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# James Tobin's "Asset Accumulation and Economic Activity": A Review Article

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James Tobin, *Asset Accumulation and Economic Activity,* Yrjö Jahnsson Lectures, Chicago, Ill., The University of Chicago Press, 1980, pp. xv, 99, ISBN 0-226-80501-8. $13.00.

In the introduction to this brief volume, which contains his Yrjö Jahnsson and Paish Lectures of 1978, Tobin asserts, "These are troubled times for macroeconomics, both theory and application to policy" (p. viii). By macroeconomics Tobin means the "neo-classical synthesis" and by troubled times he means that "Since the mid-1960's the degree of consensus once commanded by the post-Keynesian "neo-classical synthesis" has decayed . . ." (p. viii). However the "neo-classical synthesis" is not identical with macroeconomics. Even though these are troubled times for Tobin's brand of macroeconomics these are good times for other brands; especially those which remain true to Keynes' aim in *The General Theory,* which is to understand why our economy (i.e., a capitalist economy with sophisticated and evolving financial institutions) is so given to fluctuations.

In examining ideas and tendencies in macroeconomics during a time of intellectual ferment, it is necessary to develop a taxonomy and a nomenclature. In what follows three major tendencies are identified: Macroeconomic orthodoxy or the neo-classical synthesis, which encompasses both orthodox (1950 and 1960) Keynesianism and traditional Monetarism, the new classical economics, and fundamentalist Keynesianism. Fundamentalist Keynesians hold that the essential theoretical insights of *The General Theory* were lost with the dominance of the neo-classical synthesis and that the lost theoretical insights are the foundations for a deeper understanding of how capitalist economies with complex financial systems behave than can be achieved by way of either the neo-classical synthesis or the new classical economics.

The fundamentalist Keynesians were initially labeled Post-Keynesians, but recently the term has come to be used for all who are not willing to throw all of Keynes out of the corpus of economics. As a result the term Post-Keynesian has lost its power to identify. This review essay is written from a particular fundamentalist Keynesian perspective that emphasizes internal destabilizing forces due to financing relations. A representative sample, not at all complete, of fundamentalist Keynesian authors who have written on topics that overlap with those Tobin addresses here are Victoria Chick, Paul Davidson, Jan Kregal, Hyman Minsky, Basil Moore, Joan Robinson and Sidney Weintraub.

Tobin's restricted vision, which leads him to identify macroeconomics with the neo-classical synthesis, is evident throughout this

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volume. As a result little in the book advances our understanding of how our economy actually operates. What virtue it has stems from the critical assessments it offers of the ultra neo-classicism of the "new classical economics." These lectures make it evident that the orthodox version of Keynesian economics, a variant of which is Tobin's view, has little, if any, explanatory power for today's economy.

Since the emergence of monetarism in the late 1950s a process of accommodation between orthodox Keynesianism, derived from Hicks and Hansen, and monetarism, associated with Friedman, has taken place. By the 1970s the two sets of doctrines were being interpreted as differing only in empirical judgments; it has often been argued that the differences come down to views about the specification of the various functions in a "consensus" IS/LM formalization. In this process of accommodation the critique of capitalism as an economic system that is central to Keynes' thought disappeared from orthodox Keynesian analysis. Although "Keynesian economists," such as Tobin, believe that active policy is necessary to sustain full employment, they are hard pressed to explain how the economy malfunctions so that active policy becomes necessary.

In these lectures Tobin defends Keynesian orthodoxy as stated in two propositions: (1) The IS/LM formalization is a valid way of structuring economic therapy, and (2) Active policy (monetary and fiscal) is needed. But if active policy is necessary, then either the system is inherently flawed, in that by its own workings it generates "unsatisfactory states," or, if "unsatisfactory states" result from outside shocks, the unaided process of adjustment to a satisfactory state is either too slow or has undesirable consequences. Tobin is mute on questions of the flaws, if any, of the economy and thus on why active policy, which he supports, is needed. The result is a strangely empty set of essays which are often excellent in detail and sharp in the criticism of the selected views he deigns to discuss even as they are devoid of any integrated theoretical insights that help explain the acknowledged turbulence of the economy since the middle 1960s.

