



Department of  
Economics

To appear in

Inflation Through The Ages:

Economic, Social, Psychological and

Historical Aspects Ed. Nathan

Schmuckler. (Report of a Conference

held at Brooklyn College in 1980?)

Publisher and Publishing date as

yet unknown.

## Part 3

### Policy Issues

#### *Institutional Roots of American Inflation*

HYMAN P. MINSKY

Inflation is a movement of prices through historical time such that representative averages of prices increase. It always takes place in a specific evolving institutional setting. The acute and disturbing inflation that began in the United States in the middle of the 1960s is taking place in a capitalist economy with an institutional framework that, in large part, is a legacy of the first Roosevelt administration. Today's institutional set-up therefore reflects perceptions of the "economic problem" of some fifty years ago.

The reforms of 1933–36 were a response to the great contraction that began in 1929 and culminated in the thorough breakdown of the financial structure and the economy in the winter of 1933.<sup>1</sup> The institutional reforms of 1933–36 aimed to create an economic environment in which a huge decline in employment and a collapse of prices and asset values could not happen again. The record of income, employment, output prices, and asset values since 1936 shows that 1929–33 has not been repeated. There has not been a depression or serious price deflation since 1936. Furthermore acute inflation, in the absence of war, has become a problem for the United States only since the mid-1960s.<sup>2</sup>

It is necessary to examine the relations between the institutional environment and the performance of the economy to determine why there has not been a great depression with prolonged unemployment and serious declines in prices and asset values since World War II and why inflation became a problem only after the mid-1960s.

A large part of the institutional reforms of the 1930s was a response to a contemporary view that the Great Depression was a result of uncontrolled price deflation that made an already large burden of debt intolerable. Two monumental studies under the auspices of the Twentieth Century Fund — *The Internal Debts of the United States* (edited by Evans Clark; 1933) and *Debts and Recovery 1929 to 1937* (written by A. G. Hart) — lay out an overindebtedness view of the origins of the great contraction and a burden-of-debt explanation of the Depression's depth and duration.<sup>3</sup>

The proposition that the combination of price deflation and an excessive debt burden was responsible for the severity and duration of the Great Depression is the guide to the reforms of the 1930s. The reforms were carried through in the absence of a theory of aggregate demand. Keynes's *The General Theory of Employment Interest and Money*, which sets out the theory of aggregate demand that still underlies much of the analysis of the performance of the economy as a whole, was published in 1936 (the preface is dated December 1935).<sup>4</sup> Keynes's ideas and analysis did not filter through to the collective mind of the discipline until several years passed and it took several decades for policy makers consciously to apply the ideas. Furthermore, Keynes's revolution became part of the intellectual baggage of advisers and policy makers in a corrupt Hicks-Hansen form.<sup>5</sup> Several generations of

economists dealing with economic theory ignored those parts of Keynes's *General Theory* which dealt with "The City" and financing relations, i.e., the specific institutional framework within which Keynes's theory was relevant. As a result of these intellectual blinders, policy makers ignored banking and financing interrelations when they acted on the precepts of simplified (if not vulgarized) Keynesianism. Keynes's critique of capitalism because of the instability due to capitalist financial relations was ignored as Keynes was transformed into the simpleminded and banal prescriptions for fiscal policy that passes for "Keynesian" economics.<sup>6</sup>

The core of *The General Theory* is an analysis of the relations between investment, capital-asset ownership, and financing. Banks finance business. The liabilities of banks, including money in the form of currency and demand deposits, created as banks engage in financing. Both investment and the liability structures of the owners and users of capital-assets are related to money. In particular, the finance available from banks and other institutions affects the price level of capital-assets. Such financing creates liabilities to banks and financial institutions which are commitments to pay money on a schedule determined by outstanding contracts. Thus Keynes's integration of money and the pricing of capital-assets provides a theoretical foundation for a burden-of-debt analysis of the cyclical behavior of capitalism. Both the monetarist and the standard Keynesian version of today's standard theory ignore the relations between system performance, which generates the cash flows that are available to meet payment commitments, and the payment commitments in the debt structure.

