This material may be protected by copyright law. (Title 17 U.S. Code)
Thank you, W.M.

This article it was unreadable.

Please resend this.
THE LEGACY OF KEYNES (*)

Hyman P. Minsky
Washington University

INTRODUCTION

The 100th anniversary of the birth of an important figure in our civilization's intellectual history is usually the occasion to emphasize, nay to exaggerate, the continuing importance of the contribution of the «celebrant» to current thought and practice. Keynes' 100th anniversary comes at an inopportune time for such an exercise in glorification. The mainstream of current economic policy and the current understanding of economics by the public, the policy establishment and the dominant economists (as measured by position and honors) owe little to Keynes.

There are alternative interpretations of Keynes. These run from the still important Keynes-Walras integration, i.e. the neo-classical synthesis, which was promulgated by what Joan Robinson succinctly called bastard Keynesians, to the largely neglected legitimate offspring which put Keynes into a classical tradition that includes Ricardo, Marx, Sraffa and Kalecki. Neither the bastard nor the legitimate interpretation have a major impact on today's dominant teaching, research programs and policy applications of economics. The Keynesian economics of the 1950's and 1960's is now viewed as a largely irrelevant detour from the main line of economics that concentrates on analysing the behaviour of commodity and factor markets. Today's economics is chronologically post-Keynes but intellectually pre-Keynes.

If we had addressed the question of the legacy of Keynes during his 80th (1963) or even his 90th (1973) birth year the accepted view would have

been that Keynes left a large bequest. At those dates the legacy of Keynes would have been interpreted as consisting of the theory and practice of demand management and demand management, by means of fiscal policy as the «leader» and monetary policy as an «accommodator», would have been judged a success. Keynes' aim of «achieving a closer approximation to full employment than hitherto» was being achieved and as a bonus this approximation to full employment was being realized with reasonable price stability. However the analytical bequest, by ignoring financing relations, would have been in the form of an algebraic reduction that trivialized Keynes. To a large extent today's relatively low status of Keynes can be imputed to these formulations that paraded as Keynesian economics two decades ago—a trivialization that did not place money (and banks) in a financing relation with firms that own capital assets and invest. As a result Keynes was not presented as a theory of why our type of economy is so given to fluctuations which, according to Keynes' rebuttal to Viner (1), was the main «Theorem» to which the analysis of The General Theory pointed (2).

The policy success in the 1950's and '60's of interventions whose rationalization was imputed to Keynes was not even then accompanied by an equivalent success of Keynes' thought as economic theory. By the 1960's—say thirty years after the appearance of The General Theory—the theory of Keynes had been reduced to a mechanical and arithmetic view of the economic process. This was especially evident in the way «money» virtually was ignored in the various multi-equation econometric models that were then the cutting edge of reserach. The status of Keynes as an economic theorist in the mid 1960s was summarized by Patinkin:

The propositions of the quantity theory of money hold under conditions much less restrictive than those usually considered necessary by its advocated and, a fortiori, its critics. Conversely, the propositions of Keynesian monetary theory are much less general than The General Theory... and later expositions would lead us to to believe. But this in no way diminished the relevance of Keynesian unemployment theory for the formulation of a practicable full employment policy (3).

---

Patinkin Keynes was a source of practical insights but not a serious theorist.

The great success story of economics in the years since the 1930's is the mathematical economists, who made precise the conditions under which decentralized multistart systems can lead to equilibrium. This contributed to the depreciation of the legacy of Keynes, for Keynes view of economics, as a process through time with endogenous stabilizing and disequilibrating "forces" that may, but need not, take a form of evolving institutional relations that affect system behavior, is not amenable to analysis by the limited mathematics of economists (4). Keynes was not a theorist who abstracted from reality so that he could see the analysis into the framework provided by known mathematics. Hahn puts it that "... Keynes had no grasp of formal economic theorizing (and also disliked it)", even though Hahn goes on to note at "Keynes' insights were several orders more profound than those of his recent critics". In Money and Inflation Hahn nowhere states precisely what those insights were and how they were "more profound" than the insights "of his recent critics".