In recent years the economy has not delivered anything like the close approximation to full employment at stable prices such as was delivered in the twenty years prior to the mid-1960s. Neither orthodox Keynesian nor monetarist policies have been able to cope with "turbulence" and "stagflation." Policy makers, so confident in the 1960s, became Alibi Ikes in the 70's; the misadventures of the economy being blamed on "unnatural" shocks. The performance of the economy and the policy failures have undermined the legitimacy of the neo-classical synthesis in both its monetarist and orthodox Keynesian versions.

Furthermore, developments in economic theory, such as the new classical economics and the two-Cambridge capital theory debate, have exposed theoretical flaws in the neo-classical synthesis. The neo-classical synthesis integrates Walrasian microeconomics and Keynesian macroeconomics: Its validity depends upon their compatibility.

The new classical macroeconomics of rational expectations and continuous market clearing shows that the doctrines of Walras, which are based upon market clearing, and of Keynes, which are based upon investing behavior, are incompatible; the neo-classical synthesis is internally inconsistent. The assumptions necessary for the proof that a market clearing equilibrium exists in a multi-market system are inconsistent with both the existence of persistent unemployment and the ability of policy to affect output. Because preference systems and production functions always prevail in determining

Walrasian equilibrium, it follows that macroeconomic policy measures can only enjoy transitory success.

The two-Cambridge debate in capital theory, as well as the growing awareness among theorists of the limits to the applicability of the Walrasian system, has shown that there is no logically impeccable microeconomic foundation for macroeconomic theory. General equilibrium on Walrasian lines exists only if the economy is without capital assets, investment, uncertainty and money that is "created" by banks. Efforts to extend the proof of the existence of a Walrasian equilibrium to an investing capitalist economy with banks have failed. Furthermore the analysis of capital asset pricing under uncertainty shows that if an investing capitalist economy in which financial innovation can take place were somehow placed in equilibrium, then, over time, disequilibrating forces operating through asset prices and financing relations would cumulate and rupture the equilibrium.

The demonstrated shortcomings of the neoclassical synthesis leaves economists with two logically consistent alternative paths. By acting on faith that what has been proven for the special case of a trading system is also true, even though unproven, for producing and investing systems economists can go all the way with the logic of Walrasian analysis. This is the path that the new classical economists take. The second internally consistent path starts with financing and investing processes that determine aggregate demand. Aggregate demand translates into budget constraints that position particular demands, even as costs of production determine supply. In this view individual markets affect overall demand only as profits are affected. In this fundamentalist Keynesian theory policy may diminish, even as it cannot eliminate, the tendency towards instability.

Tobin defends the orthodox Keynesianism of the neo-classical synthesis. The position he stakes out is that "... carefully used and taught it (the IS/LM formalization of Keynes introduced by Hicks in 1937, parenthesis HPM) is a powerful instrument for understanding our economies and the impact of policies upon them" (p. 73). By sticking to IS/LM Tobin disregards the inconsistency between the Walrasian equilibrating formulation of the economic process which underlies IS/LM and the observations and experience of endogenous instability that Keynes set out to explain: an instability which is so evident since the middle 60's and which Tobin uses when he introduces a "Fisher effect" in his first lecture.

Tobin defends orthodoxy against the theoretical and econometric findings of the new classical economics. Tobin ignores the fundamentalist Keynesian critique of the IS/LM formalization. However much of what is valid in his comments on the new classical macroeconomics rests on arguments that are more at home in the endogenous instability of fundamentalist Keynesianism than in the IS/LM interpretation. Thus what is valid in Tobin undermines the IS/LM formalization of macroeconomic theory which he aims to defend.

The volume consists of four essays. The first deals with the real balance effect. The second and third deal with the new classical economics of rational expectations and continuously clearing markets. The fourth essay takes up portfolio theory and asset accumulation—the theoretical domain that Tobin staked out early in his career. Even though Tobin deals with accumulation and from time to time recognizes the existence of uncertainty, the main thrust of these essays is to uncover steady states.

