

—A Special Monograph By—

**The
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**THE ESCALATION
IN DEBT AND
DISINFLATION:
PRELUDE TO
FINANCIAL MANIA
AND CRASH?**

productivity increases, suggesting that the country is aging and following Britain into economic senility a century later.

Secondly, the prospect of shocks to the world economy has in no way dimmed. The energy picture is still uncertain, given the political difficulties and the possibilities of war in the Middle East and in North Africa. Political upheavals in Central America and South Africa cannot be excluded. Alexandre Lamfalussy of the Bank for International Settlements notes that the financial systems of the main Western industrial countries are going through not one, but in some cases as many as four, interconnected revolutionary processes: disinflation, internationalization, innovation in financial instruments, and deregulation, in each of which, he claims, economic theory can do little to guide the world. Displacements or autonomous shocks to the system are inevitable, and are likely to lead to destabilizing feedbacks. Finally, there are possible shocks from terrorism and nuclear disaster, on which I hesitate to comment.

Third, there are indications of rising national preoccupation at the expense of international concerns -- protectionism in trade and declining foreign aid while domestic spending is skimmed because of budget constraints. The present Republican Administration is strongly opposed to protectionism, but is pushed in that direction by parochial interests.

Where the balance of the three positive and three negative prospects comes out, it is difficult and probably impossible to judge. To forecast confidently on the basis of some econometric model calls for more faith than I am able to muster. On balance, I suspect that the good side -- lack of pressure from a foreign-exchange ratchet, initiatives in coordinating macro-economic policy and stabilizing exchange rates, plus awareness of the need for crisis management -- outweighs the negatives of a weakening United States economy, the prospect of continued shocks, and increasing preoccupation with local and national interest at the expense of the international interest. That highly tentative conclusion, however, may merely reflect an inherently optimistic temperament that comes from a eupeptic digestive system inherited from my forebears.

STABILIZING AN UNSTABLE ECONOMY - EXPERIENCE AND PROSPECTS

Hyman P. Minsky

The review of Irvine Sprague's "Bailout: An Insider's Account of Bank Failures and Rescues" in the Wall Street Journal of September 18 notes that the fundamental factor in the federal bank regulators' decisions about bailouts - the refinancing of a threatened institution or market - is fear. The reviewer, Monica Langley, cites Mr. Sprague as writing, "What were the real reasons for doing the four bailouts? Simply put, we were afraid not to."

When push came to shove, the FDIC and the Federal Reserve intervened to protect the value of the liabilities of banks, other financial institutions, and selected non-financial institutions, such as Lockheed, Chrysler, New York City and the Hunt brothers, because they knew not the consequences of not doing so. They chose the devil they knew - which was to refinance threatened institutions, infuse high-powered money, and risk inflation - rather than face the unknown - which was to let such institutions fail, allow their underlying assets and their liabilities to find their market value, and risk the consequences which might well be a serious recession.

The unknown is irrational. Sprague and his colleagues were rational men making decisions in an irrational world. A world is irrational to decision-makers when the theory they accept does not explain what happens and, therefore, does not offer policymakers reasonably argued scenarios about the consequences of different actions. Decisions that are taken because of fear of the irrational do not reflect an understanding of what is at issue. Inept behavior is especially likely if the consequences of actions are not apparent immediately and if institutional evolution takes place, for evolution makes even the recent past a poor guide to the future.

We would be better served if decision makers are armed with knowledge that spells out how situations, such as those in which fear forces the banking authorities to intervene, arise and the consequences for the economy of alternative programs, including not intervening. Mainstream economics does not help because systemic situations that force interventions, such as the review of Sprague cites, are not possible system states within standard theory.

The most important economic event of the forty years since World War II is something that has not happened: there has not been a great depression. Not having a serious depression in forty years is a substantial improvement over prior history. Before World War II, serious depressions with critical financial crises were comparatively frequent. After all, even if we ignore the depression after World War I, only 26 years separated 1907 and 1933.

The absence of a great depression is the first prior I want to introduce into our argument. An implication of this first prior is that some things were right about the economy after 1946 that were absent from the economy as it was before 1933.

We have just lived through the Chernobyl incident. We now know better than ever before that a nuclear reactor is an unstable system which is constrained to apparent stable behavior by controls and interventions. Disasters occur when the controls and constraints are overwhelmed by disequilibrating forces that are endogenous to the system. This can happen by 1) misadventure, 2) controls and interventions becoming less effective and responsive, and 3) the disequilibrating forces becoming more powerful. Furthermore, we now know that the complex system that is a nuclear reactor changes as it operates. Apparently as the system matures the likelihood of instability increases.

