THE FINANCIAL INSTABILITY HYPOTHESIS:
CAPITALIST PROCESSES AND THE BEHAVIOR OF THE ECONOMY

by

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I. Introduction

As Professor Kindleberger notes the Financial Instability Hypothesis\(^1\), which, flattering me, he calls the "Minsky Model", has a distinguished ancestry for "... it is a lineal descendent of a model, set out with personal variations, by a host of classical economists including John Stuart Mill, Alfred Marshall, Knut Wicksell and Irving Fisher" [Kindleberger, p. 15\(^7\)]. In addition Karl Marx and John Maynard Keynes belong on any list of great economists who held that the capitalist process is endogenously unstable\(^2\).

Although financial instability, even onto crises, is a fact of capitalist economic life, it is a non-event, something which just cannot happen, insofar as the standard body of economic


\(^2\) I would add Henry C. Simon of the University of Chicago to the list of important economists who held a "financial instability" perspective of the capitalist process. I have several reasons for this:

1. He was my teacher,
2. He has not been well served by his successors at the University of Chicago,
3. The statement, in Kindleberger's book that Simons' "... diagnosis of the tendency of the system toward unstable short term borrowing and repayment is right on target" (Kindleberger, p. 74), and
4. Simons' "Positive Program for Laissez-Faire" remains an essential starting point for policy analysis that looks towards a serious restructuring of capitalist institutions so that the three main flaws of capitalism - instability, inequality and inefficiency - can be attenuated, if not eliminated. See H. C. Simon, Economic Policy for a Free Society, Chicago, Ill. (1948).
theory is concerned. Disciplines can be classified in terms of the relative importance attached to research focusing on the literature of the discipline compared to research focusing on observation and experimentation. Even though economics claims to be of practical importance, it is now a discipline in which the discussion is largely "to the literature" rather than "to the world". Thus an obvious phenomena, such as the instability even into crisis of the financial system of capitalist economies, can be ignored in standard theory.

If standard theory were just an abstract game played by some who were moderately gifted in mathematics, such ignoring of observations would be but a minor nuisance. However standard theory becomes a guide to economic policy. The floundering of our capitalist economies in the 1970's reflects in good part the irrelevance of the theoretical framework that the members of our respective policy establishments carry with them when they advise and instruct our political masters. In part the malaise of capitalists countries is iatrogenic - the disease has been induced in the patient by physicians.

Thus standard theory won't do because it ignores essential characteristics and behavior of the economy. Therefore we, as a discipline, need to replace standard theory. Fortunately we do not have to start such a reconstruction of theory from square zero. As Professor Kindleberger emphasizes before theory became a victim of mathematics and observations were replaced by printouts economists recognized that financial crises occurred and set their minds to explaining why they took place and their effect upon system performance.

There are interpretations of The General Theory\(^3/\) that

differ from that which is in the standard literature\(^4\). One set of these interpretations argues that The General Theory points to, even if it does not fully state, an economic theory in which the behavior of a capitalist economy cannot be understood without a complete integration of what standard literature would consider the real economy with the financial system. To my mind this is the apt way of interpreting The General Theory and the relevant way of looking at our economy. Furthermore The General Theory points toward, even if it does not fully state, an economic theory in which the processes of a capitalist economy lead to the endogenous development of conditions conducive to a financial crisis. This interpretation of The General Theory as a prelude to business cycle theory means that Keynes provides us with the shoulders of a giant on which we can stand as we try to understand how capitalist economies behave.

\(^4\) Among the "key works" in the emerging post-Keynesian synthesis are:


P. Davidson, Money and the Real World, New York, John Wiley & Sons (1972)


This paper consists of nine sections:

I. Introduction
II. The financial instability hypothesis in relation to standard theory
III. Legacies from the past and endowments for the future
IV. Cash flows, present values, and cash kickers
V. Robust and fragile financial structures
VI. The generation of profits
VII. The turning points: upper and lower
VIII. The lender of last resort
IX. Conclusion

II. The financial instability hypothesis in relation to standard theory

During recent years there has been a discussion in the discipline as to the "true meaning" of Keynes. My contribution to the discussion is a little book in the Columbia Essays on the Great Economists⁵/. In that book I hold "... that The General Theory does embody a revolutionary change in economic theory, but that in the process of arriving at today's standard version of what Keynes was about the revolution was aborted".⁵/². I argued that "... the missing step in the standard Keynesian theory was the explicit consideration of capitalist finance within a cyclical and speculative context. Once capitalist finance is introduced and the development of cash flows (as stated in the interrelated balance sheets) during the various states of the economy are explicitly examined, then the full power of the revolutionary insights and the alternative frame of analysis that

Keynes developed becomes evident (Minsky, p. 129). The events since the book was written bear out the "virtue" of looking at capitalist economies from the perspective of their "financial" relations.