During the first days of the New Deal, an attempt was made to use the quantity theory of money to raise prices. The policy instrument was the price of gold; by raising the price of gold in dollars the value of that which many then and many now think of as "really" money increased. This program was deemed a failure; it did not produce quick enough results for the "crisis" atmosphere. Once the the policy of increasing the money supply was deemed a failure and in the absence of a theory of aggregate demand, policy turned to preventing price declines and inducing price increases by intervening in particular markets.

Agricultural price supports, oil-pumping allotments, regulation of trucking, power, and communication, and doctrines of "fair" competition (NRA) and fair "labor standards" became the backbone of policy. In particular a view that market power was benign, for it made for price stability and "fair" wages, undermined the "in principle" commitment to competitive markets. The acceptance of corporations big enough to have market power as economically desirable was a keystone of the first (NRA) New Deal.

Only briefly, in the stillborn third New Deal of 1938, was the proposition advanced that market power, and thus the bigness that leads to market power, is responsible for price increases that can retard expansion. The administered-price theory of Gardner Means, to the effect that market power leads to an absorption of a stimulus to aggregate demand by price increases, is readily transformed into a theory that the exercise of market power leads to inflationary pressures in an economy with stabilized or growing aggregate demand.<sup>7</sup> A combination of a realistic view that market power if available will be used and a sophisticated view of the banking process, which makes the supply of financing responsive to the demand for financing, will go far toward a theory of inflation that rests upon the structure of industry.

A second aspect of the Roosevelt reforms dealt with the debt structure and financial institutions. Because the widespread bankruptcies and declines of financial values made many "insecure" for their old age, the development of Social Security can be interpreted as a financial reform. More explicit financial reforms include deposit insurance, the Securities and Exchange Commission, the fully amortized and government guaranteed home mortgage, the outlawing of interest on demand deposits, and the attempts to simplify financial structures.

A third aspect of the institutional changes that date from Roosevelt is the huge increase in the relative size of the federal government as a purchaser of goods and services, source of transfer payments, regulator, and taxer.

During World War II, the government ran a huge deficit. As a result, by the end of the war an enormous government debt existed. Government debt was the major asset in the portfolio of banks. In addition, because of the profitability of wartime business and the limited private investment opportunities in a regime of wartime controls, at the end of World War II business debt was much reduced and business was a large-scale owner of government debt. The simple liability structure and simple set of financial institutions that had been advocated in the 1930s by reformers like Henry Simons had been inadvertently achieved.<sup>8</sup> A financial structure such as ruled in 1946 is robust in that significant increases in interest rates will not raise the carrying costs of assets for business (business being largely debt free) and the failure of a particular large financial organization will not trigger a wave of failures.

Even though there was a great potential for lending in the banking system and even though business was so liquid that it could finance capital-asset acquisitions out of accumulated cash and near cash, no sustained inflation by the standards of the 1970s took place in the late 40s and 50s. Instead of a quick rush to using the liquidity derived from the war, there was, after World War II, a 20-year period of on the whole tranquil progress. These 20 years between 1946 and 1966 constitute a "golden age" of capitalism in the United States and in the other advanced capitalist economies.

Our current inflation dates from the mid-1960s. The transition from the generally tranquil progress of 1946-66 to the turbulent cyclical inflation cum quasi stagnation of 1967 to date needs to be explained. No obvious, legislated institutional change occurred that explains the change in behavior. Of course, a great deal in history can be used for a special-circumstances explanation of the changes: divine wrath for the assassinations of the 1960s, deserved punishment for electing Nixon, the war in Vietnam, and the hubris of Johnson's Great Society are all candidates for special-circumstances "explanations." These explanations neither explain the persistence of instability into the 80s nor offer any handles by which we can do better in the future.

