

2. The agents are rational: the Post Keynesian position on rationality is "How does a rational animal behave in a world that is not fully understood and whose laws of change are but dimly perceived." The question at issue is not rationality, it is the imperfection of foresight. The post Keynesians sticking point is on the neoclassical assumption of perfect foresight, and as we all understand the basic Arrow-Debreu proofs depend upon the assumption of perfect foresight. Post Keynesians, going along with Keynes, accept that a rational animal recognizes that he may be wrong: this implies that unlike neoclassical theorists he is willing to admit that he was wrong and to admit that he does not understand the rules that guide the behavior of the world. Such a rational agent allows events to change behavior: preference systems that affect choices that involve risk change as events unfold. Such a rational animal would participate in the leveraged buy outs of the 1980's and turn around and impose a credit crunch in the 1990's.

A. The following analysis registers my final escape from the confusions of the Quantity Theory, which once entangled me.

B. I regard the price level as a whole as being determined in precisely the same way as individual prices; that is to say under the influence of supply and demand. Technical conditions, the level of wages, the extent of unused capacity of plant and labour, and the state of markets and competition determine the supply conditions of individual products and of products as a whole. The decisions of entrepreneurs, which provide the incomes of individual producers and the decisions of those individuals as to the

disposition of their incomes determine the demand conditions. And prices - both individual prices and the price-level - emerge as the resultant of these two factors.

C. Money and the quantity of money are not direct influences at this stage of the proceedings. They have done their work at an earlier stage of the analysis.

D. The quantity of money determines the supply of liquid resources, and hence the rate of interest. and in conjunction with other factors (particularly that of confidence) the inducement to invest, which in turn fixes the equilibrium level of incomes, output and employment and (at each stage in conjunction with other factors) the price level as a whole through the influences of supply and demand so established.

John M. Keynes. Introduction to the French edition. Collected Works Vol 13 pp.1

I. Introduction

A commonplace of the current discourse, whether the forum be the press or learned Journals, is the assertion that Keynesian Economics is dead. Like Peace the economics of Keynes has never really had a chance. Post-Keynesian economics, while not wedded to taking ~~every nuance~~ ^{wrote what} of Keynes ~~thought~~ ^{wrote} as ~~gospel~~ ^{body}, holds that the research program of the General Theory was aborted and that

1. I have taken the liberty of breaking what Keynes wrote in one paragraph into four passages.

this aborted program implied a rejection of the equilibrium economic theory that has flourished over the past two generations as the neoclassical synthesis. Furthermore the research program that followed from the General Theory leads to a deeper understanding of the economics of capitalism than the neoclassical theory in all its variants does.

Early in the expository history of The General Theory, Keynes' attempt to change the focus of economic theory from the analysis of the equilibrium of an abstract economy to the analysis of the processes which generate the path through time of a modern capitalist economy was lost. What passed as Keynesian economics was a variant of equilibrium analysis: the variation being that the equilibrium need not be at full employment and economic policy could be effective in altering the level of employment.² Neither underemployment equilibrium nor policy

2. cite JR Hicks and Oscar Lange. Keynes was not without responsibility for the integration of his theory into the "equilibrium" structure of neo-classical theory. He speaks of the equilibrium of the orthodox theory as one of a multitude of possible equilibria and, he accepted, however mistakenly the JR Hicks interpretation of his theory.

effectiveness is sufficient to make an argument Keynesian: what is necessary and sufficient is an argument that fully integrates the financial institutions and the in fact characteristics of product and labor markets into the determination of the path of the economy through time.

I selected a passage from Keynes' introduction to the French edition as the "Motto" or taking off point for my exposition of the Essential Attributes of Post Keynesian Theory because of three statements Keynes made in this statement which may well have been his last comment upon the substance of the General Theory. The statements are: 1. the emphasis upon escaping "from the confusions of the Quantity Theory", 2. the proposition that "money and the quantity of money are not direct influences" upon the level of output prices which are determined "under the influence of supply and demand" and 3. the assertion that money and the quantity of money "have done their work at an earlier stage (prior to the determination of the prices of outputs) of

the analysis". This earlier stage is the analysis of those markets in which the prices of capital assets, the liability structures used in financing positions in capital assets and the pace in the aggregate of investment activity is determined.³

My argument is that the problem that Keynes set for himself, to "escape from the confusions of the Quantity Theory." remains a valid problem for economists of our time. Whether the problem being faced is the reform of capitalism, in the light of a deterioration in performance, or the creation of capitalism, in the aftermath of the breakdown of command socialism, almost always the advice offered by an economist of the economic advising establishment reflects "the confusions of the Quantity Theory" which are deeply imbedded in the neoclassical synthesis. Without understanding the special attributes of capitalism it is impossible to channel its dynamic force to achieve creative ends.