A second prior for our argument is that the complex integrated financial, production, and distribution system that is a modern capitalist economy is endogenously unstable. A semblance of stability (constrained instability) is achieved through constraints and interventions. Furthermore, over a period of apparently stable behavior the underlying financial conditions evolve so that the likelihood of instability increases.

A nuclear reactor of the Chernobyl type, rather than a damped pendulum or a bridge, is the appropriate physical analogy for a modern capitalist economy. A difference between a nuclear reactor and an economy is in the time frame of the disasters that may occur. Whereas a nuclear reactor's time frame may be measured in fractions of a second, it may take several years for an economic disaster to unfold. Well-nigh three-and-a-half years elapsed between the proximate triggering event, the stock market crash of October 1929, and the full collapse of the banking system in March 1933.

An immediate corollary of the endogenous instability of capitalism is that a totally free-market modern capitalist economy is economically and politically impossible, for in such an economy financial disasters and economic depressions will frequently occur.

The effort to get money and finance (banking) right is a major thread in the economic history of the United States. Monetary and banking crises, as well depressions and other systemic malfunctions that were imputed to money going wrong, have been a regular feature of the American economy. The various great monetary reforms, such as The National Banking Act, The Federal Reserve Act, and the banking and financial acts of the 1930s, were responses to perceived serious malfunctioning of the banking and financial system and the economy. These reforms reflected the prevalent diagnosis of the cause of the malfunctioning as well as the weight of political pressures.

Each reform put an institutional structure and a system of regulation in place. To the extent that the structural reforms and regulations were effective they constrained activities that were attractive to at least some players: some profit opportunities were blocked. Such blocked profit opportunities induce market participants to innovate, to develop institutions and instruments that evade or avoid the constraint. Regulatory systems tend to break down, especially after a run of good times during which the disasters, which the regulatory system was designed to prevent or contain, do not occur.

A third prior for our argument is that any regulatory and intervention system will lose its effectiveness over time. For effectiveness to be sustained the regulatory and intervention systems need to be modernized at intervals to allow for the effects of innovative financial developments. The operations of a central banking structure must be consistent with current financial market practices.

Keynes' General Theory was published in 1936, just 50 years ago and just a decade before the post-war era began. Two decades ago we were living in "The Age of Keynes". A dominant view was that the wonders of demand management were sufficient to assure permanent prosperity. This "Age" was very short-lived. The success in avoiding a Great Depression led to inflation, which eroded the credence of what was taken to be Keynesian theory.

In spite of the disdain in which many economists now hold Keynesian analysis, the research program that follows from Keynes' approach is of great relevance for our times.

All economists and analysts who believe that the financial, production and consumption aspects of the economy make an integrated whole, and who believe that the behavior and evolution of financial institutions are vital determinants of the course of the economy, are working in the spirit of Keynes. However, financial Keynesianism, which takes this position, is unlike traditional Keynesianism which dominated

policy for most of the post-war era and which is still the way Keynes' argument is presented in text books. The primary focus in financial Keynesianism is not on the determination of GNP but on the determinants of gross profits after taxes, and the relations between income flows and financial commitments.

The relevance of financial Keynesianism for understanding our economy is the fourth prior for my remarks.

Almost every day the news carries reports or rumors of great financial or economic calamities. For example, on September 17 the press reported that rumors were rife that the once great Bank of America was about to declare bankruptcy, or that a takeover or change in management was in the offing. Not only did such a rumor arise but it was creditable, for repercussions of disinflation had undoubtedly undermined asset values in many bank portfolios. Well-publicized losses made many market participants believe that the Bank of America was a likely place for the taut chain of financial relations to break.

No matter how exalted a bank may have been, we all know that if assets were marked to market, the net worth of many of the giants of international banking would disappear. Nevertheless, these banks are able to sell their liabilities in financial markets because the buyers believe that they will be protected against losses by the central bank. Certainly the precedent of the Continental Illinois case of 1984 is that stockholders, management and directors may lose in the covert failure of a giant financial institution, but depositors will not. Furthermore, the Continental Illinois precedent is that "depositor" will be broadly defined when a giant bank fails.

The experience and the expectations that depositors are protected against losses when a bank fails is a characteristic of the past 40 years. It was not true in earlier times. Formal deposit insurance, as introduced in the 1930s, is not responsible for this change. It can be demonstrated that if banks and other financial institutions were marked to market, the claims on the reserves of the deposit insurance agencies would far exceed their resources. Deposit insurance is viable because it is supported by central bank and government commitments to validate the liabilities of protected institutions.

