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Chapter VII of "Financial Instability and the Current Economic Policy" -- The Current Standard Theory: The After-Keynes Synthesis

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> Postal card of John Maynard Keynes to George Bernard Shaw. (Cited in Harrod, p.)

A. Introduction

The fundamental neo-classical perspective is as stated by Milton Friedman:

> Despite the importance of enterprises and money in our actual economy, and despite the numerous and complex problems they raise, the central characteristic of the market technique of achieving co-ordination is fully displayed in the simple exchange economy that contains neither enterprises nor money.[1]

In this view, "money has been introduced as a means of facilitating exchange, and of enabling the acts of purchase and sale to be separate into two parts."[2] The models that economic theorists constructed ~~as they endeavor~~ to demonstrate that it is possible, albeit under restrictive circumstances, for markets without overt control to achieve a coherent result do not contain internal processes that can disrupt the coherence. ~~In particular~~ the incoherence that an economy exhibits during the downward spiral of a debt deflation is foreign to ~~the theory of the~~ neo-classical economists.

New theory can ~~have one of two~~ be inspirations. ~~One is~~ the internal workings of a discipline in which the unsatisfactory nature of a dominant theory becomes evident as it is subjected to logical scrutiny and empirical testing. ~~The second is~~ or the appearance in nature, perhaps due to the development of new devices to facilitate observations, of events that cannot be explained

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[1] Milton Friedman, Capitalism and Freedom (Chicago: University of Chicago Press, 1962), p.14

[2] Ibid. "Introduced" refers to the theory rather than to the world.

Chapter VII

The Current Standard Theory: The After-Keynes Synthesis

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New theory can be inspired either by the internal workings of a discipline in which the unsatisfactory nature of a dominant theory becomes evident as it is subjected to logical scrutiny and empirical testing or the appearance in nature, perhaps due to the development of new devices to facilitate observations,

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of events that cannot be explained by old theory. In economics such anomalies, from the perspective of an existing dominant theory, will occur as history unfolds. New theories in economics are a response to striking events in history which cannot be explained within existing theory.

In the 1930's an evident anomaly, from the point of view of standard theory, occurred in the Great Depression. The inherited economic theory could not explain what happened. From the perspective of neoclassical theory a large shock would be necessary to cause a large decline and no proximate large shock, except for the stock market collapse, had occurred.[1] Furthermore, standard economic theory offered no explanation of the stock market crash and of the subsequent debt deflation. Even though business cycles, financial crises, and deep depressions occurred through the 19th and early 20th century the neoclassical theory sketched in Chapter VI, could not explain these events.

Not being able to explain what happened is bad, but a more serious matter for a discipline that claims to be practical is to be unable to put forth a program to ease a trying situation. In the early 1930's all standard economists could do was to note that similar depressions had occurred in the past and that the incoherence had passed. Thus it was held that in time the current crisis will pass away. Even as it was evident to almost all that things were getting worse, President Hoover insisted that "Prosperity was just around the corner". In the midst of protracted and rapid decline in prices, the Federal Revenue System undertook deflationary actions to protect the gold reserves: inflation was fought in the midst of deflation.

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[1]Temin, Friedman and Schwartz's A Monetary History of the United States is a brief for the proposition that a set of large shocks did occur.

The great decline of the American economy from 1929 through 1933 involved both an explosion of unemployment and a sequence of crises in financial markets. A steady rain of failures, of banks, other financial institutions and corporations, was punctuated by intervals in which a torrent of failures occurred. It became evident to economists that a better understanding of why our type of economy was so given to fluctuations was needed. Business cycle research was a major activity and a variety of approaches to business cycles appeared. A "race" was on for new theory. The race was won by Keynes.

In August 1931 Keynes stated a view of how money enters into and affects our economic life that is in striking contrast to neoclassical views as exemplified in the quotation from Friedman. Keynes wrote:

> There is a multitude of real assets in the world which constitute our capital wealth--buildings, stocks of commodities, goods 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 interposes its guarantee between 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.[1]

In this view, money is created in the process of direct or indirect financing of investment and of positions in capital-assets. An increase in the quantity of money first finances either an increase in the demand for investment output or an increase in the demand for items in the stock of capital-assets. As

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[1]J. M. Keynes, Essays in Persuasion, Collected Writings of John Maynard Keynes (London and Basingstoke: Macmillan & Co., St. Martin's Press, for the Royal Economic Society, 1972), 9:151. Essay titled "The Consequences to the Banks of the Collapse in Money Values".

money is created borrowers enter upon commitments to repay funds to the lending bank. In its origins in the banking process, money is part of a network of cash flow commitments, a network that for the capital-asset side of the economy ultimately rests upon the profits that firms earn as capital-assets are used in production. In an economy in which government is small, which was true in 1931 when Keynes wrote the above, the money supply increases when bankers and their business customers are willing to increase current indebtedness because they believe that future revenues will finance repayments.

Symmetrically the money supply is decreased as bank loans are reduced. This occurs when bankers and the (potential) borrowing businesses believe that future profits would not validate the commitments embodied in the debt. Banks fail because the cash they are supposed to receive from assets are not forthcoming or because the assets or liabilities they offer to sell do not yield the anticipated cash. Bankers expectations about the ability of business to validate debt reflect their experience with existing loans. Successful fulfillment by business of commitments to banks increases the money supply because it encourages debt financing, and the failure of business to fulfill commitments decreases the money supply because it leads to a reluctance to debt finance. The money supply is very much determined within the economy and changes in the money supply reflect the profit anticipations of business.

In this Keynes[1] view money is related to the way in which ownership and control over capital assets are financed; money therefore is part of the mechanism by which today's views about the future affects current behavior. When the money supply is increased both bankers and their borrowing customers have favorable views about the future. Symmetrically unfavorable views about the future make bankers and their borrowing customers contract their loans and thus the

money supply. A shift from favorable to unfavorable views about the future takes place in response to phenomena that are internal to the operations of the economy, such as sharply rising interest rates, decreased profit margins, rising labor costs, price and cost inflation, and, most importantly, the emergence of debtors who find it difficult to fulfill their commitments.

Bankers and their borrowing customers remember the past and recognize that the future can be unlike the past and the present. They cannot be "automata" that treat present prices and cash flows as if they always existed and will rule forever. Both bankers and their borrowers are aware of time and therefore they recognize that their current decisions are made in the face of the uncertainty that cannot be separated from history. Calendar time and commitments denominated in bank liabilities (i.e., in money) are of vital importance in an economy with banking and in which debt financing of positions in capital assets takes place.