3. There has been a large literature on the micro-foundations of macroeconomics

2. Neutrality

The essential aspect of the Quantity Theory of money is not that the price level is determined by the quantity of money: the essential theorem is the neutrality of money.⁴ In the various resurrections of the Quantity Theory transitory non neutrality of money is achieved by introducing dumb workers and smart bosses (Friedman) and confused bosses who cannot differentiate between relative and absolute price movements (Lucas). But such non neutrality is transitory and:

"Any economic model is going to have at its center a collection of hypothetical consumers whose decisions, together with the technology and market structure, determine the operating characteristics of the system and whose welfare is the explicit subject of normative analysis."⁵

4. The exchange between W. W. Leontief and J. M. Keynes in the Quarterly Journal of Economics in 1937 is worth recalling. Leontief pointed out (quite incorrectly I believe) that Keynes assumed that the economy was neutral {Leontief used the term homogeneous of degree zero} with respect to changes in money wages. Keynes' reply was that the orthodox theory blandly assumed that the economy was homogeneous of degree zero with respect to the quantity of money and that this is an heroic assumption. eventually get the exact citation.

5 R. Lucas Models of Business Cycles, Yrjo Jahnsson Lectures, Basil Blackwell 1987 p. 20) The authoritarian tone of Lucas' assertion is worth noting: "Any economic model is going ..." implies that anyone who rejects the simplistic view of households and production used in neo-classical theory and insists upon an

In this view the objective of economic behavior is to maximize the present value of expected consumption sequences: this is not in any sense a result proven within the theory. This axiom of consumer utility is a postulates of the theory, not a theorem.

The "escape from the confusions of the quantity theory.." requires the development of an economic theory in which the non neutrality of money is an essential theorem: i.e. non neutrality inherent in the structure. Frank Hahn has often stated that the Arrow Debreau model, which he considers the best available starting place for serious economic analysis, has no place for money.⁶ This follows from the axiom of the reals, that ultimately

institutional context or who doesn't go along with the idea of consumer sovereignty, (that an economic model must explain how consumers are sovereign is not creating an economic model. Because of the ideological content of economics there is a strong pressure for theoretical conformity and wide support for an enforcer of orthodoxy.

In a similar vein Milton Friedman asserted
6. "The most serious challenge that the existence of money poses for the economic theorist is this: the best developed model of the economy cannot find room for it. The best developed model is, of course, the Arrow-Debreau version of a Walrasian general equilibrium. " F.H. Hahn "Money and Inflation", MIT Press, Cambridge Mass. 1983. To this economist Hahn's acknowledgement implies that a search must start for an alternative to the Arrow-Debreau / Walrasian theory. Hahn backs off from that implication of his remark by noting "A first, and to a fastidious theorist

agents care only about the real variables, Lucas' flows of consumption through time, and the mechanisms of the economy transfer this concern into the behavior of the economy.

Within any model based upon the Lucas or Hahn specification of what it is that economics studies, money can only affect behavior as it affects the formation of expectations. However as preferences and production technologies determine the stream of output and its distribution - in neoclassical theory distribution is but another facet of pricing - the impact of monetary changes is at most transitory. This is so because if units really know

difficult, task is to find an alternative construction without thereby sacrificing the clarity and logical coherence that are such outstanding features of Arrow-Debreau." But the history of science indicates that a "new theory" will never satisfy Hahn's fastidious theorist: an initial sacrifice of clarity and logical coherence is a necessary step in scientific progress. Science progresses by first recognizing that there are "too many" observations that are anomalies with respect to the normal science and the construction of a rough and ready model which covers the anomalies even as there are holes in the logic and ambiguity in the concepts. It takes the work that follows the breakthrough to cover the holes and remove the ambiguity. This implies that for a discipline to be a science the discipline as a whole needs to stand ready to discard well worked out theories and to start anew on the task of clarification and precision when a theory which covers the holes appears in a rough and ready form.

Incidentally when one cannot find any room for money one cannot find any room for finance and therefore one cannot explain the capitalist investment process.

the structure of the economy and know what was happening to money and why, they will adjust their behavior so that the impact of a monetary change is nil. In this view fiscal policy, in the sense of government deficits or surpluses, can affect the economy only as it changes the quantity of money in a manner that could not be anticipated: the view is that all demand management policies operate by surprises that impact upon agents as unanticipated changes in the money supply.

However such surprises have only transitory impacts upon real economic behavior; their only lasting effect is upon the price level. The surprise has an initial effect by affecting relative prices. As the reactions to the surprise works their way through the economy relative prices and outputs return to their natural levels as determined by productivity and preferences. In this way the quantity theory of money is validated.

