

## DISCUSSION OF THE TAYLOR PAPER

Hyman Minsky

For this conference John B. Taylor has prepared a survey paper titled "Recent Developments in the Theory of Stabilization Policy." Such a survey is useful as it develops the critical issues in the field, indicates what progress has been made, defines the questions on the research frontier and serves as guide through an important literature. Its usefulness depends upon the competence, taste and vision of the author.

John B. Taylor holds a position and has the credentials that bespeak of competence. The paper before us is an academic exercise that illustrates the author's command over a literature which is sometimes technically demanding. The paper also shows that he is able to ignore the developments in economic theory and the economy which are especially relevant for stabilization policy and the theory thereof. Hence in reading Taylor's paper I was led to question the taste and vision that guides him and the literature he surveys.

The theory of stabilization policy is important only as it serves as a guide to action in an unstable world. The topics and the literature that Taylor has chosen to cover are not useful to anyone seriously involved in stabilization policy; one cannot derive any guide for action with respect to the serious issues of stabilization policy from

---

Dr. Minsky is Professor of Economics at Washington University in St. Louis.

this survey or from the underlying papers. Therefore the paper serves no useful purpose aside from being a showcase for Taylor's talents. In a similar vein, the underlying literature may be best interpreted as the products of a game played for academic advancement.

In selecting what to discuss Taylor ignores the literature which quite clearly demonstrates that neo-classical aggregate economics, which focuses on price or wage rigidities and which introduces money as an exogenous variable, will not do. The literature he focuses on looks to refining and making more precise the very neo-classical formulations whose logical consistency and empirical relevance has been demolished by developments in theory in recent years. However one rule of the game Taylor and the authors of the reviewed literature play is that research is to be carried on "within" the neo-classical model; thus taste and vision conspire to rule out the relevant and the serious because it is unorthodox.

The most important developments for the theory of stabilization policy during the late 1960s and 1970s were not in the literature but in the "world." The observations that theory has to explain and the developments in the economy that stabilization policy has to contend with changed radically in the mid 1960s. In particular, stabilization policy now has to deal with threats and partial realizations of financial instability as well as with stepwise increasing unemployment and a stepwise acceleration of inflation.

For all who take "our economy" rather than the literature about economics derived from the neo-classical (monetarist and pseudo-Keynesian) research program as the subject matter of their research, the world underwent a marked change of state around 1965. The

instability that policymakers have to contend with after 1965 is of a different order of magnitude and the potential consequences of mismanagement of stabilization policy are much more serious than earlier in the post-war period. The financial system and practices evolved from 1945 to 1965 so that the system, which had been virtually impervious to financial instability, became highly susceptible. Between 1945 and 1965 there were no threats of a financial crisis of the scale which could usher in a deep depression; in the years that have followed there have been at least three such threats within the United States, as well as a number of threats to the stability of the international financial system. Whenever financial instability threatens to trigger a debt-deflation process, policy interventions by both the government and the central bank can really make a difference in the path of the economy through calendar time. Nothing in the paper before us exhibits an appreciation of the change in the character of the "stabilization problem" over the years surveyed.

Once the potential consequences of the mismanagement of policy becomes so much more serious, the importance of economic theorizing about stabilization policy increases. In particular, economic theory needs to be relevant in the sense that the critical situations -- in this case financial instability and the way in which financial variables affect aggregate demand -- are well defined within the theory. If theory is based upon misspecifications of the economic process and the problems faced by policymakers, then theory cannot be relevant: garbage in -- garbage out applies to theory construction as well as to computer modeling.

The problems of the economy have been exacerbated because policy-makers have been guided by insights and conclusions drawn from neo-classical theory. Neo-classical theory is an inappropriate tool for dealing with instability, for financial or any other instability is foreign to this theory. In neo-classical theory any deviation from equilibrium must be due to exogenous developments and any sustaining of a disequilibrium must be due to "barriers." Neo-classical theory is able to explain instability only by postulating the existence of one or more devils, be they trade unions, OPEC, monopoly, the central bank, government or democracy. Because economic policy advising over the past decades has been largely monopolized by practitioners of neo-classical theorizing our current economic malaise is in good measure iatrogenic. The physicians, including our hosts, have served to make the disease worse.