As the Great Depression worked its malevolent will upon the world economy, it became evident that a theory aiming to explain the behavior of the in fact economy would need to integrate monetary and financial variables into the explanation of why coherence does or does not rule. The split between what is taught in pure theory and what is taught in money and banking that Paul Samuelson recalls from his days as a student at the University of Chicago became untenable.[1]

The new theory that Keynes announced in his postal card to George Bernard Shaw was a theory of the performance of a capitalist economy that integrates

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[1] P. A. Samuelson: "What Classical and Neo-Classical Monetary Theory Really Was", Canadian Journal of Economics, Vol. No. 1, pp. 1-15. In Clower, ed., Monetary Theory.

the operations of what we characterized as a "Village Fair" with the activities of "Wall Street". One of the peculiarities of the neoclassical theory that preceded Keynes and the neoclassical synthesis that succeeded Keynes is that neither allows the activities that take place in Wall Street to have any significant impact upon the "coordination" or "lack of coordination" of the economy. Keynes redefined the problem that theory was to explain: economic theory had to explain why our economy is so given to fluctuations.

Keynes' explanation of the performance of a capitalist economy emphasized investment, how investment is financed, and the effects of financial commitments. The core of Keynes' analysis integrates the profitability of existing capital-assets, the financing conditions for investing and holding capital-assets, and the supply conditions of investment output into a theory of effective investment demand. Underlying this theory of effective investment demand is the view that because investment involves calendar time, the investment decision is made under conditions of uncertainty.

We know the existence of risk makes insurance a profitable enterprise. However the "business cycle" and the financial difficulties that occur during business cycles do not conform to the conditions that make insurance, such as life or accident insurance, feasible. There is no known and stable frequency distribution of the contingencies which lead to the demand for insurance such that premiums, based upon loaded odds, can be set which enable the party at risk to transform a large contingent loss into a small certain cost.[1] Decision makers who have to act in the face of uncertainty seek to protect themselves against unfavorable contingencies by the way in which they arrange their affairs. This involves avoiding events that might cause losses and composing asset and liability structures that provide protection against unfavorable contingencies.

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[1] M. Friedman and T. J. Savage:

Keynes' General Theory was written in response to The Great Depression and in the face of a financial collapse that was associated with an enormous downward movement of prices. An analysis of investment under conditions of uncertainty and with capitalist financial usages is the core of his theory. Unfortunately for the development of economic theory, for an understanding of how our economy works, and for the design of policy to improve the performance of our economies Keynes' investment theory of business cycles and his financial theory of investment in the face of uncertainty was lost as the standard interpretation of Keynes' General Theory was developed.

In the standard interpretations Keynes has been integrated with the classical theory of Chapter VI to form today's ruling neoclassical synthesis. Whereas Keynes in The General Theory proposed that economists look at the economy in quite a different way than hitherto, only those parts of The General Theory that could be readily integrated into the old way of looking at things survived in today's standard theory. What was lost was a view of an economy always in transit because there are disequilibrating forces that are internal to the economy. As a result success in operating the economy is transitory. Instability is the inherent and essential flaw of Capitalism.

The view that survived from the General Theory is that a small number of things went wrong when the economy went into the Great Depression and apt policy can assure that it cannot happen again. The standard theory of the late 1950's seemed to assert that if policy were apt full employment at stable prices could be attained and sustained. The existence of internally disruptive forces was ignored. The neoclassical synthesis became the economics of capitalism without capitalists, capital assets and financial markets; very little of Keynes survived in standard economics.

B. Chronology of the Keynesian Input

To understand the interpretations and the influence of Keynes over the last forty years it is useful to keep some dates in mind. In the United States the downward phase of the Great Depression took place between late 1929 and early 1933; a convenient beginning is the crash in the New York Stock Market in October 1929, a convenient end is the inauguration of Franklin Roosevelt as President in March of 1933. The economy never fully recovered, until very late in the 1930's when arms expenditures in preparation of World War II became important. World War II began in Europe in September 1939. Pearl Harbor, and with it the United States' entry into World War II, took place in December 1941.

Keynes published his "revolutionary theory" in The General Theory of Employment Interest and Money which appeared in 1936. (The preface is dated December 13, 1935.) The reviews and formal, often semi-mathematical, expositions of what The General Theory is about began to appear in 1937.

The reform and recovery efforts of Roosevelt's first term preceded the appearance of The General Theory: Roosevelt's second term began in January 1937. After The General Theory appeared some of its ideas were used to rationalize the effects of the government deficits that occurred during the recovery years. However the government spending programs of the first years of Roosevelt's "New Deal" were motivated, rationalized, and defended on the humanitarian grounds that the unemployed needed income so as not to starve. Work was the way to provide income; the idea that money income could be distributed independently of work by means of a "dole" was anathema to both Roosevelt and the country. The idea that a government deficit would increase output and employment in the private portions of the economy was not advanced as the reasons for the government

spending programs, even though some ideas that "pump priming: was a good thing were advanced.

The New Deal was a reform effort as well as a recovery program. The structural reforms of 1933-37 were in place before the ideas of The General Theory had any influence. Many of the reforms tried to arrange things so that a Great Depression could not occur again, thus they had to reflect an explanation of the Great Depression. The reforms of the New Deal years mainly treated price deflation as the major cause of the Great Depression; from the "theory" of The General Theory price deflation was a symptom and part of the process that led to the severity of the depression, but it was not the cause of the depression. From the perspective of The General Theory the structural reforms of 1933-37 treated a symptom but not a cause of the great decline.

A recession occurred in 1937. This recession was largely imputed to price increases that occurred in markets where "administered price" ruled as the partial recovery took place. Some economists, newly converted to Keynes, such as Alvin Hansen, emphasized the fiscal push from the Veteran's bonus of 1936, the fiscal and monetary constraint as the economy moved towards a balanced budget in 1937, and Federal Reserve action to offset what was viewed as an inflationary potential as cause of the recession.

The recession of 1937-38 led the Temporary National Economic Commission, which tended to blame monopoly and administered prices for the incomplete expansion. However Professor Alvin Hansen's testimony to the Commission was important in introducing Keynesian ideas into the United States policy discussions. It was not until the expansion of government activity with World War II that a

significant number of economists who had been influenced by Keynes became active in government and influenced policy.

Keynesian ideas had some quick influence because the theory, even in the bowdlerized form in which it was accepted, held that the market mechanism was not necessarily a self-correcting system that sought out and sustained a full employment situation. In the 1930's it was obvious that the market was a fallible coordinator of economic activity. Even if the economy tended to correct deviations from full employment, the correction did not take place quickly. Furthermore the path from an initial disturbance to a reasonably close approximation to full employment seemed to go through "hell". The time it took for the internal adjustment processes to lead the economy back to full employment after a great recursive decline, like that of 1929-1933, was too long and too costly to be acceptable politically once it is accepted that prolonged depressions could be avoided.

An economic order is a human artifact that can be changed. The thirties were replete with various suggestions for reforming the market mechanism. The interpretation of Keynes that entered into the neoclassical synthesis ignores the critique of capitalism as such that is contained in The General Theory. Keynes was interpreted to mean that a close approximation to full employment can be achieved and sustained regardless of the structure and institutional organization of labor and product markets. This meant that the politically touchy problems of the structure of industry could be largely ignored in formulating policy. Recovery and the sustaining of full employment did not require a devisive struggle with the giant firms and the emerging unions. Monopoly/cartel policies were not vital if their potentially adverse effects upon employment can be offset by an appropriate fiscal policy.

