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The Legacy of Keynes

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Content Articles in Economics

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The year 1983 was the hundredth anniversary of the birth of Keynes. This sparked a series of reevaluations of Keynes's contribution to current economic thought and practice. In America, these reevaluations came at a time when the mainspring of economic policy and the understanding of economics by the public, the policy establishment, and leading academic economists owe little to Keynes. Keynes's reputation as an economist and as a guide to public policy was much higher in 1963 and 1973 than in 1983.

There is a paradox in Keynes's fall in esteem. With respect to our economy, Keynes set out to explain two main problems: why our economy was given to fluctuations and whether it was possible to achieve a closer approximation of full employment than had been achieved thitherto. Keynes's answer to the policy question was that government expenditures and tax receipts could serve as a steering wheel, and that one requisite for such a steering wheel to be effective is that government be a bigger part of the economy than it was before the Great Depression. Our success since World War II in avoiding anything more severe than the recession of 1981–82 has been due in large part to the effects of our much bigger government.

Furthermore, since 1966 episodes of financial instability have occurred. The possibility of instability of the financial structure was very much part of the structure of Keynes's thought. Keynes's most important book—*The General Theory of Employment, Interest and Money*—was written in the aftermath of the collapse of the American financial structure over the years 1929–39 (Keynes, 1936).

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As Keynesian theory was transformed into quite simple doctrines to guide public policy, much of what Keynes wrote was ignored. Some of these neglected aspects of Keynes's thought are brought to the fore in the following pages. The argument is that economic policy would be more effective in confronting present and looming problems if some of the neglected aspects of Keynes's thought were taken into consideration in policy formation.

An important and useful way of contrasting the strain of economic analysis represented by Keynes with those strains rooted in more orthodox economic theory is by examining their differences in terms of allocation-efficiency and stabilization-efficiency. This suggestive distinction was recently drawn by Jean and Peter Gray (1981). Given this distinction, it is necessary to investigate the possibility that economic programs, institutional innovations, evolution of usages, and changes in structures that tend to improve allocation-efficiency may lead to the deterioration of stabilization-efficiency.

In the orthodox, Walrasian-based (barter-type) system, exchanges simultaneously determine relative prices and resource allocation. Instability is not explained; rather, it is assumed to be caused by exogenous events, those impinging upon the economy from outside. Money and financial market institutions and instruments are simply lubricants and conduits for servicing real-goods markets; they are neutral. In this view, changes in the quantity of money affect the level of prices and income in the short run, but in the longer run only the price level is affected. Because of these assumptions, Walrasian-based theory is not capable of evaluating the stabilization-efficiency of economic structures and institutions. Only a theory capable of explaining instability can be used to evaluate the stabilization-efficiency of the economy.

In *The General Theory*, Keynes put forth a theory of why our economy is "so given to fluctuations" and why these fluctuations are eventually contained (Keynes, 1937). An apt way of interpreting *The General Theory*, in light of the Grays' insight, is that, unlike Walrasian-based theory, it provides the ingredients for the analysis of the endogenous destabilizing properties of an economic system and identifies policy measures that would dampen or amplify instability.

A theory that studies allocation-efficiency is naturally concerned with resource utilization. But an economy "creates tomorrow" by creating human and material resources. Keynes's integration of money with real and financial asset prices and asset prices with investment is an economic theory that focuses on resource creation. In Keynes's type of analysis, institutions (especially the financing institutions) are well defined and the analysis begins with the determination of the price system of assets. Whereas orthodox theory is static, Keynes's theory deals with production by profit-seeking producers that influences the demand for labor and the behavior of investing units in historic time.

Keynes's analysis of money and asset prices and how they affect the stability of a resource-creating economy is discussed in Part 1. The implications for our economy of the relations between resource creation and economic stability are examined in Parts 2 and 3.