In the first essay Tobin reconsiders real balance effects. Real balance effects are the mechanism that allows the neo-classical

synthesis to hold that in the short run less than full employment can rule and policy can be effective, but in the longer run full employment will be brought into being by market processes and in real terms policy will be ineffective. In the history of macroeconomics the real balance effect was the essential stepping stone for the rehabilitation of the classical economics.

In his analysis of real balance effects Tobin looks back to Pigou rather than to Patinkin. In Pigou's initial version the mechanism positioning the consumption function reflected accumulation rather than money balances. Early statements of the consumption function assumed that the marginal propensity to consume was less than the average propensity. This implies that as economic progress results in rising per capita income the proportion of income that will have to be invested to achieve full employment increases, even as the production function assumptions imply that the pay-off from accumulation decreases. This paradox of a "need" for a rise in the investment ratio even as investment's productivity decreased was an important ingredient in Alvin Hansen's stagnation hypothesis.

Pigou argued that accumulation increases capital assets per capita even as it leads to higher potential income per capita. The increased real wealth presumably decreases the tendency to save out of income, so that full employment can be achieved without ever raising ratios of investment to income. If savings will only take place if there is a positive expected return, then the real wealth mechanism assures that full employment with zero investment is possible. In this manner the pessimistic conclusion that stagnation and poverty in the midst of potential plenty are the inevitable fate of capitalist economies was overturned.

Patinkin, following Viner's important review of Keynes' *General Theory,* transformed the real wealth effect into a real balance effect. Patinkin's argument is that the ratio of money balances (properly defined) to the price level of current output affects consumption in the same way as accumulation. In particular, a falling price level combined with an unchanging nominal money supply will lead to ever higher ratios of consumption to income at every level of employment; presumably this effect can lead to a situation in which consumption equals income. For this process to work it is necessary to assume that a decline in money values of output and capital assets does not adversely affect creditors and debtors, so that falling prices leads to lower levels of income and employment.

Well before Pigou and Patinkin made their contributions, Fisher and Keynes had argued that an interactive deflationary process, what Fisher called a debt-deflation, would be triggered by too great a fall in asset prices and business profits and that this process will make any initial excess supplies or unemployment worse. Using this "Fisher effect," Tobin argues that if a large scale price deflation takes place it will dominate any real balance effect. If this is so, then falling prices lead to a downward shift in the consumption function. Furthermore lower nominal profits will lead to a downward shift in the investment relation. Thus Tobin concludes that the dynamics that follow from price deflation can be destabilizing so that ". . . active policy, along with market responses, is part of the social mechanism for maintenance or restoration of equilibrium" (p. 19).

The Fisher effect is interesting because the economy is not always "sitting on the edge" of an iterative process that will amplify any initial deviation from full employment into a catastrophic collapse. The research question raised by the Fisher effect is to identify the characteristics in the financial structure that makes a deviation amplification response an endogenous phenomenon and how such a financial structure is brought into being. It is

necessary to see through the monetary veil in financing. The introduction of the Fisher effect forces to the fore the question of how conditions conducive to financial and economic instability are generated even as the economy functions well. Tobin does not dig into such issues. The critical question of whether the conditions conducive to instability are generated endogenously or exogenously cannot be asked within an IS/LM formalization where money is divorced from financing. So far as IS/LM formulations are concerned financial instability is a non-event. Once questions of the determination of liability structure under uncertainty and the sources of the profit flows that enable business to carry debt are raised, the nice and polite picture of an economic system that can be modelled by IS/LM, and within which employment, income and prices can be fine tuned by fiscal and monetary measures, vanishes. An economy with the Fisher effect is a beast that cannot be easily tamed: From time to time it will rush to inflations or to mass unemployment as its internal distemper dictates.

To Tobin the Fisher effect just positions the IS curve of the IS/LM formalization. Yet underlying the Fisher effect are asset valuation processes and an array of financial commitments that are foreign to the basic IS/LM formalization. This matters little to Tobin's subsequent argument, for the Fisher effect does not appear in the remainder of the volume. In Tobin's first chapter systemic disequilibrium, although basically unexplained, is permitted to appear. It is then banished from the argument.

