

SALIENT ATTRIBUTES OF POST-KEYNESIAN ECONOMICS

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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, say under the influence of supply and demand.

1 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.

2 The decisions of entrepreneurs, which provide the incomes of individual producers and the decisions of the 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 fix the equilibrium level of incomes, output and employment. (at each stage in conjunction with other factors) the price level as a whole through the influences of supply and demand so established.²

Introduction

A commonplace of the current discourse, whether the forum be the press or learned Journals, is an assertion that

Keynesian Economics is dead. Like peace the economics Keynes has never really had a chance. Post-Keynesian economics, while not wedded to taking every scrap of Keynes' General Theory and after writings as gospel, is a tender in economics that aims to give Keynes a chance.³

Perhaps the sole unifying element in the economics the economists to whom the label Post Keynesian is attached is found in the assertion that "The equilibrium interpretations of Keynes, that followed the lead of Hicks' Mr. Keynes and the Classics, missed the point of General Theory. The programs of research, interpretation and implementation that followed the lead of Hicks led the dominant "Keynesian" theory of the 1960's

1. the neoclassical synthesis, which in attempting to integrate the economics of the General Theory with equilibrium economic theory ended up subordinating it to the barter oriented general equilibrium theory,⁴ and

2. the ad hoc econometric forecasting models, which ignore the innate interdependence of the monetary - financial dimensions and the investment - consumption - production employment aspects of a capitalist economy.⁵

This Keynesian theory used the Phillips curve as its aggregate supply - price level determining sub model.

A Post Keynesian commandment for economic theory, that is fully consistent with the preface to the French edition

that is cited at the head of this piece, is "Thou shalt not dichotomize what is commonly called the real from the monetary and financial in explaining the behavior of the capitalist economy." This may well be the main message of the General Theory and this message was lost in the development of mainstream macroeconomics.

A major proposition of the post-Keynesian view is that the General Theory pointed towards a rejection of the notion of equilibrium as a state towards which the economy gravitates and from which, once achieved, it will deviate only as a result of exogenous shocks. Keynes did write in terms of short period equilibria, but Keynes used the term equilibrium in the peculiar Marshallian sense in which equilibrium is a set of values that are implicit in the concatenation of conditions that may be assumed to be unchanging for the purposes of an argument, but which, in fact, do change, in a not necessarily deterministic manner as a result of the processes which start from a momentary set of values. 6

As a result Post-Keynesians view the economy as a series of interdependent processes whose behavior generates the economy's path through real calendar time. The interactions of endogenous processes often produce outcomes of apparent coherence but from time to time the result tends to become incoherent.

p 57 text on L.

What has passed as Keynesian economics is a variant equilibrium analysis in which the equilibrium need not be full employment and economic policy could be effective altering the level of employment.⁷ Neither underemployment equilibrium nor policy effectiveness is sufficient to make an argument Post-Keynesian. The salient attributes that make an argument Post-Keynesian is that financial institutions and the way product and labor markets are organized are integrated in the determination of the path the economy through time.

The passage from Keynes' introduction to the French edition of the General Theory is the "Motto" or taking a point for this exposition of Post Keynesian Theory because of statements Keynes makes:⁸ 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 and prices which are determined "under the influence of supply and demand"
3. The view that the level of money wages ... and the state of markets and of competition determine supply and demand
4. the assertion that money and the quantity of money "have done their work at an earlier stage (prior to the present)"

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.

The problem that Keynes set for himself, to "escape from the confusions of the Quantity Theory," remains a vital problem for economists. 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 advisory establishment reflects "the confusions of the Quantity Theory".

The essential proposition of the quantity theory of money is not that the price level is determined by the quantity of money but rather that money and finance are neutral. The incongruity of offering advice on the construction of a financial system on the basis of an economic theory which can find no place for money is disregarded by the advice givers and the advice receiver. Without understanding how the so-called financial and real aspects of capitalist economies are integrated, the consequences of alternative institutional arrangements and the performance of the economy cannot be understood.

becomes a matter of chance whether policies will contain the endogenous tendencies for market economies to fly off in incoherent behavior or channel the dynamic forces of capitalism to assure that creative ends are attained.