Although there were no striking legislated changes in the middle 1960s, over the postwar period there were cumulative changes in the portfolios of households, businesses, and banks which changed the relations between the payment commitments on debts and the income and cash in hand of these various groupings. Over the years 1950-67 a marked transformation in the financial structure took place. The investment boom of the mid-1960s and the conglomerate movement among corporations of the same period affected the liability structure of business. By the mid-1960s the financial structure of the United States

was "ready" for a financial crisis. In the past, financial crises had ushered in deep depressions.<sup>9</sup>

The Federal Reserve "fights" bursts of inflation by attempting to constrain the rate of growth of bank deposit liabilities. Banks make their profits by acquiring earning assets, and they finance their position in earning assets by a variety of liabilities. Ever since the late 50s and early 60s, when the excess ability to finance stored in government bonds during the war years was pretty much used up, banks have reacted to Federal Reserve constraints on their reserve base by innovating and developing liabilities which economize on reserves. In addition, even as banks "avoid" Federal Reserve constraints, innovations by nonbank financial institutions and the emergence of various types of open market paper in response to perceived profit opportunities make the supply of finance responsive to the demand for finance.<sup>10</sup>

One way the institutional change in finance can be measured is by examining the change in the way banks have made positions over the post-World War II era. In the immediate post-World War II era banks were mainly holders of Treasury debt. If operations led to a cash shortage or cash surplus the organization would buy or sell short-term Treasury bills. For giant banks by the middle 1950s, if the shortage or surplus of cash was deemed to be transitory, the bank would lend or withdraw a loan from the dealers in Treasury debt. Furthermore, by the late 1950s the large banks were lending and borrowing federal funds: the federal funds market was the position-making instrument for the giant banks even as the smaller banks still used Treasury bills to make positions.<sup>11</sup>

With the introduction of the marketable certificate of deposit in 1960, the flexibility of bank position-making activity increased. A bank that was short of funds could now raise funds by placing such negotiable certificates. In the first years after 1960, access to the certificate-of-deposit market was pretty much restricted to the very largest banks. As the market grew and matured, almost all banks gained access to the negotiable "CD" market.

The crunch of 1966 saw large banks making positions by borrowing from their overseas affiliates. The growth of the Eurodollar market and its validation by the Federal Reserve in the Franklin National crisis in 1974-75 has led to an increase in the integration of the international banking system. Access to the Eurodollar market has not, however, been generalized to all banks; it still is limited to larger banks.

The evolution has been toward complexity; the bank executive responsible for position making has many more options in 1980 than in earlier years. Position making can take the form of selling off excess Treasury debt, borrowing federal funds, marketing certificates of deposit, issuing commercial paper, borrowing in the Eurodollar market, and executing repurchase agreements using virtually any asset in the portfolio as the instrument first sold and then bought back. The change has been characterized as a shift to "liability management," although in truth banks have always "managed" both sides of their balance sheet.

In a system of complex banks, the link between the "reserves" made available by the central bank and the "credit" accommodations made available by the banking system is much attenuated. There is a schizophrenic aspect to monetary policy, insofar as policy is made on the basis of simple linear relations between reserves and money even as policy makers recognize the complex system of bank and nonbank channels through which the supply of credit responds to changing

executing →

demands for credit. The complex structure makes the relation between the reserves and credit available a variable that is affected by the ongoing institutional change.

Monetary constraint was effective in 1966, 1969-70, 1974-75, and 1980 in reducing the rate of inflation. In each case, the slowdown in the rate of inflation was accompanied by a significant rise in unemployment. Because of the earlier increases in expenditures on the war in Vietnam there was no "official" recession in 1966. The three other inflations were ended with an official recession.

Each slowdown or recession since the mid-1960s was preceded by a sharp run-up of interest rates and a sharp increase in short-term borrowing. The rise in interest rates and the greater proportion of short-term borrowing increased payment commitments on debts relative to the profits of business and the income from long-term financial assets in portfolios.

A decision to order investment output depends upon the calculation of future profits, which each enterprise does in its own way. Existing capital-assets, which are a legacy of the past and which will be bestowed on the future, are the visible aspects of the productive capacity of an economy. They have a price derived from their expected profits. Newly ordered investment goods will have to yield at least as much in proportion to their cost as the existing capital-assets are earning in proportion to their price. The prices of capital-assets relative to those of investment output along with financing terms yield the demand for investment goods.