A theory of stabilization policy is needed if and only if the economy is unstable. There is no sense whatsoever to the concept "stabilization policy" if the beast is stable. When Wallace, Sergent, et al. play their games by positing a system whose behavior is determined by elements that are independent of the variables that, in their specification, stabilization policy directly affects, then the proposition that policy does not matter is true not by demonstration but by assumption. As the instability that is so evident in the world cannot occur within their models, the games they play only serve to show that their models and the empirical tests that they perform are irrelevant for our economy. In my view the strong proposition that emerges from one literature surveyed by Taylor, is that this large body of work is irrelevant for the world in which we live. If economics is to be

anything more than an academic nit-pick, theory and theorizing has to go in other directions than those represented in the literature Taylor surveys.

If economic theory is to be relevant for stabilization policy in our economy, the questions that must be addressed are "why and in what way is our economy unstable?" Note the phrase "our economy." The subject matter of any theory that aims to be relevant is not an abstract economy devoid of institutional detail but rather an economy that is rich in specific institutional detail and which exists at a particular time and has a special history. The problem of economic theory is to select the essential details of the institutional framework to model: the aim of the theorizing is to show causal connections that lead to the observed instability. The hope is that by showing how instability is generated the theory will indicate policy interventions which can attenuate if not eliminate instability.

Although the lines of argument examined by Taylor are largely irrelevant to the topic of this conference, "Stabilization Policy: Lessons from the 1970s and Implications from the 1980s," there were developments in theory over the past decade that are relevant to stabilization policy: Taylor either is ignorant of these developments or chose to ignore them. The developments in economic theory in recent years that are relevant to the theory of stabilization policy are:

- 1) Progress in general equilibrium theory
- 2) The two-Cambridge debate
- 3) The recovery of the "lost" financial elements in Keynes.

Because I am writing a comment rather than a survey article I will just devote one paragraph to each of these developments.

During recent years progress in general equilibrium theory made the conditions that need to be satisfied for the key propositions of this theory to be valid precise. One conclusion of these developments is that the coherence and coherence-seeking theorems of general equilibrium theory are not unconditionally valid for a decentralized set of markets with capital assets, money, banking and financial institutions such as we have. An implication of this conclusion is that the introduction of money as an "exogenously determined" instrument designed to facilitate trade into a general equilibrium model in which relative prices determine consumption and production decisions throws no light whatsoever on the behavior of a capitalist economy with a "money" that is created in a banking process. There is no established microeconomics that can serve as a basis for a macroeconomic or monetary theory that is relevant to stabilization policy as long as the results in microeconomics depend upon highly artificial constructions to explain the existence of and changes in money.<sup>1</sup>

---

<sup>1</sup>Of the general equilibrium theorists, perhaps F. H. Hahn has been most open about the limitations of theory. See F. H. Hahn: "On Some Problems of Proving the Existence of an Equilibrium in a Monetary Economy," in R. Clower (ed.), Monetary Theory (Penguin, 1969). "Professor Friedman's Views on Money," Economica, February 1971, 38 (149), pp. 61-80. On the Notions of Equilibrium in Economics (Cambridge: Cambridge University Press, 1973).

Also see

K. Arrow and F. H. Hahn, General Competitive Analysis, (San Francisco: Holden Day, 1971), especially Chapter 14, The Keynesian Model, pp. 347-369. In introducing their discussion they note that in their earlier proof that a temporary equilibrium always exists they "...supposed that at the moment an equilibrium was shown to exist, economic agents had no capital assets as we know capital assets. It is interesting to note that Arrow and Hahn head Chapter 14 with a quotation from W. B. Yeats, The Second Coming, "Things fall apart, the centre does not hold."

The two-Cambridge debate, ostensibly about capital theory, was really about the validity of the integration of Keynesian theory with the earlier neo-classical theory. The critical issue that the debate clarified centered around the pricing of capital assets. A capitalist economy is characterized by two price systems. One is the price system of current output, the second is the price system of capital assets. The price system of current output largely depends upon wages and mark-ups, whereas the price system of capital assets depends upon current estimates of future expected profits, current estimates of the uncertainties involved over various horizons, and current capitalization rates of profit streams. In an economy with the monetary, banking and financial systems that characterizes capitalist economies the capitalization rate is a "monetary" phenomena and the two price systems can and do vary relative to each other. Inasmuch as the ratio of the capitalized values of expected future profits to the supply price of investment output is a determinant of investment demand, aggregate demand is sensitive to the ratio of these two sets of prices. The two-Cambridge debate is of vital importance for the theory of stabilization policy because it leads to the conclusion that if the ongoing processes of an economy affect this ratio it will lead to endogenous change in the performance of the economy: i.e., variations in the ratio of employed to available resources will result. The two-Cambridge debate made it clear that the "proofs" in the literature that a growth equilibrium of an investing capitalist economy exists depend upon the assumption that the present value of future profits always equals the perpetual inventory valuation of capital assets. But the equality of the two valuations of capital assets is an attribute of equilibrium. The