Tobin's second essay, "Policies, Expectations and Stabilization," deals with the new classical economics of rational expectations and continuous market clearing. This is the strongest because it is the least formal of the essays: unencumbered by a need to overtly defend IS/LM, Tobin, on the attack, makes good sense. However, as he rips into the new-classical economics Tobin makes clear the "heroic" assumptions that underlay the Walrasian equilibrium. Tobin's view is that "the service the authors (Arrow-Debreu) have rendered us in this ingenious construction (the set of contingent markets) is to show how impossible it is for the economy, and for economists, to cope with the future" [p. 23]. However, even if economists "cannot cope" with the future, the agents who live out their lives in the economy do manage decisions that deal with the future. The impossible decisions required by Arrow-Debreu and the implication of the contingent market transformation of time, so that economic life is the routine of fulfilling the contracts as the specified dates and contingencies (of the once and for all general equilibrium solution) occur, highlights the irrelevance of general equilibrium theory of the Arrow-Debreu formulation for the world economists must try to understand. But if Arrow-Debreu goes, then the assumption that there is a market clearing equilibrating process that underlies the behavior of the economy—the fundamental assumption of IS/LM macroeconomics—also goes. Tobin's attack on the new classical economics rests on arguments that are part of the fundamentalist Keynesian case against the neo-classical synthesis.

One lasting gain from the contribution of the "rational expectation" school is that the serious question of the formation of expectations can no longer be handled by quiet convention but must be explicitly treated. Not only must economists henceforth distinguish between expectation formation in theory and the model of expectation formation that is used because it is amenable to econometric analysis, but the theory of expectations must also take into account the knowledge that decison makers can be expected to have.

In his discussion of rational expectations views, Tobin recognizes that as the economet-

ric analysis and the mathematical ingenuity of the creators of today's economics increased, the psychological sophistication of the analysis of expectations decreased. The "economic analysis" of contingent markets and information replaced analyses that involved the psychology of making decisions in the face of uncertainty. Furthermore because all that we can ever think we have observed is from the past, any data based model of expectations formation must be extrapolative. Thus the orthodox Keynesian IS/LM and large scale macroeconomic models do not in general incorporate a sophisticated analysis of expectation formation. This is a break with Keynes, for the formation of long term and short term expectations, as well as the relation between the two, is central to the argument of *The General Theory*.

Tobin does not discuss Keynes' treatment of the formation of expectations. Starting with his *Treatise on Probability* Keynes was seriously concerned with the logic of making decisions in a world that the decision maker does not fully understand. The decision problem as formulated in the *Treatise on Probability* underlies the analysis of expectations in *The General Theory*. If we define a "rational domain" as an area of experience in which the "theory" is good, so that actual outcomes will vary but slightly from forecasts derived by using the theory, and define an irrational domain as one in which the "theory" is not good in the above sense, Keynes' position is that investment decisions in a capitalist economy involve assumptions about the behavior of variables which fall into the "irrational domain." The question relevant for investment decisions is "How does one behave rationally in an irrational world?" The decision process in Keynes is rational in the sense in which that term is used in today's "rational expectations" literature, except that the decision maker knows that the "theory" he is using in making decisions is not very good. When this is so then uncertainty prevails.

In *The General Theory* and in our economy, unsatisfactory theory and uncertainty mainly affect investment and financing. Capital asset prices, financial asset prices, investment and current financing are largely determined by present profit expectations over the longer term and the insurance protection provided by various assets against possible disastrous events in the uncertain future. Because the theory that guides their decisions is acknowledged by the decision-makers to be unsatisfactory, experience that deviates from what was expected, albeit without much confidence, will affect the "theory." Changes in the "theory" can have a large effect upon relative asset prices.

Inasmuch as the price of money is always unity, changes in relative prices are always changes in nominal prices. In particular the nominal prices of capital assets relative to the prices of investment output, can change rapidly. As the ratio $P_K/P_I$ (Tobin's q) is a major, although not the sole, determinant of investment (financing conditions are another major determinant) the behavior of rational "man" leads to instability in investment. This can lead to cumulative debt-deflations or open ended inflations unless effective policy intervenes.