A financial contract is an exchange of money now for money later. The costs to "borrowers" of financial contracts are the stream of money-later payments. As the streams of money-later payments have an infinite variety of possible time shapes, the various patterns are most readily compared by using the common measure of an interest or discount rate to equate the money-now and the money-later parts of the exchange. The use of an interest rate as a shorthand description of the terms on a financial contract must never obscure the basic relation in a financial contract, which is the exchange of money now for more or less assured money in the future.

The financial system "finances" both production and the carrying of assets. When production is financed the interest payments are costs, just like those of labor and materials, which need to be recovered in output prices. The supply price of outputs rises when interest rates rise. The size of the supply price effect varies with the "gestation" period of the output being produced: it is trivial for quickly produced outputs like most consumer goods and it is very important for outputs with long gestation periods, like nuclear power plants or other investment outputs.

Capital-asset ownership needs to be financed; the debt financing of capital-asset ownership allocates part of the quasi rents that capital-assets are expected to yield to the money-later commitments on debts. When financing costs rise so that more money later must be "promised" for a given amount of money now, the current price of all existing, inherited money-later for money-now contracts falls. But the stock of capital-assets now being used in production is a legacy of past money-now-money-later exchanges that took the form of paying for the production of particular capital-assets. Such capital-assets have current values only as they are expected to yield profits. When the financing costs for holding capital-assets rise, the current value of these inherited

capital-assets falls; capital-asset prices fall when interest rates rise.

In principle, an investment decision involves a choice between ordering the production of a new item or purchasing an item from the stock of capital-assets. A rise in interest rates lowers the price of items in the stock of capital-assets even as it raises the supply price of investment output. A rise in interest rates therefore tends to decrease investment unless it is accompanied by a rise in the expected quasi rents that offset the effect of the rise in interest rates. The rise in expected quasi rents can come from two sources: one, substitution of a "permanent prosperity" expectation for a cyclical expectation; two, expected inflation.

Investment in process generates an inelastic demand for financing that "shifts" outward with rising costs of the inputs to producing investment goods and a rising volume of investment in the "pipeline." If the rate of increase of available financing falls short of the rate of increase of the demand for financing due to the increased volume and costs of investment in the pipeline, an explosive increase in interest rates can occur.

Debts not only finance investment output and inputs in the production pipeline, they also finance positions in capital-assets and financial assets. Debt financing of positions in financial assets by individuals is exemplified by margin financing of securities; savings banks, life insurance companies, etc., are institutions that debt finance positions in financial instruments. Any rise in interest rates increases the carrying costs of debts even as it lowers the market value of assets that are in position.

The greater the proportion of debt financing of investment and the greater the proportion of debt financing of positions in capital-assets and financial assets, the more vulnerable the economy is to a rise in interest rates, because a rise in interest rates, by lowering the value of assets and increasing the payment commitments on debts, decreases the margins of safety in asset values and cash flows that makes debt financing viable. The evolution of financial institutions and usages during the on the whole tranquil expansion of 1946-66 transformed the financial structure so that its vulnerability to increases in interest rates increased, even as the institutional arrangements and the structural changes in payment relations, by increasing the likelihood that a shortfall of the rate of increase of available finance relative to the rate of increase of the demand for finance would take place, increased the volatility of interest rates. By the middle 60s the situation was ripe for sharper changes in interest rates, investment and income than hitherto in the postwar period.

Economic policy labors under the handicap that the economic theory that guides policy ignores financing relations. The simple-minded proposition of standard theory is that if the rise in the price level is too great, then the Federal Reserve must decrease the rate of growth of the money supply. This proposition considers the impact of this prescription on payment commitments on debts, the supply prices of output, and the market valuation of capital-assets as irrelevant in determining system behavior. Once the financial system is convoluted and complex, however, the prescribed behavior of the Federal Reserve will lead to a spate of threatened and realized bankruptcies of financial institutions, a collapse of value of debt-financed assets, and a rapid decline in investment. These developments in turn trigger a rush to liquidity which takes the form of a sharp liquidation of inventories.