2. Neutrality

The essential aspect of the Quantity Theory of money is not that the price level is determined by the quantity of money but rather that money is neutral.⁹ 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).¹⁰ 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."¹¹

This doctrine of consumer sovereignty is an asserted attribute of economies. The Post-Keynesian framework of analysis recognizes that the investment decisions in a modern capitalist economy are removed by several "degrees of separating" from the hypothetical consumer. Perhaps the parenthetical

how to market structure in the Lucas assertion is comparable or greater significance in determining system behavior through time than the consumers to whom Lucas assigns such power.

In this view the view stated by Lucas the objective economic behavior is to maximize the present value expected consumption sequences: this is not in any sense result proven within the theory. Consumer sovereignty is postulate, not a theorem, of knee classical economics.

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 is derived from the structure. Frank Hahn often stated that the Arrow Debreu model, which he considered the best available starting place for serious economic analysis, has no place for money. This follows from the axiom of the reals, that ultimately agents care only about the real variables, Lucas' flows of consumption through time, and the mechanisms of the economy transform the concern into the behavior of the economy.¹³

Within any model based upon the Lucas or F specification of what it is that economics studies, money can only affect behavior as it affects the formation of expectations. However as invariant preferences and production technologies determine the stream of output a

its distribution - in neoclassical theory distribution but another facet of pricing - the impact of monetary changes is at most transitory. This is so because if we really know the structure of the economy and know what is happening to money and why, they will adjust their behavior so that the impact of a monetary change is nil. In the view of fiscal policy, in the sense of government deficits and 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 as surprises that impact upon agents as unanticipated changes in the money supply.

However such surprises have only transitory impact upon real economic behavior; their only lasting effect is upon the price level. The surprise has an initial effect affecting relative prices. As the reactions to the surprise work 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 neo-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 and reinforces the market imperfections. Non-neutrality is achieved not as a fundamental property of the system but as a result of special assumptions; i.e. 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 imperfection is better than yours.

The Rationality of Agents.

The units in Post Keynesian analysis are broken into the following classes: household, businesses, "bankers" and governments. Each agent in these classes of units seeks his own good as modified by the ethics of the culture and each organization, household, business, bank or government, has the problem of coordinating the self-seeking of its units into an effective team behavior that promotes the achievement

the unit's objectives. Maintaining morale is a problem any organization that depends upon team behavior.

The agents are rational: the Post Keynesian position 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. 14

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.

IV. The Economics of Capitalism

It is obvious that more structure than is embodied in the pure Arrow Debreu model is needed if the consumption

stream only postulate of Lucas and the axiom of reals of F are to be abandoned and if money is to be non-neutral f causes more fundamental than the asymmetry of informatic 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 actually live" include bankers and clients of bankers a firms (corporations) that are the proximate owners of t capital assets of the economy. Households, as the ultima owners of wealth, own not titles to capital assets k financial instruments which are liabilities of firms, bank and other financial institutions. That is the econom 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 bestowed 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. A nothing works forever attitude towards policy flows from the Keynesian view.

Bankers and clients of bankers live in an $M > C >$ world: when a project is financed M is exchanged for promises to pay M' in the future, this M is spent on previously produced capital assets and currently produced investment outputs, and the operation of the capital assets and investment output by a firm with a particular place in the economy yields M^* . If all goes as envisaged by the entrepreneur when the initial contracts were written, M^* is greater than M' which is greater than M . Anticipated cash (money) flows are what sets the process off: the anticipated M^* has to be sufficiently greater than the promised M' to overcome the doubts of the entrepreneur and the banker that M is hazarded.

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 afterthought. Thus the structure of the model has include consuming units which own wealth, investing units which owe funds to financing units and banks and banking units which finance investment and provide instruments households. Each agent in these classes of agents is "self interest" operator, who transacts in pursuit personal gain. Bankers are self interest operators and the structure of banking in an economy evolves in response 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 the system. Keynes' solution to this problem was separate aggregate demand into investment and consumption demand and allow for two sets of prices, the prices 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 the prices carry profits in the form of realized mark ups costs. It is these mark ups which enable units to meet their obligations to the owners of their liabilities. The

current prices are those of investment and consumption outputs.

The prices of capital assets are the present value expected future profits capitalized at a rate which allows for the problems that are foreseen in achieving the profits. The current market value of equity shares plus the current market value 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.