The distinction between consumption and investment in Keynes rests in good part on differences in the expectational environment in which decisions to produce consumption and investment goods reside. The profits relevant to consumption goods production are generated by the sale of the goods whereas the profits relevant to the demand price for investment goods are those that are to be earned by using the investment output in production. The major difference between the rational expectations doctrines and Keynes' views of the making of decisions is that

today's rational expectations theorists always assume that decisions based upon today's information will lead to and sustain equilibrium whereas for Keynes expectations can change rapidly and may be such that the economy rushes away from equilibrium.

The Fisher effect that Tobin uses in Chapter I to counter the purported equilibrating effect of price deflation can best be understood and was described by Fisher as the result of interactions between realized prices and profits and expectations of prices and profits. The trouble with the Fisher effect, and the view of expectations formation, profits and asset prices underlying the Fisher effect (which were better spelled out by Keynes than by Fisher) for conventional theory, is that the Fisher effect is inconsistent with any "equilibrium" notion of the results of the economic process; the economic process embodies endogenous disequilibrating effects which not only lead to minor cycles but also, when the underlying asset valuation and financing relations are ripe, to major disruptive cumulative processes.

The continuous market clearing doctrine of the new classical economics, and its corollary, the treatment of economic fluctuations as moving equilibrium, may seem mind boggling to one who looks at the world as it is, especially when this doctrine is applied to the labor market where its implication is that all unemployment is voluntary unemployment, but in truth continuous market clearing is a theorem within Walrasian Theory. Of course, markets clear in the sense that no one is holding any commodity at today's prices unless the items are worth more to the holder than the sales price net of transaction costs. But the important economic question is, "How is the set of market clearing 'spot' prices related to the scheduling of production and decisions to invest?" Private employment in a market economy is derived from production not from exchange. The question for the economic theory of a capitalist economy is how are production and investment related to market clearing prices for existing commodities.

Although the Walrasian formalism that underlies the new classical economics and neo-classical synthesis says nothing about the relation between market clearing prices, production and investment, this was the central issue that Marshall examined. The triad of market clearing prices, production with given facilities and the creation of facilities (investment) are handled within a Marshallian framework in terms of market, short run and long run "periods." Neither production nor investment are taken into account in market periods. All that happens is that prices are determined for existing stocks, labor is neither offered nor hired.

Markets clear in the market period. The stocks of goods and assets are given and all beneficial exchanges are made so that, conditional on transaction costs, each unit holds what it wishes. In this process money prices are determined for all goods and assets. These money prices determine achieved profits on recent productions and are inputs to decisions to produce (Marshall's short period) and to invest (Marshall's long period). The signal from the "present" to the future, when production and investment takes place, are always profits, realized and expected. Supply and demand equilibrium is a market period concept and in each market period commodity and asset markets clear in the trivial sense of all "desirable" trades are made. This market clearing view of what happens however does not apply to the "labor" market, for in the "labor" market jobs offered are derived from profit anticipations from producing consumption and investment goods.

Tobin in his examination of the "market clearing" arguments takes the view that the

equilibrium of Walrasian economics is a longer run equilibrium and that the model allows for shorter run disequilibrium. Yet if the limitations of the Walrasian system for intertemporal relations are taken into account, then it follows that the Walrasian trading game approach is fully valid only for the shifting of given stocks of outputs or assets among units. The weakness of the market clearing approach to economic theory is not in the emphasis on continuous market clearing for commodities but in the assumption that the labor market is not in principle different from the exchange of goods for goods, with or without the mediation of money, thus ignoring that the demand for labor is always derived for the prospective profitability of production.

Chapter III, "Government Deficits and Capital Accumulation" was initially presented as a Paish lecture in 1978. This lecture is mainly concerned with the proposition advanced by Barro and others that ". . . the burden—or more neutrally the effect—of government is fully measured by the size and content of real public expenditures. It is independent of how these expenditures are financed" [p. 50]. Thus government expenditures financed by debt or by money creation cannot do any good in expediting the recovery from a severe drop in income and employment.

Tobin's rebuttal to the new classical proposition refers to the econometric literature and to parameter values within a consensus type macroeconomic model. The argument in this chapter is from "within" a common tradition, whereas in the first two chapters Tobin's argument is largely based upon elements such as the Fisher effect and the inadequacy of Walrasian theory that are drawn from outside the tradition.