C. Labor Market: Dominant or Dependent

A characteristic of Keynesian models is that the level of employment is not determined by the internal working of the labor market. The story told by classical aggregate models begins by supply and demand conditions in the labor market determining employment and price deflated wages. This equilibrium employment reflects production characteristics of firms and preference systems of households. In this theory the labor market is treated in a manner that is analagous to how a market for peas or pea shooters would be treated. The assumed dynamics are that if a disequilibrium in the form of either excess supply or demand for labor appears, changes in the price deflated wage will eliminate the disequilibrium. Once employment is given, the economy's production characteristics determine output.

In place of the above classical scenario, Keynes told a tale that beings with the determination of the demand for output: The demand for output by households and business are taken up in the pure model, the demand for output by government is added in the policy model. Total demand is the sum of these sectoral demands. Employment equals the demand for labor as derived from output demand, provided the labor demanded is equal to or less than the quantity available at the ruling set of money wages. In Keynes' view it is possible for the supply of labor at a ruling money wage to exceed demand and for the processes set in motion by an excess supply of labor to be ineffective in eliminating the excess supply.

Keynes characterized this situation of involuntary unemployment as an equilibrium. It obviously is not a no excess supply-no excess demand situation; it is an equilibrium only in the sense that the excess supply will not be readily eliminated by processes set to work by the excess supply.

In considering the processes that are set off by excess supply or demand it is useful to distinguish between own market and intermarket processes. The own market reactions include the movement of the price and quantity of the commodity or service itself. The intermarket reactions depend upon how changes in own market variables affect supply or demand conditions in other markets and whether appropriate feedbacks from other market changes occur in the initial market. In the labor market the own market variables are the money wages of labor and the amount of labor actually employed. By the standard dynamics excess supply of labor is presumed to lead to a fall in the money wage. A fall in the money wage lowers supply prices of output and the incomes of the employed workers. Lower income lowers demand. With wages lower both the supply and demand for output will decrease; there is no presumption that a fall in money wages will lower price deflated wages. The effects of changes in labor market variables upon the labor supply and demand relations are such that an initial excess supply of labor may not be eliminated.

If a fall in money wages cannot eliminate excess supply of labor through own market reactions, perhaps it can work towards eliminating excess supply of labor by way of its effects upon other markets. Within the Keynesian framework this question is transformed into how do falling money wages and output prices affect consumption and investment expenditures. Keynes emphasized one indirect path by which a decline in money wages leads to lower interest rates by increasing the price level deflated money supply, and he showed that this effect is likely to be of limited power in removing the excess supply. Furthermore he emphasized that a fall in money wages and prices will make things worse initially because it will decrease the cash flows that are necessary to meet commitments on debts.

The essence of the neoclassical synthesis is to accept Keynes' formulation, that aggregate demand determines a demand for labor that is independent of the price level deflated money wages, and then show that market processes will assure that the demand for labor will in time equal the full employment demand for labor. If an excess supply of labor exists market processes will shift the demand for output so that the demand curve for labor shifts. As a result the excess supply is in time eliminated; the quantity of labor demanded increases because aggregate demand increases. Because Keynes showed that the path from excess labor supply through falling money wage rates to interest rates and investment demand was full of slips, the neoclassical synthesis introduces an effect upon consumption demand from a fall in money wage such that a decrease in money wages leads to an increase in consumption demand.

The neoclassical synthesis starts with a conclusion that labor market equilibrium determines output and constructs an apparatus that demonstrates the validity of the conclusion. The conclusion that the market mechanism will lead to full employment equilibrium from initial situations in which unemployment rules is powerful. The inventors of the neoclassical synthesis granted Keynes a great deal--the basic analytical apparatus and the initial situation of unemployment equilibrium conform to Keynes' views. The neoclassical synthesis also grant the ineffectiveness of labor market processes in eliminating unemployment and accepts that the path from wage declines through interest rate declines to investment can fail to achieve a close approximation to full employment. Nevertheless by making a reasonable assumption that with the same income a wealthier consumer will spend more than a less wealthy consumer the neoclassical synthesis shows that a market economy contains an internal mechanism that assures that the demand curve for labor derived from aggregate demand will intersect

the "classical" supply and demand for labor at their intersection, i.e., at full employment.

In the Keynesian scheme the labor market does not determine employment and output. The money wage enters the cost and therefore the supply conditions of output from labor. The money wage has a major role in determining the price level in Keynes' scheme. In this argument money prices are not determined after relative prices as the quantity theory holds; money prices and relative prices are determined simultaneously in labor and product markets.

D. The Hansen/Klein Tradition: The Keynesianism of Elementary Textbooks, Econometric Forecasting, and Policy Simulations.

In Keynes employment depends upon the interaction of aggregate demand and supply. However in the standard interpretations Keynes' theory of aggregate supply was largely ignored. The determination of aggregate supply under capitalist circumstances is subtle, it is not as standard theory has it simply a transformation of production possibilities. In a capitalist economy output is supplied as a by-product of the pursuit of profits. Profits from the use of capital-assets at any one time or in a particular use may be earned at the expense of not having the capital-assets available at another time or for a different use. Thus "time" enters in the very special guise of foregone possible future revenues in determining the supply of outputs that use capital-assets whose productive powers are not automatically replenished by nature. Under capitalist circumstances supply depends upon views businessmen hold about current and future profit opportunities and the cost of carrying unused capital-assets. The theory of supply under capitalist circumstances cannot ignore the way control over capital-assets is financed and the payment requirements imposed by financing conditions.

The ingredients from Keynes' analysis of supply that entered the standard interpretation are that varying amounts of output, up to some full employment level, can be produced and that the supply price per unit of output will tend to be constant, or slowly changing, for outputs smaller, by some amount, than the full employment output. If aggregate demand exceeds the full employment aggregate supply at inherited prices then supply prices will tend to rise. If aggregate demand falls short of the full employment level by some modest

amount then prices will not fall or will fall but slightly. This gives rise to a theory in which prices do not change much for some range of aggregate demands relative to aggregate supply, tend to increase if aggregate demand exceeds some level and tend to fall if aggregate demand falls below some level. The movement of prices in general is not determined by some mechanism that is separate from the movement of particular prices, which reflect supply and demand conditions in markets. Presumably if aggregate demand rises relative to an unchanging aggregate supply function, the demand for particular commodities will rise relative to their supplies. The same mechanism applies to price level determination as applies to the determination of particular prices. Whereas the classical theory had the forces of supply and demand determine relative prices and the Quantity Theory determine the price level, the Keynesian aggregate supply and demand theory determines money prices by the same mechanism that is used to determine relative prices.