Thus whether monetary policy actions "pinch off" an expansion or lead to a sharp decline in asset values and investment that threatens an interactive debt deflation depends upon the complexity of institutional arrangements and the structure of liabilities of households, firms, and financial institutions. The evolution of financial institutions and structures from the simple set-up of 1946 to today can be divided into two parts. During the first part, from the war's end until the early 60s, the dominant developments were related to running off and absorbing the extremely liquid position inherited from the war; during the second part, which can be dated from the credit crunch of 1966, new instruments and new institutions dominated in the evolution of financial practices. In both periods, the rate of increase in financing available to business through banks exceeded that made available by central bank policy actions affecting reserves. The first phase, which saw the working off of wartime liquidity was mainly a period of financial market tranquility. During the second period, the new instruments and institutions increased the articulation of receipts, commitments, and refinancing needed for contract fulfillment; financial markets showed ever-increasing volatility in both interest rates and portfolio structures. The increased volatility in financial markets led to increased volatility of output.

The evolution of financial institutions and practices after World War II has taken place in the context of a federal government that is a much bigger proportion of the economy than was true in earlier epochs. There now are a variety of government agencies and a Federal Reserve system that react strongly to a decline in employment or a threat of financial instability. The size of government, active government policy and Federal Reserve lender-of-last-resort interventions have combined to prevent a deep depression in the years since World War II, and most particularly in the years since 1966, when threats of financial instability became regularly recurring phenomena. But the way "big government" and "lender-of-last-resort interventions" combine to brake a threatened deep recession and then to generate a recovery imparts a strong inflationary bias to the economy.

The financial structure rests upon two pillars: one, the flow of income to business firms and households; the other, the price level of assets. In our modern society these pillars have been reinforced by government. The flow of income to business firms and households is now supported by the stabilization of profits that results from big government. The prices of assets are stabilized when the Federal Reserve, acting as the lender of last resort, exchanges its own liabilities for assets, either by outright purchasing or by accepting assets as collateral.

In a capitalist economy, the most important income flows for the fulfillment of the private commitments of the debt structure are gross profits after taxes (what Keynes, following Marshall, called quasi rents). If we abstract from details, business profits equals investment plus the government deficit.<sup>12</sup> A big government that is contracyclically active by a combination of automatic fiscal reactions and apt discretionary fiscal initiatives will generate a large enough deficit when investment (and therefore employment) declines so that profits in the aggregate are maintained.

Employment is offered by business as business believes it will make profits from using labor. Government deficits by preventing a free fall of business profits, such as took place after 1929, assure that private



employment will be stabilized. Part of the debt structure consists of household debts. With employment "essentially stabilized" because profits are stabilized and with transfer payments sustaining household incomes even as employment falls, the ability of households to "carry" their part of the private debt structure is stabilized during recessions.

In a complex convoluted financial structure, where banks are "managing" their liabilities and there are a wide variety of extra-bank financing channels, an attempt to bring inflation under control by constraining the rate of growth of the reserve base in the face of strong demand for financing from investment in process and holders of assets expected to appreciate at a high rate, will result in a sharp run-up of "interest rates." Interest rates, like a temperature, will "spike." Such a spike leads to a sharp break in investment and places a premium on being liquid to take advantage of the high interest rates on short-term money instruments. One way to become liquid is to sell out positions in assets which are being held for appreciation; a second is by selling off inventories.

As long as the expected price appreciation of inventories and other assets (common stocks, gold, silver, houses, and so on) exceeds the short-term rate of interest by a good margin, holding inventories and assets are "good" bets. Once the short-term rates of interest spikes so that interest rates approach or exceed the expected rate of price appreciation, then liquidity, in the form of short-term interest-earning assets, becomes a "better" bet.

The spiked interest rates lead to a desire to liquidate inventories and positions in assets: a 25 percent cost of money "concentrates the mind" of those who borrow to finance asset holdings of whatever kind, especially assets that yield no cash flow. The spending side of big government, especially the income maintenance programs, and the maintenance of aggregate profits through the deficit which prevents a free fall of unemployment, make it possible to liquidate inventories. Inventory liquidation means that a sharp fall in output and employment takes place, but this of course brings the government's automatic and, with a lag, discretionary fiscal stabilizers into play.