In this chapter Tobin uses a long term equilibrium growth framework where the return on capital assets reflects productivity. The question Tobin raises is whether capital assets and government debt are substitutes in portfolios. The role of government debt in creating demand for assets that directly or indirectly reflect capital assets is ignored in this essay in the volume, although such complementary relations appear in the next chapter.

Chapter IV deals with "Portfolio Choice and Asset Accumulation." Tobin examines the question of stocks and flows in economic theory and presents an accounting framework for modeling asset accumulation. The question of how stocks and flows are modelled really come down to the nature of a theory that is relevant for an accumulating capitalist economy, for stocks do not enter into the behavior of an accumulating socialist economy in the same way as in a capitalist economy. In particular in any investment theory for a capitalist economy the explicit or implicit price of capital assets is an important variable. The existence of prices for capital and financial assets is special to a capitalist economy, and any economic theory that claims to be relevant to capitalist economy needs to explain them.

Tobin sticks to the IS/LM framework. Within this framework he raises the question as to whether the IS/LM model refers to "short run" in which there are no feedbacks by way of accumulation to the positioning of the IS/LM relations or whether the static analysis must allow for accumulation. Tobin solves this non-problem by adopting a discrete time model in which the variables affected by accumulation are fixed within a period but jump between periods. The reason I called it a non-problem is that it vanishes if the Keynesian macroeconomics are wedded to Marshallian theory with its triad of exchange, production and investment related periods and decisions. In such a Marshallian perspective expected profits, in part reflecting the profits carried by current prices, are the determi-

nants of production and investment even as the current production of investment is, through the multiplier, the main determinant, in a totally private enterprise economy, of income.

The climax of Chapter IV is the presentation of "A Framework for Macroeconomic Models of Asset Accumulation"; asset accumulation includes the liabilities issued by business and government. This analysis begins with the flow of funds matrices for changes in asset holdings by sectors. The flow of funds analysis is a quadruple entry system, for each transaction is an exchange between two "balance sheets" and in each balance sheet there is a credit and a debit. If all measures are gross, so that toal sectoral debt goes up when one "corporation" or "bank" lends to another "corporation" or "bank," then when gross flows are added to the matrix of gross inherited and surviving stocks the matrices become sectoral balance sheets in which the prices and quantities of all assets and liabilities need to be explained. By substituting behavior equations for some entries, Tobin derives a model in which asset prices are functions of parameters and givens.

There are two basic weaknesses in Tobin's analytical set-up. The first is that he ignores the cash flow characteristics of the various balance sheet positions, in particular the articulation between the cash flows generated by assets and the payment commitments on debts. The second is that he doesn't recognize that once the prices of capital and financial assets are explicitly taken into account along with those of current output there are two price levels in the "economy." With two price levels the logical structure of the neo-classical synthesis collapses.

In the first essay Tobin recognized that the total inside—business and household—financial assets exceeds the outside—government debt, fiat money and specie—assets. The nominal value of inside assets can be viewed as the capitalization of gross cash flows they are expected to yield. For capital assets and financial instruments which are direct and indirect claims on the earnings of non-financial business the cash flows that enable commitments on liabilities to be fulfilled are current and expected gross profits. As Keynes emphasized, a constitutional weakness exists whenever long assets are financed by short liabilities, for the cash flows expected from using capital assets then fall short of the payment commitments on liabilities over the near term. In these cases financial commitments can be fulfilled only by rolling debt over or selling assets.

In his first chapter Tobin introduced the Fisher effect. The Fisher effect depends upon the interrelations among payment commitments on debts, the sources of cash to fulfill commitments, and the value of assets. In particular the gross profits of business can no longer be technologically determined as production function analysis would have it. Gross profits have to be a variable that depends upon system performance: the Kalecki analysis of profits is an example of what is needed.