The standard interpretation of Keynes virtually ignores the analysis of financial markets and interrelation. It is strangely "ahistorical". One does not need to wholeheartedly embrace Thomas Kuhn's view that anomalies are the driving force behind scientific revolutions to recognize that the collapse of the American and World financial systems between 1929 and 1933 was a powerful factor tending to "concentrate the mind" of any one trying to explain the behavior of capitalist economies during the first years of the 1930's. The impact of the financial collapse on the formation of a "new theory" would be especially marked if the principal adventurer in the quest for new understanding was a political animal who was deeply involved in both the City and along "Corridors of Power". In order to understand the genesis of The General Theory we need to recognize that the financial collapse of 1929-33 took place as The General Theory was being formulated. It is necessary to accept that Keynes understood and appreciated the interactive process that Irving Fisher described so well.7

It is also worth noting that those who ascribe Keynes as being mainly concerned with labor market disequilibria in which real wages are "too high" seem unaware that the "persis-

6/ Thomas Kuhn, "The Structure of Scientific Revolutions" (1962)

tence" of unemployment was not the critical problem during the years of the formulation of *The General Theory*: the critical problem was that unemployment kept on getting worse even though money wages and prices were collapsing. If unemployment equilibrium occurred, it was only after the downward plunge was halted in 1933; up to then the critical development in employment was the unprecedented increase in unemployment.

The disequilibrium interpretation of Keynes, such as Edmond Malinvaud's⁸/, holds that the realized equilibrium is determined by a combination of market functions and constraints which lead to a rationing of jobs among workers. The disequilibrium approach takes a number of different forms: Fixed price producers, inflexible money wages, and a floor to possible interest rates are some of the forms that the constraint can take.

It has long been known that a "Walrasian" type simultaneous equilibrium can exhibit unemployment if the variables are limited by some constraint. However, this constrained or rationed equilibrium approach ignores the problem of the determinants of the behavior through time of a system in which various facets of today's behavior are determined by variables that reflect quite different time horizons.

Keynes divided the economic problem of a capitalist economy into two parts. The primary problem was the determinant of the various budget constraints. The secondary problem was the determination of the individual outputs. Once the primary problem is solved, the secondary problem can be described as the determination of an equilibrium within constraints or boundaries.

The proposition that emerges from the disequilibrium or rationing approach of Malinvaud is that Keynesian unemployment exists because money wages and output supply prices are too high for the effective demand that rules and that it persists because money wages and prices do not tend to fall with the rationing of "jobs" and "sales". A key proposition that emerges from Keynes' analysis of the relation between wage/price flexibility and unemployment, is that when inadequate aggregate demand leads to unemployment wage and price flexibility makes things worse. This proposition does not follow from the analyses of Malinvaud and the other "disequilibrium" theorists. This is so because the debt structure and the need of debtors to acquire cash to fulfill payment commitments due to debts nowhere appears in their analyses, and Keynes' dynamic process explicitly included the repercussions by way of financial interrelations.

In Malinvaud's work financing problems and financing relations are ignored. However, Keynes without finance is like Hamlet with the Prince; a theory of unemployment that does not integrate aggregate demand formation with the financing of investment and positions in capital assets cannot be called Keynesian. Furthermore any analysis which ignores finance cannot catch the essential cyclical features of an economy such as ours, where "Wall Street" exists and is important.

Malinvaud announces that he hopes "... to help a good deal to eliminate the mutual resentment that exists or has existed for a long time between two groups of economists. Those working on unemployment and therefore in a Keynesian framework feel suspicious towards those working in price theory because they more or less consciously feel that the latter (the price theorists) will tend to give a classical explanation of unemployment". Malinvaud, p. 35, Malinvaud does not explain why price
However it is not the price theorists' models in which unemployment results from constraint that causes resentment, it is the dismissal by price theorists of concerns with how the monetary and financial system actually operate that causes not resentment but "hopelessness" or "disdain". Price theorists refuse to acknowledge the possibility that there are endogenous disequilibrating forces at work within a capitalist economy because of the way in which the prices of capital assets are determined and how positions in capital assets and investment activity are financed.

It may help to recall a distinction that I believe Robert Solow once made between the abstraction called "an economy" and the historical reality called "this economy". The issue in theory is whether propositions relevant to this capitalist economy's development through time can be derived by studying an economy or by studying a capitalist economy. Obviously if the subject matter is financial crisis, the interrelations between financial crises and business cycles, or how finance affects system behaviour, economic theory to be relevant must examine a "capitalist economy".

To Malinvaud "the prototype economy consists of consumers, producers and an autonomous sector called government. It deals with only three commodities respectively called "goods", "labor", and "money". It concerns the operations during one given period, which is analysed independently of past and future periods" (Malinvaud, p. 38). Each item in the specification of "the prototype economy" by Malinvaud does violence to the Keynesian perceptions of what it is that has to be studied and what it is that has to be explained and understood. There is no way to develop theorems in the framework of Malinvaud's prototype model, which, after "minor" modifications, can be carried over and asserted to be valid for a capitalist economy with sophisti-
cated financial institutions. The very existence of capital-
assets, financial instruments, financial institutions and money
mean that we are dealing with inter-temporal relations, where
the time frame relative to the various decisions that determine
system behavior differ.