Given the specification of aggregate supply that entered the literature, employment depends upon aggregate effective demand. Up to some full employment barrier a rise in aggregate demand leads mainly to a rise in employment, beyond that it mainly leads to a rise in prices. For purposes of analysis private domestic demand is broken into components that are homogeneous with respect to the units involved and their behavior. Households are one homogeneous class and households have incomes and buy "consumption goods". Another homogeneous class consists of business firms, which have current and anticipated profits, own capital-assets and financial assets, and which usually have liabilities outstanding that require either cash for servicing or which lead to some financial market transaction. Investment is the component of aggregate demand that is due to business.

In addition to private domestic aggregate demand, foreign demand and government demand enter into total aggregate demand. Total aggregate demand equals total output, which is called gross national product. Gross National Product is equal to the sum of consumption, investment, export and government outputs; furthermore consumption demand is a function of income after tax adjustments. Because of this behavioral specification--that consumption depends upon income--it is possible to derive income as to multiple of the sum of investment, foreign, and government demand. In this version of Keynesian theory--as mainly developed by Alvin Hansen--the aggregate demand for output and thus for labor is a multiple, which is derived from the relation between consumption and income, of investment, exports and politically determined government spending and taxation. In this view any shortfall of income from some target level can be offset by an appropriate change in government expenditure or taxes; fiscal pricing becomes a device for steering the economy.

Because this view holds that consumption is a well behaved function of income and income in the "closed economy case" is the sum of consumption, investment and government spending income becomes a function of investment and government spending. In the simple case the function boils down to the proposition that income is some constant K times investment and government spending. Furthermore K is the reciprocal of the ratio of an increment to savings to an increment to income; this ratio is called the marginal propensity to save.

The ideas that savings out of income has to be offset by investment and government expenditure and that more investment (or government spending) leads to higher incomes which generate the offsetting savings are clearly stated in this simple one function model due to Hansen. Conservative businessmen, politicians, and public figures who argue that the tax system should be adjusted

to increase incentives for business to invest because more investment means higher incomes and employment are implicitly accepting the validity of this simple Hansen model.

The consumption function/multiplier model builds on a small part of the argument and analysis of Keynes' General Theory. Excluding the Preface and the Index, The General Theory runs for some 384 pages. The General Theory is broken down into six books and 24 chapters. Three chapters totaling 43 pages make up Book III, "The Propensity to Consume". Eight chapters totaling 118 pages made up Book IV, "The Inducement to Invest". From the makeup of the book it is evident that Keynes viewed the issues around investment as more important and more difficult than the problems of consumption.

The outbreak of World War II occurred in September of 1939 and soon afterwards Keynes and some of his Cambridge students were ensconsed in the government. It turned out that thinking in terms of the aggregates of Keynesian theory proved useful in war planning. During a serious war investment on private account diminishes to the vanishing point: Government war demand and consumption make up aggregate demand. Furthermore in such war taxation and rationing are used to constrain and control consumer spending. In war the conundrums that concerned Keynes about investment, the financing of investment, and the relation between financial flows and system coherence or stability are irrelevant.

A war economy is one in which finance--aside from government finance--is unimportant. As World War II progressed increasingly complicated models based upon the consumption function and exogenously determined or controlled investment and government spending were developed. These models became a basis for planning for demobilization and the return to a civilian economy. It therefore is no

surprise that in the early postwar years ways of analysing the private economy and techniques for forecasting were developed which were based upon the consumption function. These models either ignored monetary and financial relations or introduced monetary and financial relations in a very primative way. A leading player of this model building game is Professor L. Klein.

Forecasting models were first developed as academic exercises and later became instruments used in policy analysis and forecasting. The technique for building such a model is to add sectors, such as state and local government or to break aggregate demand into components such as breaking consumption into durable, non-durable, service and automobile demand, and derive empirical equations between these sectoral variables to other variables in the system, prior values of variables, variables which reflect policy decisions and outside unexplained variables. By breaking down variables like consumption and investment into component parts and by introducing sectors such as state and local government and financial institutions, the outcome in terms of income and employment is made to depend upon a complex system of relations, an apparent structure of the economy underlies the model.

It is quite common to set the model up in terms of "markets"--such as durable goods, services, labor--and to treat aggregate demand as if it were the result of the behavior in these markets. However, these are "pseudo-markets" for there are no markets for durable consumer goods, there are various kinds of durable goods and each kind is produced by firms and sold by retail outlets in markets with particular institutional characteristics. The structural models of the economist are not like the models that aeronautical engineers test in wind tunnels. They are not miniature replications of what goes on in the economy;

the "structural models" of the forecasters are "disaggregations" of the larger aggregates used in simple Hansenian theory.

By disaggregating and introducing additional variables, each of which requires further explanation it is possible to make the forecasting format as complicated as is desired even though the intellectual sophistication of the work never goes beyond that of the simple consumption function or multiplier model.

Consumption function based forecasting models survive in various government agencies, the Federal Reserve System, and a good number of profitable commercial services. These models are continuously revised to take into account emerging data. Their existence as 'up to the minute' forecasting tools depends heavily upon capabilities of modern electronic computers. Because computers allow experimentation with different forms and different variables for the equations that summarize experience and enter into the model, the models generally use fitted equations that best satisfy statistical tests for the closeness with which formulas replicate past experience. With this experimental approach the structure of forecasting models change by modifying existing equations. The existing models are a hodge podge of often contradictory pieces.

Forecasting involves feeding policy items such as government spending and taxing formulas and Federal Reserve operations into a model which consists of equations that represent the components of aggregate demand. The various equations have parameters which were derived empirically. Each structural model is transformed into "solution" equations for the system determined variables that interest the forecaster. The model gives values of variables for a particular date as a function of the past of the system. If the model is well

behaved, the "forecast" values of the variables can be used as "past values" to get even further into the future values of the variables of interest. By such recursive computations a time series can be generated. Each time series can be called a "run" of the model. By varying the policy premises and the behavior of unexplained variables multiple runs of the model can be generated. If these different runs vary in their policy assumptions, they are policy simulations. Policy evaluations such as "If we give each person a $50 rebate, then income will be ____ higher, inflation will be _____ greater and unemployment will be ____ lower than otherwise" are the result of simulations of the economy by runs with forecasting models.[1]

Policy simulations can also be made by varying the fitted or estimated parameters in structural models where the change in legislation or in institution is expected to affect these parameters. Simulations of complex models to allow for changes in minimum wage or in pollution control are made. Even though the policy simulations lead to impressive computer printouts, the simulation cannot be any "better" or more relevant than the underlying model, and the underlying econometric model cannot be closer to economic reality than the economic theory that inspired the model builder. In particular events such as instability from within the workings of the economy because of financial interrelations cannot be caught by a model which does not specify the financial structure so that instability is possible.

As the 1970's progressed it became clear that models which ignored financial relations would not do as forecasting models. As a result of the vigorous attack by monetarists upon the forecasting models and the failure of the models

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[1]Suits, D

to forecast much of what happened, the models were modified so that the money supply--as an exogenous factor--became of greater importance in the forecasting process. We now have forecasting models which combine Keynesian aggregate demand and classical quantity theory ideas. Such models are internally inconsistent; whatever success they enjoy is due to the way in which the past values of variables are used to estimate near term future values. What little success they enjoy demonstrates that the economy has a good deal of momentum.