The value of capital-assets can be treated as the capitalized value of the profits earned by the capital assets. Two questions remain: What determines gross profits and what determines the capitalization rate? One way of approaching this is to follow Keynes and set up an analysis of the relative price of assets which earn "quasi-rents," have "carrying costs" and embody insurance in the form of "liquidity." All assets, including investment outputs that are assimilated to the stock of assets from current production, must be owned. Keynes argued that a price system of capital assets was generated out of portfolio operations. Inasmuch as a dollar's price is always unity, this is a set of money prices. In Tobin's analysis, which implicitly is derived from Keynes, the prices of capital assets are

determined in the flow of funds matrix. Money, which appears in the flow of funds matrix as a liability of banks, is used up as an explanatory variable for the determination of the prices of capital and financial assets. Therefor it is not "available" to determine the price level of current output, as it does in the quantity theory tradition.

Tobin sets up a complicated interdependent market framework to determine the prices of capital and financial assets. These functions are disaggregated versions of the liquidity preference relation and therefore the price level that appears in Tobin's versions of the LM function must be the price level of capital and financial assets.

As has perhaps been forgotten the IS curve is a way of writing $Y = C + I$. The prices in IS are the prices of current output. Unless one assumes a constant relation between the price level of capital and financial assets and that of current output, the IS and LM curves are in different planes or, if the price levels are buried in an r, Y exposition, the curves shift around relative to one another as the price levels change.

Tobin's ccmplex and detailed asset valuation framework, which is apparently mainly aimed at econometric model-building, clearly reveals the inconsistency of the IS/LM formalization. A debt is owed to Tobin, for in digging into the details that enter into the LM formalization he had to make the content precise. When this is done, the internal inconsistency of the framework is revealed.

The price level of current output, which most importantly determines the prices that must be offered if capital assets are to be produced, is determined by expected costs. The expected or bid price that draws forth production must cover the labor, material and financing costs, and it will reflect the "monopoly power" of producers. For Walrasian equilibrium to exist the present value of profits for capital assets in use must equal the depreciated historical costs of the capital assets—and this must be true in each period. But if portfolio analysis such as Tobin uses means anything, the price level of assets changes as changes occur in the relative quantities of assets, profits, and the value placed upon protection against unfavorable contingencies. Thus the price level of current output and the price level of capital assets change relative to each other. The Fisher analysis as well as portfolio valuation theory indicate that the "q" that Tobin uses to represent the ratio of the value of capital assets relative to the price of investment output should be broken into its component parts: $P_K$ the price level of capital assets and $P_I$ the price level of current output. In particular sharp increases in the discount rate applicable to uncertain profit streams and in the interest rate charged by banks to finance "production" lower the price of capital, $P_K$, even as they raise the price of investment output, $P_I$. If this leads to $P_I$ being greater than $P_K$, investment collapses.

There are valid and useful and insights in Tobin's analysis. The pervasive flaws in Tobin's work are his continued faith in the validity of the IS/LM formulation and in the conservative position that traditional fiscal and monetary policy actions are capable of finely adjusting income and employment and stabilizing profits. When Tobin summarizes his opposition to the new classical economics by stating: "The view that the market system possesses, for unchanging settings of government policy instruments, strong self-adjusting mechanisms that assure the stability of its full employment equilibrium is supported neither by theory nor by capitalism's long history of economic fluctuations" (p. 46), he also undercuts the validity of the IS/LM formalization for understanding our economy. Yet even though he introduces the Fisher endogenous disequilibrating process he remains within the IS/LM formalization: Fisher is introduced as a debating point, not as an integral part of the analysis.

Three years have passed since Tobin deliv-

ered these lectures. In these three years turbulence in financial markets, prices and output increased. Once again the Federal Reserve intervened to abort a tricky liquidity and solvency situation. In the United States a sharp swing away from the approach to economic policy that Tobin represents took place. A strange and shallow beast, supply side economics, which consists of glib sloganeering and arguments from ideology has become a leading force in policy formation. The "victory" of the "supply side" agruments in the corridors of power is due to the weakness of the analysis and the poverty of ideas for policy that emanated from the orthodox policy advising macroeconomists, rather than to logical or empirical power of the new doctrines.

A postulate underlying the "new" economic policy of Reagan is that the economy is inherently stable or if it is unstable, it is because of government; The "inflation" and "stagnation" of the economy over the past decade and a half are due to government policies. However over the same period there were a number of very serious threats of a Fisherian debt deflation process which were aborted. The "aborting" actions involved interventions by the Federal Reserve to refinance or protect particular markets and an explosion of the government's deficit. Although the details of government spending and taxing may be ripe for reform, big and actively interventionist government has been responsible for containing the downside movements of the economy.