To acknowledge that Keynes is not of great importance in today's dominant research, teaching, policy analysis, and practice is not to accept the present situation as good. Economic research, teaching and policy could all be better, in the sense of relevance and effectiveness, if Keynes' insights were of greater importance, but any immediate greater importance f Keynes would need be in terms of an agenda for research and policy analysis rather than in specific doctrines or policy rules. This is so because the serious research program on financial interactions towards which The General Theory pointed was never carried out. The mainstream interpretation of Keynes, which became dominant soon after The General Theory appeared, neglected the deep analysis of finance and how financial

---

4) As a result of the ability to simulate non-linear time dependent systems it is now known that such systems will almost always transform an initially coherent process into one that approaches chaos. Thus today's mathematics seem to vindicate Keynes, especially as the endogenous degeneration to chaos can be contained by interventions and rigidities that can be interpreted as imposing "new initial conditions". See Day R.L.: "Irregular Growth Cycles", American Economic Review, June 1982, pp. 406-415 and Minsky H.P.: "Monetary Systems and Accelerator Models", American Economic Review, 47 (December 1957), pp. 859-83 and "Linear Models of Cycles and Growth", Review of Economics and Statistics.

5) Hahn F.: Money and Inflation, The MIT Press, 1983, pp. XXI. By formal economic theorizing I take it Hahn means the forcing of thought into mathematical forms that are amenable to the proving of theorems, even if this forcing involves violating or ignoring processes and relations that are very much part of the "beast" that economists presumably study.
interrelations affect system behavior that is central to The General Theory (\(^5\)). From the perspective of Book IV (The Inducement to Invest) of The General Theory both the dichotomized monetarist and the orthodox IS-LM ways of treating money and finance are on the wrong track (\(^7\)). Keynes would be a minor figure, known for a critique of the Treaty of Versailles, for being a friend and supporter of the Bloomsbury writers and artists, and for being a negotiator of arrangements during and after World War II were it not for his The General Theory of Employment, Interest and Money which was published in 1936. This polemic against orthodox economics that masqueraded as positive theory is best viewed as the introduction and outline of a research program into the accumulation process under modern capitalist conditions rather than as a definitive finished piece of economic analysis. The thrust of what follows is to examine several facets of the economics of The General Theory, to indicate how these views stand in contrast to current views and to show how Keynes' insights lead to an economic theory that points towards a deeper understanding of our economy than the existing theory can provide.

ACCUMULATION AND MONEY

To Keynes the accumulation process under capitalists conditions revolved around the pricing of capital assets, 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. The standard interpretations of Keynes ignore the special monetary-financing problems of capitalism that were of central importance to Keynes. The "pervasive" underemployment equilibrium that Keynes discussed is best understood as a conditional perversity that rules when the interactions set off by excess supply of labor or resources take place in a financial environment characterized by payment commitments that are large relevant to income flows. It is these

\(^{5}\) Hicks J.R.: "Mr. Keynes and the "Classics": A Suggested Interpretation", Economica, 5 (1937), pp. 147-59 became the basis for the standard interpretation of Keynes, an interpretation that still dominates teaching about what Keynes is about.

largely unexplored, facets of Keynes' thought that leads to the proposition that Keynes' importance to theory lies in the future whereas at present Keynes provides an agenda for research.

Upon publication *The General Theory* was interpreted as yielding powerful insights into The Great Depression and as a guide to policy containing, if not preventing, such disasters. Rather than serve as a basis for a research program that integrates money, finance and income, *The General Theory* led to model building that explained the national income accounts even as finance and financial relations were pushed into the background. Now that experience shows that the impact of traumatic disturbances in financial markets cannot be ignored in explaining system behavior, any serious research program in economics no longer treat «money» as exogenous. Economists can no longer ignore the precise transactions that lead to the creation of money including obligations undertaken as money is created. The treatment of money and the relation between money and prices is critical to Keynes' thought, and its is in its treatment of money that today's economics owes little or nothing to Keynes (9).