The simple consumption function approach is also used in models of economic growth. In these models it is assumed that investment automatically fills the gap between full employment or capacity income and consumption. Thus the average propensity to save determines the proportion of income (and employment) that is used to produce investment output. Presumably the ratio of investment to the capital stock determines the rate of growth of the economy, thus if we can assume full employment more savings implies a faster rate of growth.

Two assertions about the relation between investment and the performance of the economy are common. One is that investment is needed because it generates employment. This follows from the simple Keynesian model; but this model also asserts that consumption, government spending, and exports generate employment. The second is that investment generates economic growth and that higher ratios of investment to income will accelerate growth. As more saving will take place if there is more investment, it is common to hold that policy which aims to increase the savings ratio, either directly by redistributing income or indirectly by increasing the willingness and ability of firms to debt finance, is necessary.

The simple Hansen consumption function model was the backbone of an entire generation of economics textbooks and the rock upon which the fiscal policy approach to fine tuning the economy such as characterized the Kennedy-Johnson

years was based. It was durable because it was the intellectual basis of apparently successful policy as well as of the forecasting and policy simulation models. As policy has become less successful the Hansen model is losing its popularity. Nevertheless the econometric models, which are very complex structures built upon the extremely simple theoretical input of the Hansen models have survived as a tool of policy analysis.

When forecasts are wrong and forecasts only affect private decisions, the losers are those business firms and households who acted on the basis of the forecasts. However when models based on the consumption function are used in policy simulations and become the basis of policy then errors can have serious consequences.

Instability was an evident trait of the economy in the years following the middle-1960's. The models derived from the Hansen formulation are incapable of generating financial instability by their internal processes. Policy decisions on the basis of simulations with such models reflect the explicit assumption that financial instability cannot occur or is not relevant. Policy decisions made by ignoring a major part of reality will often result in the economy missing the policy objectives.

The line of development from Hansen's simplification of Keynes' concepts to the consumption functions based forecasting and simulation models provided economists with a simple, powerful and relevant way of looking at our economy as long as the economy was such that financial and monetary factors could be largely ignored. The early postwar period--running from 1945 to the middle 1960's--was just such a period of financial and monetary tranquility. Financial and monetary tranquility has been replaced by turbulence in recent years and

the reliability of the models derived from Hansen has declined. Forecasts and policy simulations with such models have been poor guides to policy: The economy does not behave as it is "supposed" to.

E. The Hicks' Version

The formalization of Keynes that John R. Hicks put forward in a famous article that appeared in 1937, soon after The General Theory was published, goes beyond the simple consumption function model of Hansen. Hicks recognized that the essence of Keynes' theory was that financial and monetary variables cannot be segregated from the determination of aggregate output. Hicks integrated the financial and the commodity sides of the economy by allowing for two sets of markets, one for commodities and the other for "money" or "finance" (bonds). Hicks made the functional relations in both sets of markets depend upon the interest rate and the level of income. He set the problem up as the determination of equilibrium in an interrelated set of markets: Aggregate demand and the interest rate settle at the level which simultaneously satisfied the conditions for equilibrium in both the commodity and money markets.

A parrot trained to say supply and demand could pass as an economist. J. R. Hicks set the determination of aggregate demand up as a "supply and demand" problem; however in both the commodity and the money market he recognized that there are combinations of interest rates and incomes that would equate supply and demand. In the commodity market the supply of each component of output conformed to the fixed price, within a range of outputs, view of aggregate supply that entered into Hansen's formulation. As in Hansen, demand for commodities is made up of two parts: The demand for consumption and the demand for investment.

Consumption demand was taken to be a function of income and the interest rate. The use of income as a variable was a bow towards what later emerged as the Hansen model. The use of the interest rate as a determinant of consumption was a bow to the classical views of savings.

Hicks took investment to be a function of the interest rate and the level of income (mainly as an afterthought). At this point Hicks made a major step towards accepting the classical model, for the relation between investment demand and the interest rate reflected the marginal productivity of investment. This identification of the interest rate with a production function attribute meant that Hicks was implicitly and inadvertently assuming that the economy functioned at some unique "full employment" income level. In an economy with variable levels of employed to employable labor, the profits earned by capital assets depend upon the extent to which aggregate demand leads to scarcity of capital-asset services. A steel mill is just as productive technologically when it is working well below capacity as when it is working at capacity, although it may be much more profitable at capacity output than at lower capacity utilization levels.

Income equals consumption plus investment and both consumption and investment are functions of the interest rate and income. A two dimensional curve relating interest and income is derived: On a graph in which the price (the interest rate) is the vertical axis and the quantity (income) is the horizontal axis this curve slopes downwards and to the right. The rationale is that lower interest rates induces the use of factor combinations which use more capital assets relative to labor; thus lower interest rates mean a greater rate of investment. More investment in the multiplier relation means larger incomes.

The argument with respect to the interest-investment relation used in the Hicks' formulation and in most formulations which stick to such an inter-market equilibrium approach is mainly a hand wave. Even if it is true that lower interest rates implies that production is best carried on with higher capital output ratios, investment is a time rate of change of capital assets.

A desire for a larger capital stock doesn't necessarily mean that the capital stock will increase at a more rapid rate. However we can carp about the Hicks' formulation later, at present our aim is exposition. In his original article Hicks offered no argument for the way he stated his investment function. The long arguments about investment and capital asset/financial instrument prices in Keynes' General Theory were ignored.

Money is demanded for its ability to expedite those transactions which enter into current output and as an asset which offers an "in kind yield". (Hicks and the other economists of the neoclassical synthesis have a problem at this point. Because they do not recognize the importance of Keynes' hypothesis with respect to uncertainty, there is no "return" that they can identify with the "in kind yield" of money.) The relation between money demand and current output means that income is a variable in the demand for money and the "yield in kind" attribute of money is equated to the return on bonds, i.e., to an interest rate. If income is given then the greater the amount of money the lower the interest rate and for any given quantity of money a higher income is associated with a higher interest rate. Thus for any hypothetical quantity of money a set of combinations of interest rates and income exist at which the demand for money equals the hypothetical supply.

Ignoring everything Keynes wrote about the way in which the quantity of money arises within a capitalist economy in the financing of activity, the Hicksian tradition assumes that the money supply is determined by the authorities. This means that the quantity of money is a policy variable. By varying the amount of money in existence the authorities determine the ruling set of interest rate-income combinations. For a given money supply the interest rate-income

combinations that yield equilibrium in the "money" and thus in the financial markets slopes upwards--a higher income is associated with a higher interest rate.

One curve slopes downwards and the other slopes upwards and interest rates and income both must be positive. As the market equilibrium values of both income and interest are penned into the "first quadrant", the two market equilibrium curves intersect: There is one unique interest rate and income pair that simultaneously satisfies the equilibrium conditions in the money and the commodity markets. If the quantity of money changes then the equilibrium interest rate--income combinations for the money market can change and thus the intersection with the commodity market equilibrium function will change.