3. New Keynesian

Within the Lucas specification, the money neutrality result can be overridden by making expectations something other than the outcome of a learning process in which agents find out how they fit into the preference system - production function structure which determines the equilibrium of the economy. This has spawned a new Keynesianism which makes much of the structure of information and the possession of private (asymmetric) information which leads to the system deviating from the result mandated by preferences and technology. Policy is conditionally effective if it affects the deviation or reinforces the market imperfections. Non-neutrality is achieved not as a fundamental property of the system but as result of special assumptions; ie imperfections.

The result of this Neo keynesian methodology is the game "My Rabbi is holier than yours", i.e. my special assumption on

expectation formation or market imperfections is better than yours.

IV. The Economics of Capitalism

It is obvious that more structure than is embodied in the pure arrow debreau model is needed if the consumption stream only postulate of Lucas and the axiom of reals of Hahn are to be abandoned and if money is to be non-neutral for causes more fundamental than the asymmetry of information. Chapter 1 of The General Theory reads:

I have called this book the General Theory of Employment, Interest and Money, placing the emphasis upon the prefix general. The object of such a title is to contrast the character of my arguments and conclusions with those of the classical theory of the subject, upon which I was brought up and which dominates the economic thought, both practical and theoretical, of the governing and academic classes of this generation, as it has for a hundred years past. I shall argue that the postulates of the classical theory are applicable to a special case only and not to the general case, the situation which it assumes being a limiting point of the possible positions of equilibrium. Moreover, the characteristics of the special case assumed by the classical theory happen not to be those of the economic society in which we actually live, with the result that its

teaching is misleading and disastrous if we attempt to apply it to the facts of experience."
(G. T. p3)

The attributes of the "economic society in which we actually live" include bankers and clients of bankers and firms (corporations) that are the proximate owners of the capital assets of the economy. Households, as the ultimate owners of wealth, own not titles to capital assets but financial instruments which are liabilities of firms, banks, and other financial institutions. That is the economic society is capitalist.

Keynesian economics is not "General", it is the economics of a modern capitalist economy. The General Theory is virtually "Schumpeterian" in the praises it bestows upon entrepreneurship. As a result Post Keynesian economics is one variety of analytical institutionalism. The behavior of the economy is affected by institutional changes, that are themselves the result of self

seeking activities and adjustments to past behavior.⁷ There is a nothing works forever aspect to the attitude towards policy that flows from the keynesian view.

Bankers and clients of bankers live in an $M > C > M'$ world: a project is financed, M is exchanged for promises to pay M' in the future, this M is spent on C , capital assets and produced investments, and the operations of capital assets in the economy yields M' . If all goes as envisaged when the initial contracts are written, M' is greater than M . Anticipated cash (money) flows are what sets the process off: the anticipated M' has to be sufficiently greater than M to overcome the doubts of the entrepreneur and the banker. The structure of the model for such an economy must include bankers and units that finance activity by using advances from bankers at the beginning, not as an afterthought. Thus the structure of the model has to include consuming units which own wealth, investing units which owe funds

7. H.P. Minsky "Central Banking and Money Market Changes", QJE, May 1957.

to financing units and banks and banking units which finance investment and provide instruments to households. Each agent in these classes of agents is a "self interest" operator, who transacts in pursuit of personal gain. Bankers are self interest operators and the structure of banking in an economy evolves in response to perceived possibilities of personal gain.

Monetary variables are in general liabilities of bankers. Non-neutrality of money requires that the monetary variables enter in an essentially different way in different parts of the system. Keynes' solution to this problem was to separate aggregate demand into investment and consumption demand and allow for two sets of prices, the prices of current output, including investment output (the CPI), and the prices of capital and financial assets (the Dow Jones). The proximate determinants of these two sets of prices are quite different.

Manufacturers and commercial firms recover their costs by way of the prices of current outputs. In addition these prices

carry profits in the form of realized mark ups on costs. It is these mark ups which enable units to meet their obligations to the owners of their liabilities. these current prices are those of investment and consumption utputs.

The prices of capital assets are the present value of expected future profits capitalized at a rate which allows for the problems that are forseen in acheiving these profits. The current market value of equity shares plus the current market vakue of outstanding long and short term debts minus the market value of the financial instruments owned by a firm are the current market value of a firm's capital assets as they are imbedded in the firm's market position.

V. The Formation of the Price Level of current output

Let us return to the passage I used from Keynes' introduction to the French edition as the Logo for this chapter.

To Keynes the price level is determined under the influence of supply and demand.

Whereas money or finance or credit enters in an essential way in Keynes investment theory, money, credit and finance do not enter in an essential way in his theory of consumption.

All economists are all familiar with one non-neutral money model. It is the fixed money wage IS-LM model of Hicks. The IS-LM model without a labour market and

without the Patinkin effect that has Δw shifting the C fn. in an appropriate way.