In orthodox theory money is a veil that obscures what goes on in a world that really is engaged in barter: money does not affect what really takes place. For example money is introduced into an exposition by Arrow and Hahn with the statement «Let the subscript "m" stand for money that we now regard as the non-interest-paying debt of some agency outside our formal system» (9). As a result of defining money as above:

«The most serious challenge that the existence of money poses to the theorist is this: the best developed model of the economy cannot find room for it. The best developed model is, of course, the Arrow-Debreu version of a Walrasian general equilibrium. A world in which all conceivable contingent future contracts are possible neither needs nor wants intrinsically worthless money. A first,

---

(9) The success of *The General Theory* in its Hicksian form unfortunately brought line of research that was close to the spirit of Keynes to a halt. See *The Internal Debts of the United States* edited by Evan Clark assisted by George B. Galloway, Twentieth Century Fund the MacMillan Company, New York 1933, and *Debts and Recovery 1925-37*, The Twentieth Century Fund, New York 1938. The title page credits the factual findings to Albert Gallard Hart and the program to the Committee on Debt Adjustment. To my mind these studies were much more in the spirit of Keynes' *General Theory* than the research that centered around explaining the National Income accounts.

and to a fastidious theorist difficult, task is to find an alternative construction without thereby sacrificing the clarity and logical coherence that are such outstanding features of Arrow-Debreu." (10)

The implication of Hahn's statement is that all of the theorizing that dichotomizes, by first assuming that "barter-equivalent" market processes lead to outputs, relative prices and intertemporal transactions and then proceeds to add "money" as a determinant of absolute prices and as a devise for shocking the system out of an equilibrium, is logically illegitimate. It has now been shown that money that is defined, as in Arrow and Hahn, as being "intrinsically worthless" and whose only task is either to make a double coincidence of wants unnecessary for trading to occur or to be a vehicle for intergenerational transfers will "disappear from the system" in the sense that prices in terms of such money will approach infinity. (11)

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

"There is a multitude of real assets in the world which constitute our capital wealth—buildings, stocks of commodities, in the 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 imposes its guarantee between its depositors who lend it money and its borrowing customers to whom it loans money with which to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is a specifically market characteristic of the modern world." (12)

This Keynes view takes the institutional reality of a banking system that both borrows and lends seriously. The lending by banks finances holdings of assets and activity and "creates" money and money like assets. If balance sheets of businesses and banks are consolidated then the end result is a balance sheet with real assets, both durable plant and equipment and

(11) Ibid., Ch. I and II.
goods in the process of production, on one side and equities, bonds and money like liabilities on the other side. Money is like a bond in that it finances positions in assets and there are payment commitments, due to the debts exchange for money, that would be evident in unconsolidated balance sheets but which disappear with consolidation.

This linkage of money and the financing of the ownership of wealth and of activity leads to the Keynes 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) and the disutility from carrying costs (storage, financing charges) and «wear and tear» (user costs) of the asset. Keynes used \( y \) for the assets income, \( l \) for its liquidity and \( c \) for its carrying costs. The price of any asset reflects the utility derived from the sum \( y + l + c \) 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 income, \( y \), and has no carrying costs, \( c \); its only return is its liquidity, \( l \). This liquidity return is of course subjective. It depends upon the time sequence of payment commitments, the felt assurance of income receipts 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 one dollar. The greater the number of dollars the lower the utility of liquidity and thus of a dollar and the higher the dollar price of assets which yield money income.

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 of the production economy, but also the financial instruments that are used to finance ownership of assets. New financial instruments must be assimilated to the existing stock of financial instruments. Whereas the expected yield from real assets is determined by the specifics of markets and management, the yield promised by a financial instrument is the same for all instruments with any given margin of safety that allows for the prospects of the underlying assets. Thus «financing» real assets ownership and investment by debts involves judging prospects for the unique returns from real assets relative to the market determined terms on financial instruments.