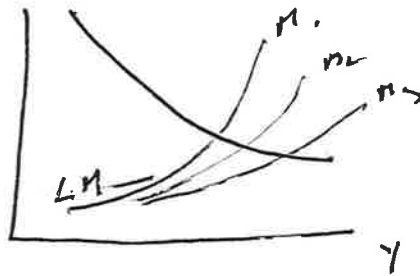
V. The Price Level of Current Output

Let us return to the passage from Keynes' introduction to the French edition I used 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 model in which money is not neutral. It is the fixed money wage IS-

model of Hicks. This IS-LM model without a labour market illustrated by the familiar diagram:



In this model the demand, IS is independent of changes the money supply and dependent upon money wages and the curve is basically independent of the wage rate a dependent upon the money supply. Increasing the wage rate without affecting the money supply will raise nominal income and increasing the money supply will raise nominal income. This model is not homogeneous of degree zero in the money supply. It also is not homogeneous of degree zero in the money wage rate.

A bit of the history of thought. Pigou had a labour market determination of output prior to Keynes. The 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 centre of gravity. Most well trained economists were unwilling to give the monetary-financial sphere the full partnership in determining aggregate demand that Keynes worked 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 Summer Solow and Hahn tend to validate the Keynesian Theorem that appropriate circumstances rule then an initial condition unemployment is likely to be made worse, not better by price level flexibility. In this work, if $dp/dt < 0$ then either one 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.

The burden of debt is a useful concept for macroeconomic research. It is necessary to distinguish among classes of units in debt: business, household, government and international. During each accounting period a portion of the revenues of every ^{unit} economic agent has been prior committed by debt, equity and lease contracts: the prior commitments are on account of both principle and interest. In the stripped General Theory - Kalecki derivation model we have for business firms

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

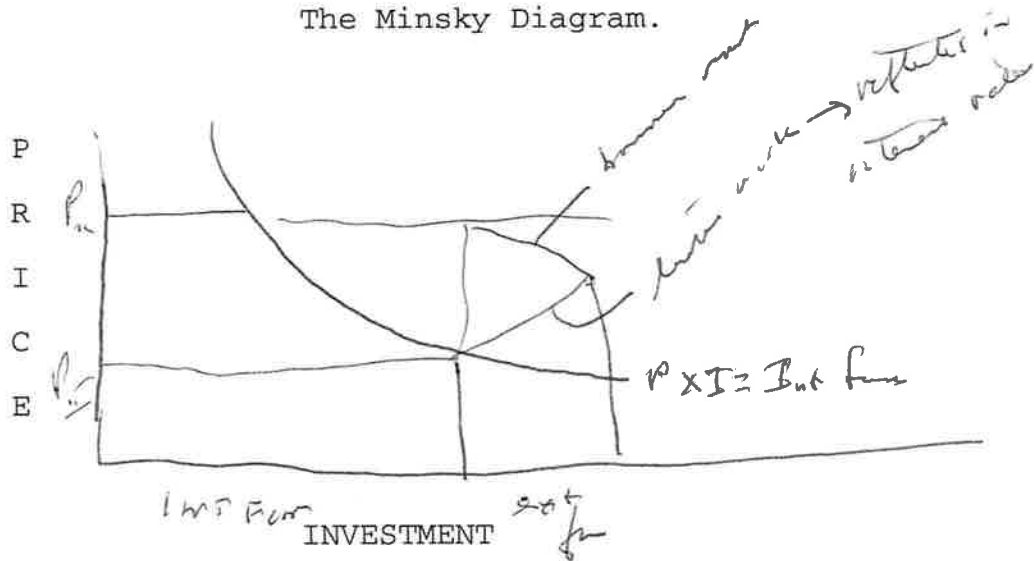
In the more complete statement we have

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

Internal finance is

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

The Minsky Diagram.



Aggregate ^{expected} internal funds is a rectangular hyperbola the price investment plane. For a fixed aggregate Profit (P_i) the greater the tax rate on profits, the level

indebtedness, the interest rate and the traditional divide 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: *Salient, Financial, Managerial + Many More*

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

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

1. money enters pricing of assets through l and

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 cos and a carrier of profits. Treating P. as a way of recovering costs and a carrier of profits immediate 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 $P(0)$ as the link between aggregate demand and price level changes 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 businessmen that are financed. The standard Minsky diagram as taken up above.