The acceptance that intervention will protect the holders of bank and other depository liabilities, and the validation of this expectation by the behavior of governments and central banks in the various financial crises since 1967, is one factor that differentiates the modern economy from the economy that led into the Great Depression. The

effective execution of lender-of-last-resort interventions is one of the things that has been right about the economy since 1946.

The fundamental idea of a theory that integrates the financial structure with the determinants of real income is that the various components of the real income system - households, business firms and governments - have liabilities which are commitments to make payments to financing organizations. These payment commitments on debts are supported by wage and other household incomes, gross profits after taxes for business, and taxes for governments (for simplicity we ignore international relations). These debts originate in exchanges by which the debtor receives money today and promises to deliver money tomorrow.

Several years ago a television commercial asked, "Where's the beef?". As economic theorists, bankers, or regulators and guarantors, we have to be concerned with what determines the cash flows that support financial instruments and what are the consequences of the cash flows falling short of the commitments. In both economic theory and practical affairs of the world the question is, "Where's the cash flow?".

Some years ago I described Keynes' theory as an investment theory of business cycles and a financial theory of investment. The integrating idea I subsequently appropriated shifts the emphasis to the determinants of business profits and liability structures. In the abstract analytical framework of this theory, where government is assumed to be small and households are cut off from debt financing, the investment theory of output determination becomes an investment theory of profit determination. In the simplest of cases and under heroic assumptions, profits are equal to and determined by investment.

The world is not the abstract system that economic theory postulates. In our world government, households, financial institutions and international economic connections exist. In particular, as was noted by Keynes and other economists in the 1930s, debt financial government spending is like investment in sustaining income and employment. Such government spending was even called honorary investment. When the emphasis shifts to profits it is readily shown that government deficits have the same effect upon profits as investment: they sustain profits.

To say that deficits are equivalent to investment in sustaining profits is not the same as to assert that investment and deficits are fully equivalent. In a properly working financial structure, where bankers do their work well, investment spending is always resource creating. In our present structure, government spending is overwhelmingly on defense, social payments and interest on the government

debt which are inefficient for creating resources.

Government is now a much bigger proportion of the economy than it was when the economy last went into a serious depression. In 1929 the Federal Government of the United States was about 3% of GNP. At present United States taxes are about 18% and government spending is about 24% of GNP. The difference in the relative size of government is impressive, especially as investment was about 16% of GNP in 1929 and remains about the same percentage now.

In the recessions of the post-war era, especially in the more serious recessions of 1969-70, 1974-75, and 1980-81, government deficits exploded as investment decreased and the economy went into recession. As a result, gross corporate profits were sustained and even increased during a recession. For example, at the depth of the 1974-75 recession in the second quarter of 1975, gross business profits were actually higher than a year earlier when the recession was just getting under way.

Big government, and the profit-sustaining deficits which big government makes possible, is a second thing that was right about the economy since 1946 that was missing from the economy prior to 1933.

The absence of a serious recession in the forty years since World War II is due to two factors. The Federal Reserve's lender-of-last-resort interventions were prompt and effective in sustaining asset values. Government deficits, which in part were a built-in response to declining incomes, effectively sustained profits whenever a recession set in.

Is our post-war past a reliable guide to the future? Can the twin defenses that were so successful as recently as 1981-82 be overrun? It goes without saying that financial institutions and practices have and are undergoing very rapid change. It is also necessary to note that the essential lender-of-last-resort interventions in the post-war era were by the United States' Federal Reserve System and its associated agencies, and the weight of the United States in the world economy has decreased markedly in the past five years.

Not many years ago teaching Money and Banking was almost a bore. The institutional structure was seemingly set and practices changed but slowly. Now when Money and Banking is taught the instructor has to admit that his exposition of what, how, and by whom, is probably out of date: what was the truth yesterday is not the whole truth today.

In today's world, financial markets are global, financial institution

assets are securitized in a multitude of forms, and firms are multinational, not only in their production and sales but also in what place and currency they finance. In this globally integrated system, it is doubtful that sustaining the United States economy and financial institutions by Federal Reserve interventions and Federal Government deficits can do the job of containing financial crises and sustaining income, without active cooperation from other central banks and governments.

Let us assume a recession takes place with the present deficit in the United States trade account and the ongoing Federal deficit. Let us assume that as the recession unfolds a major financial institution is in trouble: a major financial restructuring which involves offshore institutions and assets is necessary.

The recession would lead to a substantial increase in the already large government deficit. The financial restructuring requires an infusion of Federal Reserve liabilities. Would not offshore and even U.S. holders of dollar assets fear for the capital value of their assets and seek a safe haven? What would be the consequences for the offshore dollar-denominated banking structure of a run from the dollar? It is easy to visualize widespread non-fulfillment of dollar-denominated contracts and sharp declines in asset values that the Federal Reserve cannot halt, because the market pressures are for substituting other currencies for dollars at a rate that swamps the prior international agreements, and from sources that the Federal Reserve may feel no need to protect. The growth of markets will have made national interventions ineffective and there is no guarantee that cooperation will be forthcoming.