Once income is determined the level of employment is also determined. Let us assume employment is below the full employment level. A greater amount of money can be expected to lower the interest rate and raise the income level--thus tending to decrease unemployment. It looks as if the model of Keynes has been transformed into a model in which money calls the tune: an appropriate quantity of money will lead to a full employment income level.

In order to get unemployment as an equilibrium position independently of the amount of money supplied by the authorities it is necessary to introduce specifications of the shape or position of the commodity or the money market equilibrium curves. One way this can be done is by an "exhaustion of investment opportunity" specification of the investment demand function. What if the amount of investment forthcoming at a zero interest rate is insufficient to generate full employment, given the nature of the consumption income relation? That is no matter how low the interest rate may be driven by increasing the money supply, investment cannot be large enough to offset full employment savings?

If "investment" insufficiency is the cause of the unemployment equilibrium then policy can go one of three ways: government spending can be added onto income, the returns to investment can be increased by government guarantees, or the cost of investment can be lowered relative to the stream of anticipated profits. The first route leads to government spending programs, whether they be on roads or missiles, and transfer payments which raise the consumption income relation. Transfer payments mean that the investment level compatible with any employment level decreases.

Government guarantees of returns on investment projects have rarely been used in peacetime in the United States. However government guarantees have been used on mortgages.

Since the middle 1960's the diagnosis has been that more investment is needed for both full employment and faster growth. Investment tax credits have been used to lower the price of investment relative to profits and the prices of other outputs. Fundamentally investment tax credits are a way of lowering the price of investment goods.

Unemployment would be unresponsive to changes in the supply of money within the Hicks' formalization if the interest rate is independent of the money supply. This is the famous liquidity trap--an increase in the quantity of money for certain ranges of incomes and the money supply does not lower the interest rate. That is while increasing the money supply may be an effective way of lowering high interest rates it is ineffective in lowering already low rates; monetary policy will work in a prosperous but not in a depressed economy.

The liquidity trap argument renders monetary policy ineffective in situations where low interest rates rule but retains its effectiveness in situations where

higher interest rates rule. However the low interest rates of the liquidity trap characterize deep depressions. Thus monetary changes will not be effective in getting an enterprise economy out of a deep depression but it will be of use in steering the economy in situations which are not deep depressions.

The Hicks' formulation was the basis for well-nigh thirty years of textbook expositions of the Keynesian model. The curve of the equilibrium interest rates and incomes in the commodity market is usually labeled IS and the curve of the equilibrium interest rates and incomes in the money/bond market is usually labeled LM the Hicks' formulation is known as the IS-LM model. Martin Bronfenbrenner, a well known economist of wit, has labeled the Hicksian model the world of ISLAM. Much of research and policy prescription and a great deal of teaching uses the IS-LM formulation.

The IS-LM formulation is not the neoclassical synthesis though it paved the way for the neoclassical synthesis. It stated the money demand equation in such a way that it could be interpreted as the quantity theory money demand equation with a variable velocity and it accepted a classical view of the investment function. The Hicks formulation did not contain a mechanism by which reactions induced by an excess of labor supply could lead to an increased demand for labor. Although it had gone quite a ways towards accommodating classical ideas, the Hicks' model did not achieve the labor market dominance that is required for a classical equilibrium.

F. The Patinkin Resolution: The Triumph of Labor Market Dominance

To the leading economists of his day Keynes' results that the demand for labor may fall short of the supply at "prevailing" wages, that in these circumstances demand will determine employment and output, and that the changes in money wages, money prices and outputs resulting from market reactions to an excess supply of labor will not necessarily succeed in eliminating the excess supply, were unsatisfactory. Furthermore Keynes' further result, that falling wages and prices induced by excess supply of labor are likely to make unemployment worse rather than better (because as falling wages and prices tend to lower the investment component of demand), flew in the face of the standard wisdom that the economy was a "self-equilibrating" system. Keynes' theory implied that there may be no market processes which guaranteed that the economy would achieve equilibrium and that the internal processes of a decentralized market economy could be disequilibrating. Keynes' theory implies that the coherence result of classical theory is valid only under highly restrictive conditions. The financial and monetary systems, in particular, must be at some proper state and work in some proper way for coherence to exist. Keynes sent a neoclassical house of cards tumbling down.

Keynes' results meant that there was a "prize" awaiting any academic who could upset the heresy. The game became to show that even if Keynes is granted almost all of his assumptions and postulates, a decentralized market mechanism will tend to attain and then sustain full employment.

Part of the success of Keynesian analysis--and also one reason why the full scope of Keynes' alternative economic theory was not recognized--was due to the development, almost concurrently with the publication of The General

Theory, of national income accounting. A system of national income accounts was largely developed for the United States by Simon Kuznets. Preliminary results of Kuznets' research were available to Keynes as he wrote The General Theory. The system of accounts developed by Kuznets treated income in ways that are compatible with the breakdown of demand into homogeneous "behavioral" classes. It was but a small logical step to use the apparatus as developed by Hansen and Hicks to explain the national income accounts. A symbiotic relation developed between national income accounting and the standard interpretation of The General Theory: national income accounting was relevant because of the analysis derived from The General Theory, and The General Theory led to meaningful metrical statements about the economy because of the existence of national income data. [Cite Hicks' little textbook of the late 30's.]

Simon Kuznets first developed the United States' national income accounts for years after 1919. [Citations.] After the system of accounts seemed to prove useful, they were kept current. (Today the accounts of the United States are prepared in the Department of Commerce.) A second stage of Kuznets' research carried the national income accounts back into the 19th century. Kuznets' research on the behavior of national income and its components showed that there was a difference between the short run--or cyclical--and the long run--or secular--behavior of the consumption-income ratio. In the short run--or over a 'business cycle'--the ratio of consumption to income varied: the ratio of consumption to income was higher in recessions than in prosperity. In the long run in which averages over the business cycles of experience are computed, the ratio of consumption to income seems to be constant. The secular increase after allowing for price increases in per capita income is not associated with

any secular increase in the ratio of savings to income. Even though an increase in income per capita during a cyclical expansion leads to a rise in the savings ratio an increase in income per capita that reflects a secular trend does not increase the savings ratio.

A rise in the savings ratio during a cyclical expansion means that investment has to increase at an even faster rate as the economy moves to full employment if the movement is to be maintained. If a higher investment to income ratio is required as an expansion progresses, then it is difficult to sustain the expansion. Thus the short run behavior of the consumption income ratio that was apparent in the Kuznets data gives weight to views that an insufficiency of investment or short run oversaving led to the cyclical behavior of the economy.