A bit of the history of thought. Pigou had a labour market determination of output prior to Keynes. One objective of the General Theory was to create a model of the economy in which the standard labour market equilibrium was not the determinant of an

economy's normal state or center of gravity. Most well trained economists were unwilling to give the monetary-financial sphere the full partnership in determining aggregate demand that Keynes work pointed towards. The Modigliani Miller theorem asserted that liability structures do not matter: the financial system cannot affect decisions.

Recent work by Caskey and Fazzari, Delong and Summers, Solow and Hahn tend to validate the Keynesian Theorem that if appropriate circumstances rule then an initial condition of unemployment is likely to be made worse, not better by price level flexibility. In this work, if $dp/dt < 0$ then either or both of the burden of private debts increases or the real (price level adjusted) interest rate increases.

Keynesians and macro-economists in general need to distinguish between relative price flexibility and price level flexibility. Relative price flexibility serves a useful purpose

in resource allocation whereas the usefulness of price level flexibility in response to excess supply is questionable.

3 The burden of debt is a useful concept for macroeconomic research. We distinguish classes of units in debt: business, households, government and international. During each accounting period a portion of the revenues of each economic agent has been prior committed by debt, equity and lease contracts: these prior commitments are on account of both principle and interest. In the stripped General Theory - Kalecki derived model we have for business firms

$$P_i = I, \text{ Profits equals investment.}$$

In the more complete statement we have

$$P_i = I + \text{Gov. Def} - \text{Bal Tr Def} + C(P_i) - S(w).$$

Internal finance is:

$$\text{Int Fin} = \text{Pi} - \text{Tx}(\text{Pi}) - (\text{Int} + \text{Prin}) \text{Bnds} - (\text{Int} + \text{Prin}) \text{Lns} - \text{Cust Div.}$$

The Minsky Diagram.

P

R

I

decision or

C

ex post.

E

INVESTMENT

Aggregate internal funds is a rectangular hyperbola in the price investment plane. For a fixed aggregate Profits (P_i) the greater the tax rate on profits, the level of indebtedness, the interest rate and the traditional dividend the smaller the aggregate internal funds.

Lenders and borrowers risk enter into the determination of investment. The P_k depends upon expectations of future P_i , upon the model of the economy that the agents of the economy whose expectations are relevant to investment have.

4. Outline of the Post Keynesian View.

1. The subject is capitalism

A. Characterization of Capitalism

This has taken on increased importance with the dissolution of the Stalinist model of socialism.

B. Varieties of Capitalism

2. Capitalist economy -> capital assets, bonds, firms as well as current output have prices: -> two sets of prices.

A. $P(K) = K(q, c, l)$

1. money enters pricing of assets through l and c

2. financial institutions integral to determining $P(K)$

B. $P(O) = C(W, r, \text{Mkt } P_w)$

1. W as a cost and P as a way of recapturing costs and a carrier of profits. Treating P as a way of recovering costs and a carrier of profits immediately focuses on business and banker decisions as being vital. Whereas households may be viewed as being solely concerned with the future flow of consumption, business and bankers in particular are concerned with the future flows of money.

2. Wage setting institutions as anchoring $P(0)$ and the link between aggregate demand and price level changes is conditional upon the institutional structure. Weak or strong trade unions: Do the firms sell commodities or products?

3. $M \rightarrow K \rightarrow M'$, $K \Rightarrow \Pi$ (profits). Π validates the contracts that exchange M for M' . This cash flow perspective is an adaptation of points made by marx.

4. Investment is the result of decisions made by business men that are financed. The standard Minsky diagram as taken up above.

5. The structure of payment commitments (liabilities), Hedge Speculative and Ponzi Finance as determining the vulnerability of the system to financial shocks.

6. Special Minsky Hypothesis w/r/t/ the structure of liabilities through time

A. Hedge => Speculative => Ponzi.

B. Profit seeking financial institutions as merchants of debt.

1. Profits equation for banks

2. The evolution of banking

3. Bankers as merchants of debt.

C. Making position by selling out position -> P_K collapses

1. Central Bank Prevents P_K from collapsing

2. Gov. Def. Sustains Profits -> P_K is

sustained

7. Profits (Π). Determination and prior commitment of through the liability structure. The complete Kalecki structure. (taken up above)

8. Yesterday, today, and tomorrow, Tomorrow introduces a subjective element in decision making Tomorrow can exist today only in the minds of decision makers. How are the relevant ideas about tomorrow formed today. The agents in the model have a model of the model. The two model hypothesis of Ben Friedman.

9. Hysteresis, chaos, deep structures; natural outgrowth of complex non linear dynamics.

A. Built in Stabilizers, Floors and ceilings.

B. Discretionary stabilizers

C. Thwarting incoherence

10. Intervention: the floors and ceilings arguments

A. Intervention can do nothing but mischief

B. intervention can be constructive

11. Requirements for a serious depression

12. Post war stabilization policy.