The attempt to liquidate positions in assets leads to a sharp fall in the value of assets that were being held for appreciation. This may be sufficient to compromise the solvency of the units that own the assets and the units that financed the speculation. In the real estate investment trust crisis of 1974-75 and the Hunt/Bache crisis of 1980, the Federal Reserve as a lender of last resort seems to have intervened to assure the solvency of threatened financial institutions.

The government's deficit sustains and even increases gross profits (as in 1975) as output falls. Higher total profits with a smaller output implies that the mark-up per unit of output increases. Not even the most "optimistic" believer in the efficacy of unemployment as a device to halt wage increases or bring about declines in wages holds that the reaction is immediate, i.e., that a tiny rise in unemployment for a very short interval will bring about a large decline in either money wages or the rate of increase in money wages. Therefore a rise in mark-ups will take place even as the money wage out-of-pocket costs do not fall, i.e., supply prices rise. Inflation will continue even as unemployment increases as long as profits are sustained. Sustained profits constrain the rise in unemployment, which means that wages do not fall and scheduled increases take place. As sustained profits are translated into higher mark-ups on unit costs that do not fall, prices continue to

increase.

Ever since the credit crunch of 1966 a downturn in income and employment has been ushered in by a financial disturbance. In each case — the credit crunch of 1966, the Penn Central-Chrysler liquidity squeeze of 1969–70, the Franklin National-REIT debacles of 1974–75, and the Hunt/Bache/Chrysler/First of Pennsylvania fiascoes of 1980 — the Federal Reserve and cooperating private and public financial organizations intervened to prevent a “local” embarrassment from becoming a generalized financial crisis.

Each “financial crisis” centered upon a “run” or a “refinancing problem” for some financial institution or usage. In 1966 the use of certificates of deposits by commercial banks, in 1969–70 open market commercial paper, in 1974–75 the Eurodollar market and the short-term financing of REITs, and in 1979–80 the financing of investment bankers by commercial banks were the focal points of the crisis. In each case the Federal Reserve, other government bodies, and private financial institutions intervened to refinance the particular market or institution that stood on the threshold of bankruptcy. This lender-of-last-resort intervention legitimized the instruments and institutions on the brink of default or bankruptcy. As a result of the protection extended to the instrument or institution threatened in the crisis, the instrument or institution survived and was available to finance activity or asset holdings in the subsequent expansion. Therefore each expansion started with a more complex financial structure than the preceding expansions, and during the expansion new complexities were added. Thus a progression of increasing fragility in the financial structure takes place. This progression is associated with higher rates of inflation.

During the sharp downturn of the (successful) inventory liquidation that follows a crisis, the federal government runs a large deficit. This deficit increases the supply of government debt to financial markets. The inventory liquidation decreases bank borrowing by business. Furthermore, the drop in long-term interest rates increases the floating of long-term securities by business, the proceeds of which are used to pay off short-term bank and open market debt. Under these circumstances the commercial banks, whose aggregate ability to hold assets is continuously enhanced by the Federal Reserve’s actions, acquire government debt, both newly issued and from the market, at a rapid rate. This change, in which banks increase the proportion of government debt in their portfolios, means that banks store financing which will be available for use during the subsequent expansions.

Once the downturn of income is halted by the combined effects of central bank intervention and the government deficit, the sustained profit of the low-income phase, along with the availability of financing from the “liquid” banking systems and newly legitimized financial markets, leads to a recovery and expansion. At first the recovery may be sufficiently unsatisfactory so that it is labeled a stagflation, but quite soon the inflationary boom returns. Beginning with the “credit crunch or financial crisis” as the “peak” we have had three complete cycles of this type: 1966–1969/70, 1969/70–1974/75 and 1974/75–1980.