The apparent paradox, in which the secular consumption-income ratio is constant whereas the cyclical ratio is variable, is the type of "problem" that academic researchers like: reputations are there to make by introducing a gimmick that resolves the paradox. Many played this game and various resolutions of paradox appeared. These resolutions tend to fall into two classes; one tried to explain the observations by referring to social and psychological phenomena, the other referred to the economic phenomena of accumulation. One set of social and psychological explanations tended to argue that it takes time to adjust to increases in income and that once a consumption level is attained, it will be defended even if that involves decreasing savings or the dipping into accumulation.[1] Thus when income is reduced in a recession consumption tends to be sustained. Another set argued that "consumers" looked at their lifetime or permanent income.[2] Consumption in this view is based either

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[1]Duesenberry

[2]Modigliani, F.
Friedman, Milton

upon the present value of all future incomes and where a unit is in its "life cycle" or upon the "permanent" income that a unit expects to receive. In principle both the lifetime and the permanent income concepts assume that a consuming unit has a "trade" or "skills", these skills fit the unit into production processes and the marginal produce of its "skills" or "trade" in the production functions leads to its income. From time to time deviations from this production function determined income will arise, but these deviations will not affect consumption. In depressions this income deviation is negative, in prosperity it is positive. Thus in depressions the ratio of consumption to income is high and in prosperity it is low. These life cycle and permanent income theories of consumption reconciled the difference between the cyclical and secular behavior of consumption.

When our economy does well, investment takes place and presumably useful capital-assets are accumulated: the average per capita wealth increases. If we make the assumption that the greater the value of wealth for a given income the smaller the incentive to save, then there will be a secular upward drift in the consumption income ratio as accumulation takes place. If over a business cycle the wealth per capita increases along with the income per capita and if the wealth/income ratio tends to remain about the same, then the incentives/disincentives to save will be about the same even though income per capita has increased. Under these circumstances it is easy to accept that in the longer run the savings/income ratio will tend to remain constant.

The observation that the longer run savings/income ratio hasn't changed very much as income per capita increased and the explanation of this observation by referring to the effects of increased wealth upon consumption are keys to the

construction of the neoclassical synthesis. What is needed is a way for the processes that presumably are set in motion by unemployment to lead to a rise in the consumption income relation. A rise in this relation means that for every level of investment income and thus employment will be higher.

A basic assumption in economics is that excess supply leads to a fall in the price. Therefore excess supply of labor (unemployment) means that money wages will fall; a fall in money wages leads to a fall in money supply prices. The money wage rate deflated by a price level need not fall. If the price level deflated money wage is assumed to be the determinant of both the demand and supply of labor no reduction in unemployment need occur when wages and prices fall. To get a reduction in unemployment a decline in money wages and prices need increase either consumption or investment demand. The path to increased demand by way of interest rate declines was known to be barred by adverse expectational effects. The only way that price deflation can increase aggregate demand is if it increases consumption demand.

If falling prices leads to an increase in wealth per capita then consumption per unit of income will likely increase. Wealth mainly consists of capital-assets. Capital-assets have value solely because of the cash flows or profits they are expected to generate. A general decline in wages and prices is likely to lead to an equal or greater decline in the cash flows or profits that accrue to capital-assets. The value of capital-assets will go down as fast as or faster than the price level of output. The value of real capital assets cannot be a wealth effect that increases consumption when money prices fall.

However the owners of wealth do not own only capital-assets, they also own money and bonds. Presumably the price deflated value of money and bonds will rise with falling prices: this should push consumption demand upwards.

However bank money is typically the result of debts to banks by private individuals and business. The burden of the payments required by debts increases as price deflation takes place. The expansionary effects upon consumption due to the rise in the price deflated value of money will be offset by the effect upon both investment and consumption due to the increased burden of servicing debt as prices fall. The desired shift in the aggregate demand curves will not take place as a result of a wage and price deflation as long as capital-assets, private debts denominated in money, or money that arises from private debts are the only assets--real and financial--in the economy.

The debts of banks that make up the money supply are offset by three classes of bank assets: private debts of the kind discussed in the above paragraphs, interest bearing government debts, and gold or "fiat" currency issued by governments. Ignoring questions of whether units are aware of the increased price deflated taxes that will be required to service interest bearing government debt as a price level deflation takes place, it is evident that a fall in prices will tend to increase the price deflated value of government debt (whether held by a bank or by households and businesses). The price deflated value of gold or fiat money will also increase as money prices fall.

This real balance effect--that an increase in the price deflated relevant money supply will increase the consumption income ratio for every income--is the rock upon which the neoclassical synthesis is founded.[1] If as a result of unemployment wages and prices fall so that a rise in the price deflated money supply takes place than the excess money supply will finance demand. If wages

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[1]Friedman, M. (Monetary Framework).

and prices fall as long as labor supply exceeds labor demand and if falling prices increase consumption, then in time the labor supply will no longer exceed labor demanded and the decline in prices will cease.

Once demand for labor derived from the sum of investment and consumption demands passes through the intersection of the labor demand and supply curves in terms of the price deflated wage then the price deflation ceases. In this model the classical labor market is dominant so that the system settles at an income level given by the full employment labor supply. Once output is given, then the savings and investment functions determine the interest rate. Once the interest rate is given, then the "velocity" or the cash balance is determined. With output and velocity, the demand and supply of money determines the price level. The Keynesian beginning leads to the classical result once the money as wealth effect is introduced. The money as wealth effect is known as the real balance effect.

The "trick" of introducing the price deflated value of the money stock that does not reflect private debt into the consumption function is mainly credited to Don Patinkin: Hence this "real balance" path to achieve the demand consistent with labor market equilibrium is properly labeled the Patinkin resolution.[1] If we start with a Patinkin equilibrium and change the quantity of the relevant type of money then a disequilibrium will be set up along with various destabilizing and equilibrating processes. Eventually the equilibrating process will take over and will seek out the price level that stands in the same ratio to the initial price level as the new quantity of relevant money stands to the initial quantity. At this new equilibrium all the variables of

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[1]Patinkin, D., Money, Interest and Prices.

the system other than the money supply and the price level will be exactly as they were in the initial equilibrium. The Patinkin resolution reestablishes the quantity theory of money--except that the proportionality between the price level and the money supply holds at equilibrium positions. Out of equilibrium positions are characterized by deviations from this equilibrium ratio between money and money prices.

With the Patinkin resolution we have achieved the neoclassical synthesis. The fulcrum used to move the world to its full employment equilibrium is the excess demand (or supply) for commodities or services that exists whenever there is an excess supply (or demand) of money. Truly the Patinkin resolution is more than the quantity theory of money, for it achieves the labor market dominance that characterizes neoclassical economics as a theorem rather than as an assumption. It is a magnificent example of the logical game in which almost everything the competing theory needs is accepted and then on the basis of one seemingly innocent assumption that desired result is obtained and the opponents are crushed.

However in achieving the labor market dominated equilibrium as the result of market processes, the Patinkin resolution proves too much. It leaves the neoclassical synthesis with no explanation of how an economy can get by its own processes into an initial unemployment or inflationary position. Once the economy is out of equilibrium the Patinkin resolution shows how equilibrium is established but it cannot generate a disequilibrium.