"proofs" of the coherence of an investing capitalist economy does not hold; the proofs depend upon first assuming that a condition of coherence exists.<sup>2</sup>

The third theme in economic theory in the 1970s that is relevant to stabilization policy is the recovery of the financial and monetary aspects of Keynes' revolution in economic theory. There is something very queer about the standard interpretation of Keynes as embodied in the various IS-LM models. This essentially non-monetary view of the economy is paraded as a representation of the theory of the major economic theorist whose life's work was almost entirely on money and finance. In the recovery of what lost in the Hicks-Hansen-Klein-Modigliani-Patinkin tradition it became clear that underlying Keynes' theory was the premise that to understand capitalism it is necessary to model capitalism. This means that it is necessary to model the way positions in capital assets and investment are financed, the dependence of this financing upon the banking and financial system, and the effects of financing relations first upon investment and then on income, employment and prices. In this analysis, in a capitalist economy unemployment exists when the long run expectation of profits by business men together with capitalization rates that reflect portfolio preferences in an uncertain world lead to demand prices for capital assets that are "too low" relative to the supply prices of investment output. The demand price for capital assets as well as the supply price of investment

---

<sup>2</sup>This is the outcome of the two-Cambridge debate on Capital Theory, although the standard discussion and summary of the debate, G. C. Harcourt, "Some Cambridge Controversies in the Theory of Capital," (Cambridge, England: The Cambridge University Press) does not make this clear.

output depend upon financing terms. Financing terms, which cannot fully be captured by a single interest rate, reflect whether or not recent and near term expected behavior of the economy lead to sufficient realized and expected profits that almost all of the payment commitments on outstanding obligations are expected to be fulfilled. By integrating money, finance, expected profitability and the supply price of current output into a theory of effective demand, Keynes developed the basis for a theory of the economic processes of a capitalist economy that explained why such an economy is "so given to fluctuations." Instability is an inherent characteristic of a capitalist economy in Keynes' theory. Furthermore, Keynes' theory is rich, for even though it does not lead to a set of policies which eliminate instability, it does lead to policy moves (fiscal policy) which offset the effects of instability upon employment and aggregate income.<sup>3</sup>

As the 1970s matured, history advanced the argument from the simple question of "why is our economy unstable?" The question that economic theory had to address if it was to be relevant to stabilization policy became "why is it that our economy is so much more unstable in the 1970s than in the 1950s?" The issues that theory had to

---

<sup>3</sup>Among the "key works" in the reintegration of money are: Joan Robinson, Economic Heresies, (London: MacMillan, 1971). P. Davidson, Money and the Real World, (New York: John Wiley & Sons, 1972). J. A. Kregel, The Reconstruction of Political Economy, (London: MacMillan, 1973). S. Weintraub, A Keynesian Theory of Employment, Growth and Income Distribution, (Philadelphia, Chilton 1966). Victoria Chick, The Theory of Monetary Policy, (London: Gray-Mills Publishing Ltd., 1973). H. P. Minsky, John Maynard Keynes (New York: Columbia University Press, 1975).

address can be made even more precise by dividing the question into two parts: "Why is it that our financial system seemingly is more unstable, more vulnerable to threats and partial realizations of financial crises (both domestic and international) since the middle 1960s?" and "Why is it that inflation became more serious as the 1970s progressed?"

Once economic theory moves from the study of an economy to the study of our economy and once the various faces of the instability of our economy are taken as the problems theory must address then the need to model money, banking and capital-asset pricing moves to the foreground. In Taylor's survey, which presumably deals with stabilization policy, banks and banking are nowhere discussed. We all know that in our economy money is created by the actions of profit seeking banks and other financial institutions, that the assets acquired and liabilities issued by banks evolve in response to profit opportunities, and that the mix and activities of financial institutions also evolve. This implies that an economic theory applicable to our economy will integrate banking and financing markets into the determination of capital asset prices, investment decisions and the determination of the domain of stability of the economy. You cannot understand something by ignoring it. The literature discussed by Taylor's paper ignores banking and Taylor, by his selection of the literature to discuss, apparently believes you can understand and give guidance for stabilization policy for our economy by ignoring banks and banking.<sup>4</sup>

---

<sup>4</sup>It would be useful if today's economists were acquainted with H. Simon's "Rules vs. Authorities in Monetary Policy," Journal of Political Economy, 1937.