PART 1. ACCUMULATION AND MONEY

To Keynes, the accumulation process under capitalist conditions revolved around the pricing of capital goods, the cost of production of investment output, and financing conditions. Money and the operations of the institutions that deal in and create money (banking, generically speaking) affect the prices of capital assets, the production costs of outputs with significant gestation periods, and the payment commitments that are specified in financing arrangements.

Even before *The General Theory* appeared in 1936, Keynes had introduced money into the analysis of price phenomenon by noting:

> There is a multitude of real assets in the world which constitute our capital wealth—buildings, stocks of commodities, goods in course of manufacture and of transport, and so forth. The nominal owners of these assets, however, have not infrequently borrowed *money* in order to become possessed of them. To a corresponding extent the actual owners of wealth have claims, not on real assets, but on money. A considerable part of this 'financing' takes place through the banking system, which interposes its guarantee between its depositors who lend it money and its borrowing customers to whom it loans money wherewith to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is a specially marked characteristic of the modern world. (1973, vol. 9, p. 151)

Keynes took seriously the institutional reality of a banking system that both borrows and lends. Thus, lending by banks "creates" money and money-like assets and finances economic activity and the holding of capital and financial assets. If the balance sheets of businesses and financial institutions are consolidated, the end result is a balance sheet with *real assets* (both durable plant and equipment and goods in the process of production) on one side and equities (common stocks), bonds, and money-like liabilities on the other side. Money is like a bond in that it finances positions in real capital assets. There are payment commitments attributable to debts exchanged for money that would be evident in unconsolidated balance sheets, but that disappear with consolidation.

This linkage of money and the financing of the ownership of wealth and of activity generally leads to the Keynesian view of the relation between money and asset prices. Each asset yields utility and disutility to its owners. The utility is derived from income (profits, interest, and dividends) and liquidity (the ability to trade the asset for money); the disutility results from carrying costs (storage, financing charges) and "wear and tear" (user costs) of the asset. Keynes used the symbol y for the asset's income, l for its liquidity, and c for its carrying costs. The price of any asset reflects the utility derived from the sum of $y + l + c$ and is such that, on the trading margin, the utility is the same per dollar for all assets.

There is a natural "numeraire" for the pricing of assets. A dollar (i.e., the unit in which transactions are denominated) is an asset that yields no or little income, y, and has no carrying costs, c. Its only return, liquidity, l, is subjective. The utility of liquidity depends upon the time sequence of pay-

ment commitments for which money is required, the felt assurance of income receipts to meet them, and the quantity of money available. Given that the price of a dollar is always one, the prices of other assets will be to the price of a dollar as the utility of $y + c + l$ of the asset is to the utility of the liquidity embodied in one dollar; for example, the greater the total number of dollars, the lower the utility of the liquidity embodied in one dollar and the higher the dollar price of assets (which are valuable because they yield money income, even though they possess little liquidity).

The veil of money-as-finance that Keynes identified yields a price system for assets. The assets that are priced are not only the real assets and inventories involved in the production process, but also the financial instruments that are used to finance the ownership of assets. *New* financial instruments must be assimilated with the existing stock of financial instruments. (Whereas the expected yields from real assets are determined by the specifics of markets and management, the yield promised by a financial instrument is the same for all instruments with the same margin of safety, after allowing for the prospect of the underlying asset.) Thus, "financing" real asset ownership and investment by debts involves judging prospects for the returns from particular real assets relative to the market-determined terms on financial instruments.

Real assets (accumulated through previous investment) used in production generate an inflow of cash over the lifetime of the assets. The debt instruments (financial assets to lenders) used to finance the purchase of these capital goods constitute liabilities that require a cash outflow to meet interest and principal payments. An investment requires the simultaneous acquisition of an income-generating real asset and a payment-generating liability. The mixed game of luck and skill that is business involves selecting (betting on) combinations of specific income-yielding assets (investments) and liabilities (financing instruments) with market-determined payment commitments. This means that the cash payment commitments for financing investments are determined by the price system of financial assets. With the carrying costs, c, for capital assets determined, the minimum yields (flow of y) that an investment project must be expected to generate are given.