As Keynes emphasized both real assets and financial instruments yield annuities. The mixed game of luck and skill that is business involves selecting (betting on) combinations of specific income yielding assets and
liabilities with market determined payment commitments. This means that the cash payment commitments for financing investments are determined by the price system of assets. With the carrying costs for capital assets determined, the minimum yields that investment project must be expected to generate are given.

Note that if the subjective value of liquidity increases then the dollar price of financial assets that yield income combined with some liquidity (but less than that of a dollar) will fall. Such a fall in the price of financial instruments will raise the minimum expected cash flow per dollar of owner assets that is needed for an investment or capital asset acquisition project to be successful. This Keynes view of an integrated process by which capital assets and financial instruments are priced integrates money and banking into the determination of investment. As financed investment yields demand for and profits in consumer goods production, the level composition and the relative prices of output depend upon the behavior of money. This in turn depends upon bankers, who are merchants of money as finance.

This view of money stands in sharp contrast to today's monetarist view, which has money determining the price level of current output and changes in the quantity of money determining changes in money income without specifying the connections. In the near term this change in money income is divided into changes in output and in prices, but in the longer terms this change in money leads only to changes in prices. In terms of processes this monetarist view is a handwave.

The price level of current output in Keynes' view reflects the money wage rate, which is a legacy of the past excess supplies and demands in various job markets, and the mark, up which reflects the portion of demand that is derived from investment goods output, together with the banker's need for protection by a gap between expected revenues and the total costs of producing outputs by units that banks finance (including importantly the output of investment goods).

The «prices» of output and of capital assets are related, because the price of capital assets, as a capitalization of the \( y, c, \) and \( l \) yields of assets leads to a demand price for investment output. The two price levels on a capitalist economy—that of output and that of assets—are related by way of the effect of the ratio of asset to output prices on investment and the effect of investment on the effective demand/effect supply situation for labor. Output prices adjust to the capitalized value of the yields of assets by way of the effect of high or low level demand for labor on money wages.
THE TWO FACES OF ECONOMIES: ALLOCATIONAL AND STABILIZATION EFFICIENCY

Jean and Peter Gray have recently drawn the insightful distinction between the allocative efficiency and stabilization efficiency of an economic system. Once this distinction is made, the possibility needs to be investigated that economic programs, institutional innovations and the evolution of usages and structures that say tend to improve allocational efficiency may lead to a deterioration of stabilization efficiency. But for stabilization efficiency to be a criterion for evaluating economic structures and institutions the economic theory used to evaluate the economy must be capable of engendering instability. In the General Theory Keynes outlined a theory of why our economy is « so given to fluctuations » and why these fluctuations are eventually contained. An apt way of interpreting The General Theory, in the light of the insight of the Grays, is that it provides the ingredients for the analysis of the endogenous potential for instability of an economic order and whether an economic order would dampen or amplify outside shocks that could trigger instability.

The Gray and Gray insight with respect to the distinction between allocational and stability efficiency of economic institutions is but one of the distinctions that can be drawn between orthodox economic theory and the strain of economic analysis represented by Keynes. The study of the characteristics that make an economy « allocational efficient » is naturally concerned with resource utilization. But an economy creates tomorrow each day by creating resources. The Keynes integration of money with asset prices and asset prices with investment is obviously an economic theory that focuses on resource creation. In orthodox theory money and finance are introduced after the analysis has shown that exchange in an institutionally abstract system leads to coherent results. In Keynes' type of analysis institutions, especially the financing institutions, are well defined and the analysis really begins with the determination of the price system of assets. Finally it is evident that orthodox theory is concerned primarily with exchange and is static whereas Keynes' theory deals first with production—profit seeking producers demand labor—and examines the behavior of an investing system in historical time.