Thus our inflation has its roots in the institutional structure that has succeeded in preventing a debt deflation. However, much of the detailed intervention into particular markets and the soft policies with respect to market power, mainly corporate but also trade union, that were accepted as part of a structure to prevent deep depressions in the

1974/75 → 5  
7

1930s are quite irrelevant to the way in which deep depressions are in fact prevented in a big-government capitalism. As long as government will run deficits large enough to sustain profits whenever the economy sinks into a recession, a deep depression, such as took place between 1929 and 1933 cannot occur. In the context of present institutions, however, especially the permissive and supportive posture of the authorities with respect to financial innovations that facilitate external financing, successful antidepression intervention leads, with a lag, to inflation such as has plagued our economy since the mid-60s.

The inflation problem cannot be resolved by adjusting the management of monetary and fiscal policy. Technical progress, within a competitive market structure in which money wages are fixed, brings downward pressure on individual prices. A full-employment economy, where full employment is guaranteed by government employment programs for both youth and adults, in the context of competitive markets and stable money wages, is a possible offset to the inflationary pressures which follow from the way threats of a deep depression are offset. If in addition the financial structure and the tax laws are reformed to tilt the economy toward simple equity-based liability structures, the threat of financial crises can be decreased. Under these circumstances, an economy with a government big enough to stabilize profits will not be as "inflation prone" as at present, for the financial complexity that forces lender-of-last-resort interventions will be diminished. A necessary condition for the reestablishment of the tranquil progress that characterized 1946–65 is the reestablishment of a robust financial structure. The open question is "How can this be accomplished?"

### Notes

1. Milton Friedman and Anna Jacobson Schwartz, *The Great Contraction 1929–1933* (Princeton, N.J., 1965), gives a view of the collapse that puts too much weight on a simplistic monetary explanation of the collapse. Lester C. Chandler, *America's Greatest Depression 1925–1941* (New York, 1970), is a more balanced view of the Great Depression. John Kenneth Galbraith, *The Great Crash 1929* (Cambridge, Mass., Boston, 1961), is an entertaining view of financial excesses that is not tied down to any precise analytical framework. R. A. Gordon, *Economic Instability and Growth: The American Record* (New York, 1974), is a balanced presentation of the cyclical experience of the era under consideration.
2. With 1967 = 100, the consumer price index was 80.2 in 1955 and 217.4 in 1979. In the 12 years 1955–67 consumer price rose 24.7 percent (1.86 percent per year compounded). In the 12 years 1967–79, consumer prices rose 117.4 percent (6.68 percent per year compounded).
3. Evans Clark, *The Internal Debts of the United States* (New York, 1933); Albert Gailand Hart, *Debts and Recovery* (New York, 1938).
4. John Maynard Keynes, *The General Theory of Employment, Interest, and Money* (New York, 1936).
5. J. R. Hicks, "Mr. Keynes and the Classics: A Suggested Interpretation," *Econometrica* 5 (1937): 147–59. Alvin Hansen, *Monetary Theory and Fiscal Policy* (New York, 1949).
6. Hyman P. Minsky, *John Maynard Keynes* (New York, 1975).
7. Gardner C. Means, *Industrial Prices and Their Relative Inflexibility*, Senate Document No. 13, 74th Cong., 1st sess. (January 1935).
8. Henry C. Simons, *Economic Policy for a Free Society* (Chicago, 1948).
9. No data are presented in this paper. For supporting data see H. P. Minsky, "Financial Resources in a Fragile Financial Environment," *Challenge* 18 (July-

August 1975): 6-13; "The Federal Reserve 'Between a Rock and a Hard Place,'" *Challenge* 23 (May-June 1980): 30-36; "Finance and Profits: The Changing Nature of American Business Cycles: Joint Economic Committee of the United States, Compendium," *Business Cycle and Public Policy 1929-79*, forthcoming. Henry Kaufman, James MacKean, and Daniel Foster, *Restoring Corporate Balance Sheets: An Urgent Challenge* (New York, Salomon Brothers, Bond Market Research, July 21, 1980).

10. H. P. Minsky, "Central Banking and Money Market Changes," *Quarterly Journal of Economics* 71 (1957): 171-82.

11. *Ibid.*

12. M. Kalecki, *Selected Essays on the Dynamics of the Capitalist Economy 1933-70* (Cambridge, 1971).