Furthermore within the world of the Patinkin resolution the appropriate money supply is not the money supply as reported by the Federal Reserve, it is the money supply that is not offset by private debts to the banking system. In many ways the Patinkin resolution operates as if the entire money supply was gold and the nominal value of gold was fixed. Gold has a purchasing power

which increases as the price level decreases and no unit owes funds to a bank because the bank owns gold. However today's world is not a gold standard world and the gold supply seems to be an awfully small basis upon which to rest the equilibrating tendencies of the economy.

G. The Reduction of the Keynesian Revolution to Banality

A fundamental shortcoming of the neoclassical synthesis is that it does not explain how an economy gets into the unemployment equilibrium trap from which the real balance effect ultimately effects a rescue. This short fall exists because of the neoclassical definition of the main problem of economic theory, to show that a decentralized market mechanism yields a coherent result, does not allow for disruptive dynamic processes. Neoclassical theory also assumes that the apparatus constructed to show how an economy can be coherent though decentralized can be applied to answer other questions, which neoclassical theory treats as subsidiary. In particular accumulation and observed differences in well-being among economies are explained by applying the theoretical constructs designed to show why an unplanned, decentralized market yields coherent results. Thus the doctrines that household demand brings forth the production of commodities is extended to the treatment of savings: household savings presumably draws forth investment. Questions as to how social arrangements create, extract and allocate a surplus are foreign to a neoclassical economist.

Within the neoclassical theory, fluctuations, disequilibrium, and financial trauma can only occur because of shocks or changes imposed from outside the system. A great deal of what happens in history is explained as the result of institutional failures in unique historical circumstances. The error of setting the pound at its pre-World War I parity was responsible for Britain's prolonged stagnation and the ineffectiveness of the Federal Reserve's response to financial trauma was the cause of the Great Depression. Neoclassical theory does not recognize that the assertion that the wrong value of the pound caused Britain's difficulties implies a limit to the domain within which the price system is effective and that the very existence of a Central Bank as a "lender

of last resort" presupposes that the market mechanism can get into "peculiar positions" in which "normal" financing is not available. If the market mechanism is self-adjusting it is only in a limited domain. From time to time it is self-disequilibrating.

Because the neoclassical synthesis does not allow for internal destabilizing forces and has no view of historic time it needs to explain the existence of persistent disequilibrium by processes which block the workings of the equilibrating mechanisms recognized within the system. In particular for the real balance effect to work it is necessary for an excess supply of labor to lead to a fall in money wages and prices. If, because of rigidities and imperfect markets, wages and price do not decline with excess supply, unemployment will persist. This makes the persistence of unemployment the result of perverse behavior by labor and in particular it is the result of a villain, trade unions. From arguments advanced by some "neoclassical" economists it seems as if trade unions are the only institutions that stand in the way of achieving permanent economic bliss. Note that the victims of unemployment cause unemployment to persist. The market mechanism not only yields a coherent result but it also yields retributive justice.

As the neoclassical synthesis mainly compares positions of equilibrium, the economy it models does not exist in the historic time. Because private financial commitments exist the burden of debt increases with wage and price deflations. A rise of the burden of debt when price deflation occurs tends to decrease debt financed private spending, i.e., investment. Falling investment is an initial reaction to price deflation, not until investment virtually disappears will the money/price level effect upon consumption tend to stabilize and then increase demand. Thus unemployment is likely to become worse before it gets

better and it may be worse for an uncomfortably long period. Unless we can identify who gets hurt and for how long, and are willing to say it is good and proper for those who get hurt to "pay the price," it is rather cavalier to assert that the neoclassical mechanism of price deflation should be allowed to operate. If an economy is not doing all that poorly, even if it is doing more poorly than the best possible, then the chance that things will get and stay worse if wage and price deflation occurs quite properly acts as a barrier to using price deflation as a conscious policy.

The real balance effect operates by means of the ratio of money to prices. The path from unemployment to full employment can be by way of increasing the numerator: increasing the relevant quantity of money. But the relevant quantity of money is either gold, fiat currency, or government debt (if the interest burden is not passed through). The "expansionary" effect upon money holders from ordinary bank balances is offset by a "constraining" effect upon the households and businesses which have borrowed from banks. Gold can only be obtained by mining or through the foreign exchanges. Mining and the earning of gold on the foreign exchanges have favorable effects upon employment in two ways: one, miners and the producers of exports have jobs, secondly, the numerator of the real balance effect increases. Fiat money creation can also have these effects if the government hires workers or buys goods and services. An increase in government debt that bears interest can also have a real balance effect, if prospective taxes to meet interest payments are not viewed with apprehension by potential taxpayers.

The money value of an existing gold stock can also be increased by revaluing the gold stock, i.e., by devaluation. Usually devaluation takes place in response

to pressures from the foreign exchange, although during the Great Depression the dollar price of gold was raised in an effort to expand the economy. However, in order to offset the possibility of capital gains from speculations in gold, ownerships of gold was first transferred to the government. Without any private ownership of gold the kicker to consumption that the real balance increase could have produced did not happen.

The neoclassical synthesis--as well as the Keynesian, Hansen and Hicks IS-LM formalizations--views income as a homogeneous glob. No distinction is made between wages and profits, although a distinction is made between gross and net incomes. In this way there is no need to inquire into how the different incomes arise and the effects upon income distribution of different ways of operating the economy. Furthermore because savings are supposedly related to income and interest, the question as to how economic and social institutions "force" or "extract" a surplus is not faced in the neoclassical synthesis.

Theory lends legitimacy to policy. The neoclassical synthesis puts blinders on policy in that it restricts the legitimate policy options to manipulating government spending and taxation and operating upon the money supply. Much controversy takes place about details of fiscal actions and whether the Federal Reserve should operate upon the money supply alone or whether it should consider interest rate effects in determining its behavior. To the neoclassical synthesis the pricing of capital-assets in markets where today's views about the future and today's financing possibilities are vital is not an issue for policy. The possibility that the instability so evident in our economy is due to the behavior of financial markets is foreign to the neoclassical synthesis.

The neoclassical synthesis holds out the promise that by manipulating monetary and fiscal policies a close approximation to full employment at stable

price can be first achieved and then sustained. The neoclassical synthesis enables economists to ignore industrial structure and income distribution. Prior to the "victory" of the Hansen and Hicks versions of Keynes it was widely held that the structure of industry and finance are at least in part responsible for instability. The neoclassical synthesis and various models based upon the standard interpretation of Keynes made this view obsolete. It became possible to be conservative on industrial organization and "liberal" on full employment policies.

As instability became evident and as inflation and unemployment coexisted during the late 1960's and 1970's, it became apparent that the grand neoclassical synthesis did not provide a guide to relevant policy. As usual instead of viewing the theory as falling short, scapegoats for the shortfalls of the performance of the economy and for the failures of policy were sought. Two "villains" were found: one is trade unions with their pressures for money wage increase and the second was the nature of government programs.

If we are to do better in policy, we have to dig deeper into the processes at work in our economy than the neoclassical synthesis permits.