It has long been argued that the instability of the economy is related to the structure of liabilities by which positions in capital assets are financed.<sup>5</sup> Experience during the 1970s lends substance to this argument. The relation between the debt financing of capital assets positions and the need to fulfill commitments on maturing debt by rolling over debts - by issuing new debts - is a critical determinant of the stability of an economy with sophisticated finance. As a result of the maturing of the flow of funds data (poorly designed as the set of accounts may be) it is possible to relate the evident instability of our economy to the growth of the debt structure relative to income and the increased complexity of financial relations. In order to answer questions about why our economy is unstable it is necessary to fully integrate the monetary mechanism with system behavior. The literature Taylor surveys is "vague" or "silent" on the processes by which positions in capital assets are financed.

One striking characteristic of our economy that became evident in the 1970s is the link between financial instability and accelerating inflation. Since the mid 1960s whenever the Federal Reserve follows the rules for monetary policy to constrain inflation that were developed on the basis of the experience of the 1940s and '50s, a financial crisis develops; when the Federal Reserve and the government succeed in containing the crisis so no deep and long recession follows, the financial base is laid down for inflation at a higher rate. Since the middle 1960s we have had three "cycles" of inflation, constraint,

---

<sup>5</sup>I. Fisher, "The Debt-Deflection Theory of Great Depressions," Econometricas, 1933.

incipient financial crises, lender of last resort intervention, federal deficits, renewed expansion, financial innovation and accelerated inflation. In each cycle this "sequence" took four to five years to work its way through the system.

Any theory that is useful for stabilization policy will need to explain why the economy reacted to variations in the rate of growth of the reserve base, or in one manner in the years prior to 1965 and in another manner in the years since 1965. For an economic theory to do this it need contain a sub-theory of "financial stability and instability." Nowhere in Taylor's survey or in the literature he surveys is this aspect of the stabilization problem addressed.

Any theory of the capitalist process needs to focus in the decisions to own capital assets, the techniques used to finance control over capital-assets and the investment and investment financing processes. Obviously a theory, if it is not merely mechanistic, which explains decisions today that are based upon future revenues and costs will include a theory of expectation formation. The fundamental problem in the making of decisions today that involve revenues and costs over a significant time horizon is that the future is uncertain; the future cannot be represented by a set of nice stable probability functions over well-defined outcomes.

The need to make decisions in an uncertain world leads to one question, "how does one behave rationally in an irrational world?" An "irrational world" is one in which what happens is not explained with the requisite precision by the accepted theory. As long as theory does not explain a phenomena with the exactness required for decision, then the world of that phenomena is irrational. If, for a capitalist

economy, the world conforms to expectations derived from standard theory a large part of the time, even as it behaves in a manner (instability) inconsistent with this theory a part of the time, then decision making formulas that use the accepted theory will not determine the behavior of a rational man. In a world where diverse types of behavior can occur, theory is effective as a guide to decision and policy exactly as it yields information as to which of the diverse types of behavior of the economy is likely to rule. If economic theory is to be an ingredient in the formation of expectations by a rational man, it needs to relate the expected behavior of the economy to history and the evolving institutional arrangements.

The Franklin National bankruptcy of 1974 and what followed is a concrete example of a situation in which policy actions truly affected the behavior of the economy. In May of 1974 the Federal Reserve, under Arthur Burns, opened the discount window wide to Franklin National so that all of Franklin National's overseas and money market liabilities were validated. The Federal Reserve by this action aborted a wave of withdrawals from the international banks and assured the "world of international finance" that the offshore liabilities of large, if not respectable, American banking institutions were implicit contingent liabilities of the Federal Reserve. This and related interventions by the Federal Reserve and cooperating institutions in 1974-75 together with massive government deficits made it virtually certain that the recession of 1974-75 would be contained and that the subsequent recovery would lead to serious balance of payments difficulties and inflation at an accelerated rate. Policy may not always matter, but

there are junctures in the history of an economy when policy really matters: 1974-75 was one such juncture.

It is the duty of economists who parade as knowing something about stabilization policy to be aware of such issues. Neither the literature Taylor discusses nor Taylor in his paper seem to be aware of these problems. Theory that is useful for stabilization policy needs to offer guidance to central bankers and other policymakers when they are faced with the need to act in a situation such as ruled in 1974-75. By this criteria, neither Taylor's paper nor the literature he chose to report on are useful.