If, for example, the subjective value of liquidity, l, increases, then wealth owners adjust their portfolios, causing the dollar price of financial assets that yield income, y (which provides some l), to fall, thus raising the market yields of the financial assets. If an investment in a real capital asset is now to be undertaken, its prospective cash inflow from using the asset in production must be high enough to warrant financing it at the increased market interest rate (and the higher cash outflow this implies). Both the (capitalized) present value (the price at which the capital good will be demanded) and investment demand decline. This view by Keynes of a process by which capital assets and financial instruments are priced integrates money and banking into the determination of investment. Financed investment (i.e., resource creation) generates demand for consumer goods (via a multiplier) and determines profits from production. Given that money affects production and profits, the behavior of money influences the level, composition, and the relative prices of output. The behavior of money, in turn, depends upon bankers, who are merchants of money-as-finance. Money and finance are *not* neutral.

Uncertainty about both the future income flows from capital-using goods (and, therefore, their demand price) and the fluctuations in financial asset prices (and, therefore, payment-flow commitments on new financing) may result in wide swings in investment demand and resource-utilization levels. The capitalist system of making investment decisions is inherently destabilizing. Unlike orthodox theory, Keynes's explanation of fluctuations is integrated into the price-determination mechanism.

The "prices" of output and of capital assets are related. The price of current output, including investment output, reflects the money wage rate and a mark-up. The demand price for an investment good depends upon its prospective yields as a capital asset and the payment commitments (the terms of debts) required to finance it. The two price levels (that of output and that of assets) are therefore related to each other. Asset prices affect investment and investment affects the effective demand/supply situation for labor. Current output prices adjust to the capitalized value of the yields of capital assets by way of the effect of variations in the demand for labor on money wages.

PART 2. THE TWO FACES OF ECONOMICS: ALLOCATION-EFFICIENCY AND STABILIZATION-EFFICIENCY

Paul Davidson and Sidney Weintraub have emphasized that Keynes was analyzing a "monetary-production" economy (Davidson, 1972; Weintraub, 1960). The phrase "monetary production" is a euphemism; our economy is a capitalist economy with a complex and evolving financial system. As examined above, the basic theorem of Keynes's analysis is that a decentralized capitalist (monetary-production) economy is inherently stability-inefficient, even though a decentralized exchange economy is allocation-efficient. To Keynes, the capitalist mode of organizing production was seriously flawed, but the condition of capitalism was not hopeless. Although perfection cannot be reached, the policy conclusion of Keynes was that it is possible to retain much of the allocation-efficiency of decentralized markets, even as institutional arrangements are put in place that constrain the stability-inefficiency of capitalist economies.

In spite of the instabilities that emerged during the 1970s and 1980s, the overall performance of the capitalist economies in the years since World War II has been superior to that of these economies in earlier epochs (Tobin, 1980). This overall performance has been better because big government has led to significant contra-cyclical deficits that tend to stabilize profits even as private investment declines in a recession. Furthermore, the Federal Reserve now always shifts to an accommodative and interventionist policy whenever instabilities emerge in the financial structure.[1] In spite of

the enormous political, propagandistic, and purportedly scientific arguments for the Federal Reserve to follow money supply (monetary aggregate) rules, the Federal Reserve has always had the good sense to accommodate and refinance markets whenever distress became evident. In my view, in 1975 (the Franklin National episode) and in 1980 (the Hunt-Bache affair), the Federal Reserve may have accommodated too soon and too much. After intervening to abort a threatened debt deflation, the Federal Reserve has not extracted significant reforms of the financial system. Inasmuch as the dominant orthodox economic theory offers no guide to action during times in which the Federal Reserve believes a crisis to be imminent, perhaps the Federal Reserve should not be blamed for not adjusting the financial system to minimize potential instability.