If the valuable members of the discipline who call
themselves price theorists want to turn their apparatus to the
study of the problems of a Capitalist economy they have to
abandon their standard operating procedure of modeling village
fair economies and turn their attention to the modeling of
economies with Wall Street. In such economies, financial instabi-
liity, as a fact which has occurred in a wide variety of specific
institutional frameworks, becomes a key attribute that has to
be explained. I would argue that no theory of the behavior of a
capitalist economy has merit unless it shows how the normal
functioning of a capitalist economy leads to conditions conducive
to a financial crisis. The various attempts by neo-classical
economists, whether of a monetarist or a more eclectic persuasion,
to explain instability hold instability to be the result of either
exogenous "policy" mistakes or institutional flows which can be

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9/ See Arrow - Hahn, "General Competitive Analysis", San Francisco
Holden/Day (1971) Chapter XIV.

10/ M. Friedman and A. Schwartz, "A Monetary History of the United
States 1867-1960", Princeton, New Jersey, Princeton University
Press; for the National Bureau of Economic Research recognizes
that financial crises and instability exists but argue that they
are due to either correctable institutional flaws or policy errors -
i.e. Friedman and Schwartz hold a devil or human error theory
of financial crises.
readily corrected. However, instability existed long before there was anything that would now be recognized as "economic policy" and with a wide variety of banking and financial institutions.

A model which links investment to the prices of capital assets, the prices of capital-assets and the pace of investment to the functioning of financial markets and the functioning of financial markets to the profit opportunities in financing business will readily explain financial instability. Persistent unemployment is explained as the equilibrium of an economy in which a financial crisis took place and was allowed to lead a debt deflation. Thus persistent unemployment, which Malinvaud tries to explain as a constrained equilibrium of a non-monetary economy, is the unconstrained, though transitory, equilibrium of a monetary economy with a history that includes a "recent" financial crisis and debt deflation.

The fundamental ingredients of a theory of the capitalist process are to be found in The General Theory; at least the General Theory identifies the important questions even if it does not have "all the answers". The lesson from Keynes is that to understand the behavior of a capitalist economy money cannot be introduced into the argument as an after thought. Nevertheless this is what Malinvaud and other price theorists do. The first step in developing a theory of the behavior of a capitalist economy is to model money and financial relations as an integral part of the determination of aggregate demand. One way to do this is to model the money or cash flows that are set up by the financial structure and the way income is distributed.

Malinvaud (op. cit.) introduces money as follows: "Let us consider an economy with r commodities (h = 1, 1, ... r), the last one being money; ..." [p. 187]. Arrow and Hahn (op.
in their Chapter 14 on The Keynesian Model write "Let the subscript "n" stand for money that we now regard as the non-interest-paying debt of some agency outside our formal system, say the government" \( p. 349 \). It is clear that "money" in Malinvaud and Arrow/Hahn has no relevant resemblance to the "money" of capitalist economies. Arrow and Hahn recognize that they are violating reality in their definition and offer apologies for the "primitive monetary ideas" they explore. Malinvaud does not articulate any recognition of the "herioc" nature of his abstractions, even as he offers his work as being "relevant" to the analysis of policy.

The cash flows that are set up by the way income is determined are wages and gross capital income. Gross capital income consists of the rents, interest, taxes, conventionally labeled profits, and some portion perhaps almost all of the "executive and overhead" wage bill of business. Kalecki showed us how gross capital income is related to investment, government spending, the foreign balance, consumption financed by profits and saving out of wage income. Kalecki enables us to understand how the cash flows, due to current output and sales revenues are determined, \(^{11/} \) that if large enough enable business to fulfill

\(^{11/} \) M. Kalecki, "Selected Essays on the Dynamics of the Capitalist Economy (1933-1970), Cambridge University Press (1971). In Chapter VII, The Determinants of Profits, pp. 78-92, he not only shows the well known result that "Gross Profits = Gross Investment + Capitalists' Consumption" \( p. 78 \) but also that "Gross Profits net of taxes = Gross Investment + Export Surplus + Budget Deficit - Workers' saving + Capitals' Consumption" \( p. 82 \).

The role of big government in sustaining profits during a "recession" so that business can validate debts was in Kalecki for all to see since an earlier version of Chapter VII "... appeared in the Economic Journal 1942..." \( p. \text{vii} \).
its payment commitments on financial instruments. Various linkages among business profits, the fulfillment of commitments on financial instruments, investment, and financing conditions exist. These linkages enable us to understand why conditions conducive to financial crises emerge from the normal functioning of a capitalist economy.

The Kalecki view of profit determination also shows why a full blown interactive debt deflation process has not occurred in the years since World War II. An understanding of capitalist financial relations also enables us to understand the importance of lender-of-last-resort operations and why the postwar economy, which has been free of a debt deflation, is now subject to chronic inflationary pressures.

The financial instability hypothesis is a variant of Keynesian theory that is linked closely to insights about profit formation that were most clearly stated by Kalecki.