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

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

A. Hedge => Speculative => Bonze.

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 collapses

PK

1. Central Bank Prevents PK fr

collapsing

2. Gov. Def. Sustains Profits -> PK is sustained

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

8. Yesterday, today, and tomorrow, Tomorr introduces a subjective element in decision making Tomorr can exist today only in the minds of decision makers. F are the relevant ideas about tomorrow formed today. T

agents in the model have a model of the model. The t
model hypothesis of Ben Friedman.

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

- A. Built in Stabilizers, Floors and ceiling
- B. Discretionary stabilizers
- C. Thwarting incoherence

10. Intervention: the floors and ceilin
arguments

- A. Intervention can do nothing but mischief
- B. Intervention can be constructive

11. Requirements for a serious depression.

t2. John M. Keynes. Introduction to the French edition c
the General Theory. Collected Works Vol 13 pp. I have
taken the liberty of breaking what Keynes wrote as one
paragraph into these sound bites.

3. See Klamer's for the disdain th
most of the mainstream economist hold the Post Keynesian
thrust: for personal reasons I relish the comments of Robe
Solow. Post Keynesian analysts has done better at analysi
and explaining the progress of advanced capitalist economi
over the entire post war period as well as over recent yea
than the representative orthodox economist.

4. The introduction of a simplistic supply and demand for labor as determining an equilibrium employment and real wage which dominate the aggregate demand determining relations setting the equilibrium of the economy is the key step in forcing the Keynes structure into an equilibrium framework. The result has been the research program which requires that macroeconomic relations to conform to what are taken to be microeconomic conditions.

5. These forecasting models were initially derived from the tools used in macroeconomic planning during World War II. During the war economy and the early post war period the close interrelations between investment and the banking and financial structures were attenuated. It is not at all surprising that models which ignored finance were adequate for forecasting purposes in the first decades after World War II.

6. At several points in his argument Keynes assumed that there was an equilibrium implicit in a set of initial conditions and adjustment processes, but the changes that the search for this equilibrium brings about changes both in initial conditions and the search process. Therefore, at best, the implicit equilibrium is changing even as adjustments are made on the basis of existing disequilibria. There is no need for such a process to converge to a unique equilibrium.

7. Keynes was not without responsibility for the integration of his theory into the "equilibrium" structure of neoclassical theory. He speaks of the equilibrium of orthodox theory as one of a multitude of possible equilibria and, he accepted, however mistakenly the JR Hicks interpretation of his theory.

8. This statement may well have been Keynes' last comment upon the substance of the General Theory.

9. 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 c the exact citation.

10.. Such transitory non-neutrality can lead to deviating from an assumed equilibrium. Ever since Frisch and Slutsky economists have been aware that a moving average of random deviations will exhibit cyclical properties. Much of the real business cycle literature is a case of old wine in new bottles.

11. 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 neoclassical theory and insists upon an institutional context or who doesn't go along with the idea of consumer sovereignty as a prior (consumer sovereignty cannot be a prior, anyone who holds this must explain how consumers are sovereign in the context of what is in the world in which the consumers live.) 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.

.12 "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-Debreu version of a Walrasian general equilibrium." F.H. Hahn "Money and Inflation", MIT Press, Cambridge Mass. 1983.

Hahn's acknowledgement implies that a serious economist must start searching for an alternative to the Arrow-Debreu / Walrasian theory. Hahn backs off from that implication with his remark by noting "A first, and to a fastidious theorist difficult, task is to find an alternative construction without thereby sacrificing the clarity and logical coherence that are such outstanding features of Arrow-Debreu."

The history of science indicates that a "new theory" will never satisfy Hahn's fastidious theorist: an initial sacrifice of precision and logical coherence seems to be 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 then proceeds to construct a rough and ready model which covers the anomalies, even as there are recognized holes in the logic and ambiguities in the concepts of the New. It takes the work that follows the breakthrough to cover the holes and remove the ambiguities.

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 precising, when a theory which is perhaps non-fastidious appears that the holes, albeit in a rough and ready form.

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13 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.

14 Israel and Ingham

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