Paul Davidson and Sidney Weintraub have emphasized that Keynes

was analysing a «monetary-production» economy (14,15). In truth the phrase «monetary production» is a substitute for calling our economy what it is—it is a capitalist economy with a complex and evolving financial system. The basic theorem of Keynes' analysis follows from the specification of what is being examined. This theorem is that a decentralized capitalist (monetary-production) economy is inherently stability inefficient even though a decentralized exchange economy is allocatively efficient. To Keynes the capitalist mode of organizing production is seriously flawed, but the condition of capitalism is not hopeless. While perfection cannot be reached, the policy conclusion of Keynes is that it is possible to retain much of the allocational efficiency of decentralized markets even as institutional arrangements are put in place that constraint the stability inefficiency of capitalist economies.

In spite of the emerging instabilities during the 1970s the overall performance of the capitalist economies in the years since World War II has been superior to the overall performance of these economies in earlier epochs (16). This overall performance is better because big government has led to significant contra-cyclical deficits, which tends to stabilize profits even as private investment declines in recession. Furthermore the Federal Reserve has always shifted to an accommodative and interventionist policy whenever instabilities emerged in the financial structure. 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 refine markets whenever distress becomes evident. (In my view in 1975 (the Franklin National episode) and 1980 (the Hunt-Bache affair) the Federal Reserve may have accommodated too soon and too much. The Federal Reserve did not even extract significant reforms after intervening to abort a threatened debt deflation in those years. However the Federal Reserve should not be blamed because the dominant economic theory offers no guide to action during times in which the Federal Reserve believes a crisis to be imminent.)

PROFIT EXPECTATIONS

The primary emphasis in Keynes is on the economics of resource creation under capitalist conditions. Capitalist conditions mean that behavior is motivated by profits and private organizations undertake resource creation because of income prospects. For business the prospective income from owned resources are profits. At the center of Keynes' thought is a theory of profit expectations in terms both of the effect of profit expectation and the formation of profit expectations. In contrast to the fashionable «rational expectations» school Keynes held that the process of expectation formation in our economy is potentially destabilizing(17).

The current rational expectations variant of the neo-classical synthesis begins with the fully acceptable assumption that expectations reflect all the information available and processed. This correctly is taken to mean that the information includes a theory of system behavior. The heroic step in the neoclassical rational expectations school is that the theory that is integrated into expectation formation is the Walrasian allocational view of how the economy works. In particular endogenous destabilizing interactions are ruled out from the theory that is incorporated in the study of resource allocation.

Let us view today's (April, 1983's) economy from the perspective of a «portfolio manager». Recent experience includes being buffeted by high interest rates, seemingly open ended accelerating inflation, bankruptcies due to price changes and managerial inadequacies, bank failures and an overhang of nonperforming (i.e., discounted) assets in the financial structure. It also seems as if we currently are entering a period of comparative tranquility in which the real measures of income and employment will show improvement. Not only are portfolio decisions being made with the background of a «disaster barely avoided» but with a belief that there will be a «need to jump», to change assets and liability mixes, once the fully expected resumption of «discord and disarray» takes place. The view is not whether but rather when will turbulence return and the leading question portfolio managers want answered is what are 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. It is not rational

for economists to use a model which «cannot find room for» money to formulate policy rules for a monetary economy. 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 which leads to theorems of the irrelevancy of liability structures.

Any serious theory of expectations for our economy 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 therefore relate to the expected level of current and near term aggregate demand. These profits are like rents; hence 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 distinguishes between the profit expectations from using existing plant and the longer run profit expectations that guide investment decisions; this distinction is central to Keynes' notions of the equilibrium of expectations and the significance of the validation, or lack of validation, of liability structures in changing expectations. 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.

Keynes' view of profit expectations is related to what is now considered the Kalecki view of profit formation. In the Keynes-Kalecki 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 views of future profits.