Profit Expectations

The primary emphasis in Keynes is on the economics of resource creation under capitalist conditions, where behavior is motivated by profits. Private organizations undertake resource creation because of income prospects. For business, the prospective income from owned resources are profits. At the center of Keynes's thought is a theory of profit expectations in terms of both the *effect* of profit expectations and the *formation* of profit expectations. In contrast to the fashionable "rational-expectations" school, Keynes held that the process of expectations formation in our economy is potentially destabilizing (Fazzari, 1983).

The current rational-expectations variant of the neoclassical synthesis begins with the fully acceptable assumption that expectations reflect all the information available and processed. This means that the information includes a generally accepted theory of system behavior that can be solved to yield the expected value of the economic game. The heroic step in the neoclassical rational-expectations school is that the theory integrated into expectations formation is the Walrasian allocational view of how the economy works. In particular, endogenous destabilizing interactions are ruled out in the Walrasian-based theory that is incorporated into the analysis of resource allocation by the neoclassical rational-expectations school.

Let us view today's (July 1984) economy from the perspective of a portfolio manager. Recent experience includes being buffeted by high interest rates, inflation, bankruptcies caused by price and interest rate changes and managerial inadequacies, bank failures, and an overhang of nonperforming (i.e., discounted) assets in the financial structure. It also seems to be a period in which the real measures of income and employment show improvement. Not only are portfolio decisions being made with the background of a "disaster barely avoided," but also with a belief that there will be a "need to jump" (to change asset and liability mixes), once the expected resumption of "discord and disarray" takes place. The view is not *whether*, but rather *when*, turbulence will return. The leading question portfolio managers want answered is, "What are the early signs of a resumption of turbulence?" With their recent experience of turbulence, it would be highly irrational for portfolio managers to work with and accept as a basis for behavior a model of the economy in which the instability that was so evident in 1982 cannot happen again. Moreover, it is not rational for economists formulating policy rules for a monetary economy to use a model that "cannot find room for" money (Hahn, 1983). It is also irrational for economists to attempt to explain the behavior of an economy (in which profit flows that validate or do not validate liability structures are central to the behavior of the system) by a model that leads to theorems of the irrelevancy of liability structures.

For our economy, any serious theory of expectations will have to focus on profits. Keynes, being aware of the distinction between resource utilization and resource creation, separated expectations into short- and long-run expectations of profit. *Short-run* profit expectations relate to profits to be earned from using existing resources. They relate, therefore, to the expected level of current and near-term aggregate demand. These profits are like rents. Keynes labeled such demand-determined profits quasi-rents.

Long-term profit expectations affect decisions to use current capabilities to produce resources that will yield profit in the future. Keynes thus distinguished between the profit expectations from using existing plants and the longer-run profit expectations that guide investment decisions. This distinction was central to Keynes's notions of the equilibrium of expectations and the significance of the validation, or lack of validation, of liability structures in changing expectations. The inflow of cash from current production must be sufficient to meet the outflow of cash required by the firm's debt structure, plus a profit. That is, it must validate the liability structure that was erected to finance the capital asset purchases that are now generating current sales income. Firms may be overextended because of their own judgmental errors or a deficiency in aggregate demand. As a result, liquidity positions become inadequate. Or the reverse may occur. Performance with respect to the validation of liability structures leads to changed valuations of liquidity and therefore to changes in the relative prices of assets, financial instruments, and capital goods.

In the Keynesian view, capital assets are valuable (yield a profit), not because they are productive, but because they are scarce. But the scarcity of capital assets is determined by aggregate demand, and aggregate demand is determined by investment and the multiplier. Thus, the adequacy of today's profits is determined by today's investment, which in turn is determined by today's view of future profits.