A select number of giant international financial firms, banks, investment houses, insurance companies, do their business in many countries. Should they be internationalized in law as they are in their practice? Should there be a merger or at least a consortium of the major central banks? Are common prudential examination practices and common standards for dealing with funding problems necessary? Is prior agreement needed on who takes responsibility for the liquidity and, if necessary solvency, of such private internationalized institutions?

Ever since the 1930s one question economists need to face has been, "Can 'It' happen again?". The combination of quick and effective lender-of-last-resort intervention by the Federal Reserve and appropriate deficits by the United States Treasury has succeeded in containing and reversing significant thrusts towards a deep and prolonged recession in 1969-70, 1974-75 and 1981-82. The Federal Reserve contained other threatening episodes, such as the failure of the Continental Illinois Bank in 1984.

However, the new complexity of the financial structure combined with the rapid deterioration of the international economic strength of the U.S. in the past five years makes it very likely that the next time will not be like the last time. I do not want to say that another Great Depression is imminent. At the end of the Second World War, a Big Government capitalism with an interventionist Federal Reserve emerged in the United States. Quite accidentally this combination was able to sustain both financial institutions and profits when the need arose.

Let us return to the Chernobyl analogy. Misadventure, accidents are always possible. Success in preventing depressions may now depend upon cooperative behavior by national central banks that naturally see things in different ways. The immense growth of international and domestic financial markets and the development throughout the world of institutions that do banking business, but which are not banks, means that the efficacy of the controls and interventions that rest on the power of central banks to compel banks to behave in a desired manner is attenuated. The financial system is becoming more explosive as its size grows and the importance of exotic financial instruments, such as securities collateralized with financial instruments, increases.

It seems reasonable to conclude that the success of the post-World War II system has made the control mechanisms that were responsible for its success of doubtful effectiveness in the future. Stability has permitted both institutional evolution and economic growth to create a system that is instability prone.

It is rational to expect that unpredictable changes will occur in the financial environment and that decision-makers at central banks and in government offices will need to act in new and unique situations. The reactions, if driven largely by fear of the unknown, might well be to turn to inappropriate national solutions. Each will protect its national financial institutions and abrogate in one way or another international financial and trade relations.

However, if we understand the major financial and economic powers have the ability to jointly preserve the value of assets and the gross flow of profits, then a solution which sustains the growth of the world economy is possible.

There is sufficient knowledge available so that the unstable global economy can be stabilized in a way that is analogous to how the unstable United States economy has been stabilized in the post-war era. Unfortunately, the ideas that guide public policy these days seem not to recognize that intervention and regulation are needed to generate a reasonable path of development of our inherently unstable world economy.

DEBT, DEFAULT, AND LONG WAVES: IS HISTORY RELEVANT?

John D. Sterman

I have been asked to give a 'long wave' perspective on the debt problem. This is a curious mandate since most economists declare flatly that long waves do not exist. How can a nonexistent phenomenon illuminate the very real and pressing problems facing the world economy? My purpose here is not to argue the case for the existence of long waves. That case is now a strong one and has been amply set forth elsewhere.¹ For the present discussion, then, I will assume that a long wave exists, and will draw out the implications of such a phenomenon for the problem of debt and the possibility of a financial panic and crash. The emphasis will be on the implications for policy, not on forecasts of doom.

I will argue that the world economy suffers from major stresses and imbalances, built up over decades, stresses which will continue to dampen economic growth through the remainder of the decade, at least; stresses which make the economy vulnerable to crisis and panic. Further, the majority of policies, both those of governments and of the private sector, are low-leverage. They are directed at the symptoms of difficulty, not the cause. Many of the policies being pursued today will be ineffective; some are deepening present difficulties. The search for high leverage policies requires a long-term perspective. It demands a focus on the structure of the world economy rather than on events. It seeks lessons from history rather than discounting its relevance.

It was commonplace in the euphoria of the post-war boom to argue that major depression or panic cannot recur due to the vast structural changes since the Great Depression. Activist monetary and fiscal policy, unemployment insurance, deposit insurance, and other automatic and discretionary stabilizers are alleged to give government the ability to fine tune the economy. The World Bank, IMF, and GATT are alleged to provide an international lender of last resort and guard against beggar-thy-neighbor protection. Computers, telecommunications, and new instruments are alleged to provide more perfect financial

* Due to the length of the footnotes they appear at the end of the article.