The "in the world" macroeconomic relations that "grew up" over the years since the New Deal have been extraordinarily successful in achieving a major aim of the New Deal, which was to prevent further major depressions. Orthodox macroeconomists, such as Tobin, cannot claim this success as validating their analytical framework and their policies, because "debt-deflations" and "deep depressions" cannot be explained by their theory. There is no rationale within the theory for the Fisherian debt-deflation reaction that Tobin introduces in Chapter I. The debt-deflation reaction is not in any way connected with the IS or the LM functions of orthodox theory. Financial turbulence is foreign to the Walrasian economic theory that underlies the IS/LM formalization. The "ad hoc" nature of the Fisher reaction and the failure to confront the logic of two price levels in Tobin's argument shows that IS/LM cannot carry the weight of explaining how our economy now behaves. If economic theory is to be a handmaiden of policy that succeeds in avoiding the tragedy of a great depression even as it moderates the inflationary pressures that have been associated with success in avoiding a great depression, finance and profits must be integrated into the theory. Neither the new classical economics nor Tobin's orthodox macroeconomics are a useful economic theory for today's capitalist economics.

As a result of the inadequacies of the neoclassical synthesis and the new classical macroeconomics only one feasible research path is open. Progress requires that economists take what can be seen in the economy seriously and study the interrelations among the financial structure, capital asset prices, investment and profits in an economy that is explicitly capitalist. The aim of the analysis must be to understand why capitalist economies cannot now attain a close approximation to full employment at stable prices by the working of "free markets" and to ascertain whether there exist structure and policy regimes by which such a close approximation can be once again attained and then sustained. Unfortunately Tobin's *Asset Accumulation and Economic Activity* is not a contribution to progress on these fronts.

# Reviewers 1980–1981

Addison, John T.
Amsden, Alice
Bass, Frank
Baumol, William J.
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Brontenbrenner, Martin
Canes, Richard E.
Canterbery, E. Ray
Casas, F. R.
Caves, Richard
Christofides, L. N.
Clague, Ewan
Cross, John
Darby, Michael
Denton, Frank
Downing, Paul
Du Boff, Richard
Dutta, Manoranjan
Ekstein, Otto
Elyasiani, Elyas
Everson, Carol
Farber, Henry
Ferber, Marianne
Foley, Duncan
Folsom, Roger
Gorlin, Alice
Gray, Peter
Greenfield, Robert L.
Greenhut, Melvin
Heilbroner, Robert
Henry, George
Holmes, W. Lynn
Horvath, Janos
Jazairi, Nuri
Katsenelinborgin, Aren
Kenen, Peter
Klotz, Ben
Kubursi, Atil
Lipsey, Richard
Lott, William
Mandle, Clay
Mansfield, Edwin
Miller, Richard
Mirus, Rolf
Mitchell, Doug
Moggridge, Donald
Mohabbat, Khan
Murrell, Peter
Nadiri, Ishaq
Needham, Douglas
Nell, Edward
Newman, Peter
Noll, Roger
Nugent, Jeffrey
Paroush, Jacob
Peltzman, Sam
Peterson, Willis
Phillips, Herbert
Pindyck, Robert
Plotnick, Robert
Pryn, Frederick
Rea, Samuel
Ried, Frank
Rima, Anguil
Rizzo, Mario
Robert, Blaine
Rodgers, James
Rutton, Vernon
Saffran, Bernard
Samuels, Warren
Sandell, Steven
Schmalensee, Richard
Schwab, Robert
Shropshire, William
Siggle, Eckhard
Smith, Gordon
Soper, John
Stigler, George
Sun, Norman
Sweeney, James
Telser, Lester
Turovsky, Stephen
Uhr, Carl G.
Vaugh, Karen
Wagner, Samuel
Waud, Roger
Wilder, Ronald
Williamson, Oliver
Wolfson, Alan
Wright, Arthur
Yaari, Uzi
Yeager, Leland B.
Zaidi, Mahmoud