The signals that today's economy generates (which affect current views of the prospect of future profits) are today's profits, the ability of today's profits to validate today's maturing financial commitments, and the commitments that need to be undertaken today to finance investment (i.e., today's financial market conditions). Thus, the relevant expectations formation in a capitalist economy involves the way *today's* profit (and debt-validation performance) affects today's view of *future* profit (and debt-validation performance) and how this view of the future affects today's in-

vestments and debt-creation behavior. Once the profit and debt-validation process is set up this way (i.e., once nominal values, such as debt payment commitments, are integrated into the investment-formation process), it is clear that market reactions to, say, excess supply of labor can be, nay often are, destabilizing. Furthermore, the extent of destabilizing reactions will depend upon the properties of the economy's liability structures. It is not rational to assume that the properties stabilizing the economy are independent of its liability structures.

Furthermore, whereas *small-government* noninterventionist capitalism may allocate resources more efficiently than *large-government* interventionist capitalism, the ability of *large-government* interventionist capitalism to stabilize profits and refinance debt structures makes big-government interventionist capitalism more stability-efficient than small-government noninterventionist capitalism. However, because big-government capitalism with an active interventionist central bank constrains downside instability, the presumed knowledge about the stability of system behavior (which determines profit expectations and acceptable liability structures) leads to an increase in debt financing. Thus, both upward instability and potentially troublesome highly levered liability structures result from the successful containment of downside instability. In a capitalist environment, stability is destabilizing.

PART 3. THE SOCIALIZATION OF INVESTMENT

The contrast between the allocation-efficiency of decentralized markets in determining resource utilization and the stability-inefficiency of decentralized markets and capitalist financial practices in determining resource creation stands out in the "Concluding Notes" of *The General Theory* (chapter 24). On the one hand, Keynes argued that

> a somewhat comprehensive socialisation of investment will prove the only means of securing an approximation to full employment; though this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative. . . . If the State is able to determine the aggregate amount of resources devoted to augmenting the instruments and the basic rate of reward to those who own them, it will have accomplished all that is necessary. (1936, p. 378)

On the other hand, he held that once

> central controls succeed in establishing an aggregate volume of output corresponding to full employment as nearly as is practicable . . . there is no objection to be raised against the classical analysis of the manner in which private self-interest will determine what in particular is produced, in what proportions the factors of production will be combined to produce it, and how the value of the final product will be distributed between them. (pp. 378–79)

The early 1930s, when *The General Theory* was written, was a period of unprecedented turmoil in capitalist economies. The Great Depression brought the very continuation of both capitalism and democracy into question. Hitler showed that there was a totalitarian potential in capitalism, while Stalin demonstrated that there was a totalitarian potential in socialism. For democracy to survive, the economies of democratic countries had to achieve greater stability and equity. Keynes's diagnosis of the strengths and weaknesses of market processes was paralleled by the development of market socialism in the hands of Lange (1938) and Lerner (1934).

Lange, replying to the critique of planning by Von Mises and Hayeck, among others, argued that the instructions to the operator of production units need be no more than to maximize profits, given the prices of outputs and purchased inputs. The "planning" agency sets price and achieves allocation-efficiency by confronting, in effect, each firm with an infinitely elastic demand curve. Prices are adjusted according to whether excess demand or supply of outputs or allocatable inputs exists. The exposition by Lange of the operations of the market mechanism under market socialism is a masterful statement of the equilibrating behavior of interrelated markets.

Market socialism makes output a reacting adjustment to price signals by producers and consumers. Market-socialism resource creation, however, is not left to the market. The extent to which resources are to be used to create resources is to be decided by a political planning process. The particular direction of investment is to be determined by a combination of planning and reactions to the profitability of existing capital assets. The key to an understanding of market socialism is that the power of markets to coordinate the way existing resources are used is acknowledged, even as the flaw of instability in the capitalist techniques of determining resource creation is recognized.

The organization of a modern conglomerate corporation conforms to the distinction between resource utilization and resource creation that was drawn by Keynes and is basic to Lange-Lerner market socialism. In a modern corporation, there are "profit centers" that are constructed around capital assets or product lines. These profit centers are under instructions to maximize profits with the resources that are allocated to them by "authority." These operating units have restricted powers to finance externally. In addition to the operating units, a modern corporation will have a financial or an executive "authority" that is responsible for the acquisition of resources and the financing of the organization. This authority not only decides which investment projects will be undertaken by the various operating units, but it also controls the internal funds (retained earnings plus depreciation allowances) and the liability structure of the corporation. This authority has responsibilities that are analagous to those Lange and Lerner assigned to the planning boards of their socialist economy.