The signals that today's economy generates which affect current views of the prospects of future profits are today's profits, the ability of today's profits to validate today's maturing financial commitments, and the commitments which need to be undertaken today to finance investment — i.e., today's financial market conditions. Thus the relevant expectation formation in a capitalist economy involves the way today's profit and debt validation performance of the economy affects today's views of the future profit and debt validation performance and how these views of the future affect today's investments and debt creation behavior. Once the profit
nd debt validation process is set up this way, 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 or be, may are often, destabilizing. Furthermore the extent of destabilizing reactions will depend upon the properties of liability structures. It is not rational to assume that the stability properties of the economy are independent of liability structures. Furthermore, whereas a small government non-interventionist capitalism may be allocationally more efficient than a large government interventionist capitalism, the ability of a large government and interventionist capitalism to stabilize profits and refinance debt structures makes big government capitalism more stability efficient than small government capitalism. However, because big government capitalism with an active interventionist central bank constraints 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 liability structures will result from the successful containment of downside instability. Stability, in a capitalist environment, is itself destabilizing.

THE SOCIALIZATION OF INVESTMENT

The contrast between the allocational efficiency of decentralized markets in determining resource utilization and the stability inefficiency of decentralized markets and capitalists financial practices in determining resource creation stands out in Chapter 24, Concluding Notes of The General Theory. On the one hand Keynes argued that «a somewhat comprehensive socialization of investment will provide 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 reward of those who own them, it will have accomplished all that is necessary» (18). 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 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» (19).

The early 1930's, 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 in question. Hitler showed that there was a totalitarian potential in Capitalism even as Stalin showed that there was a totalitarian potential in Socialism. For democracy to survive the economy of democratic countries had to achieve greater stability and equity than hitherto. Keynes’ diagnosis of the strengths and weaknesses of market processes was paralleled by the development of market socialism in the hands of Lange and Lerner (20,21).

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

However whereas markets make planning a reacting adjuster of price signals to producers and consumers, in market socialism resource creation is not left to the market. The extent to which resources are to be used to create resource 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 instability flaw of the capitalist technique 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 «finance» or an executive «authority» that is responsible for the acquisition of resources and how the organization is to be financed. This authority not only decides which serious 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. This authority has responsibilities that are analogous to those that Lange and Lerner assigned to the «planning» boards of their socialist economy.

Thus the line that Keynes drew between what the market can do perfectly 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 way the modern multidimensional corporation distinguishes between the use of what is and the creation of new resources and the distinction between the market determined and the planned facets of a socialist society. This distinction furthermore corresponds to the distinction drawn earlier to the two «types» of economic theories, 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 a system that is stability inefficient.

CONCLUSIONS

The policy and programatic conclusions of *The General Theory* rest upon a 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 which force «resource creation» and the need for adequate capital incomes to validate debts. The solution that Keynes envisaged was to socialize part of investment, for 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 (21)—and perhaps Hansen (22)—a conservative alternative to socializing investment developed in the form of transfer payments and the provision of services. The government of the United States is big not because investment has been socialized but because government subsidizes consumption. As a result of this task that policy took, the deficits that big government runs in recessions are able to prevent a debt deflation and a deep depression, but these deficits 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 great if innovative ventures are so expensive that the unit undertaking these ventures must be very large and, even so, it «bets the company» on the success of the venture. Experience with commercial planes and nuclear power indicates that as a minimum risk absorption by government will 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 to either transfer the bank assets that are such 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, is leading to an «ex-post» socialization of asset ownership.

But if we are to have «ex-post» bailouts and socializations of risks should we not also have «ex-ante» programs which explicitly define the rules for both the creation of resources that are not expected to meet the narrow profit calculus that determines private investment decisions and how the refinancing of organizations that cannot meet payment commitments takes place? The socialization of investment that Keynes suggested offers an alternative to both the threat of stagnation and instability that now rules and to the inefficiencies inherent in an economy where

---

transfer payments are large enough so as 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, but this only underscores the banality of theory and helps 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. As the inability of policy to cope with instability becomes evident, a serious review of policy will need to occur. At such time—and I venture say the time is soon—Keynes will become of increased import, not as a set of inherited doctrines but as providing the shoulders of a giant on which the discipline and policy analysis can stand.