Thus, the line that Keynes drew between what the market can do adequately (determine how resources are to be used) and what leads to the instability-inefficiency of capitalist economies (the resource-creation processes) is "parallel" to both the distinction made by the modern multidimensional corporation between the use of existing resources and the creation of new resources and the differences between the market-determined and the planned facets of an idealized socialist society. Keynes's distinction, furthermore, corresponds to the differences drawn earlier between the two

"types" of economic analysis, for whereas markets tend to lead to an efficient allocation of given resources, the market determination of investment (resource creation) under capitalist conditions (in which markets deal not only in commodities or factors, but also in finance) tends to lead to an economy that is stability-inefficient.

CONCLUSIONS

The policy and programmatic conclusions of *The General Theory* rest upon an implicit distinction between the economics of resource utilization and the economics of resource creation. The instability-inefficiency of a capitalist economy was imputed to the interaction between the financing techniques that force resource creation and the need for adequate capital incomes to validate debts. The solution that Keynes envisaged was to socialize part of investment. Socialized investment breaks the financial link between investment today and the aggregate ability of today's profits to satisfy inherited liability structures.

But socialized investment implies that government spending is mainly concerned with resource creation. Under the influence of Beveridge (1945), and perhaps Hansen (1951), a conservative alternative to socialized investment developed in the form of transfer payments and the provision of services. For example, the government of the United States is big, not because investment has been socialized, but because government subsidizes consumption. As a result of this change in direction of policy, the deficits that big governments run in recessions are able to prevent a debt deflation and deep depression. These deficits, however, are not the result of employment in resource creation.

We have now reached a "dead end" to the welfare-transfer-payment state. Various cries for reindustrialization and industrial policy are poorly articulated realizations of the flaw in the capitalist techniques for creating resources. The flaw is especially serious if innovative ventures are so expensive that the unit undertaking these ventures must be very large. Even so, it may be obliged to "bet the company" on the success of the venture. Experience with commercial planes and nuclear power indicates that a minimum risk absorption by government may be necessary if ventures of such size, expense, and complexity are to be undertaken. Instability, bred of liability structures that cannot be supported by profits, taxes, or foreign-exchange earnings, is leading to a need either to transfer such high-risk bank "assets" (business or foreign liabilities) out of the balance sheets of banks and onto government agencies or to envisage a near future with a greatly impaired ability and willingness of banks to finance resource creation. Circumstances, rather than ideology, are leading to an ex-post socialization of asset ownership.

If we are to have ex-post bailouts and the socialization of risks, should we not also have ex-ante programs that explicitly define the rules for creating resources that are not expected to meet the narrow profit calculus that determines private investment decisions and for determining how to refinance organizations that cannot meet payment commitments? The socialization of investment that Keynes suggested offers an alternative both to the present threat of stagnation and instability and to the inefficiencies inherent in an economy with transfer payments large enough to be an effective barrier against the collapse of profits that leads to deep depressions.

Keynes is of little import in today's dominant theory and policy. This only underscores the banality of theory and helps to explain the inadequacy of policy. As the inability of today's theory to foster an understanding of the instability so evident in our economy becomes evident, a reconstruction of theory will need to occur. Furthermore, if it becomes evident that present policy is unable to cope with instability, a serious review of policy will need to occur. At such time (and I venture to say the time is soon) Keynes's theory will become of *increased* import, not as a set of inherited doctrines, but as a source of discipline and policy analysis needed for guiding future progress.

NOTE

1. Friedman and Schwartz make the point that failure of the Federal Reserve to intervene to support "failing banks" was a critical part of the evolving Great Depression.

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