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Research Report

An economic assessment: Contained depression or the foothills of recovery?

Public Policy Brief, No. 2

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The Jerome Levy Economics Institute of Bard College

Public Policy Brief

An Economic Assessment: Contained Depression or the Foothills of Recovery?

U.S. and Global Finance Prospects
Robert Barbera

The Performance of the Economy Since the October 1987 Crash
David A. Levy

Introduction
Hyman P. Minsky

No.2 /1992

EXECUTIVE SUMMARY

Robert Barbera, Chief Economist and Executive Vice President at Lehman Brothers, asserts that the U.S. will avoid a debt deflation disaster similar to the Great Depression. Although not dismissing the concern of "debt bears"– most notably, conceding that without the colossal bank and thrift bailouts, we would be in a deep and protracted depression—Barbera claims that the U.S. is in the final phase of this recession and "on the cusp of a meaningful recovery."

Barbera points to high real short-term interest rates during the 1980s as a partial explanation for the dramatic increase in indebtedness. These extraordinarily high yields on cash reflected the confidence of business and consumer borrowers that expected returns via future assets price gains and income streams would be sufficient to justify borrowing at apparently exorbitant interest rates. But once expectations of inflation or asset price appreciation collapse, real short-term rates return to more traditional levels. Barbera forecasts a significant recovery based largely on the collapse in short rates—the dynamic developments for lenders, borrowers, and asset prices which ensue from this fall in short rates serve as catalysts for economic growth.

Is there a lesson to be derived from the recent cycle of events? Barbera suggests that when recessions are in their early stages, the commonly assumed fact that economic downturns are temporary is, regrettably, a source of comfort to economic policy-makers. Paradoxically, this confidence in the arrival of an upturn tends to prolong economic distress, as business leaders and policy-makers delay the radical actions that recessions eventually force upon them. In essence, the difficult measures are postponed, and economic malaise lingers.

However, there arrives a moment during recessions when expectations of recovery fade: people suspend there belief in the business cycle, believe that depressed business conditions are likely to continue through the foreseeable future, and drastic measures are then undertaken. Barbera suggests that during this phase, corporations aggressively purge themselves of excesses, and the Federal Reserve switches from grudging ease to impassioned ease: this purging process and easy money policy soon precipitate a meaningful economic rebound.

David A. Levy, Vice Chairman and Director of Forecasting at the Jerome Levy Economics Institute of Bard College, offers a sharply contrasting

assessment of the U.S. economy. He claims that the economy has undergone profound changes since the October 1987 crash of the New York Stock Exchange, and underscores the severity of the crisis by declaring that the U.S. is presently in the midst of a "contained depression."

Labeling the current era of economic stagnation as simply a recessionary stage of the business cycle would be inaccurate, and more importantly, dangerous to restoring economic health. A recession is a period of contracting economic activity that is an adjustment to short-term, excessive production. Thus, a recession may indicate overspeculation in inventories or a short-term disruption in demand. A depression, though, is an extended period of severely reduced economic activity, particularly investment, and massive financial failures that is the consequence of long-term, excessive investment. In a depression, the economy has to absorb not merely excessive inventories, but excess capacity and excess debt. This type of adjustment takes much longer, is much deeper, and causes far more trauma than a recessionary phase of the business cycle.

Levy asserts that the current depression is and will remain contained due to two mechanisms: (i) the massive, automatic federal government fiscal stabilizer (federal government spending as a share of GNP was under 3% in 1929, but exceeds 25% today), and (ii) the set of financial safeguards, primarily deposit insurance, that are preventing a collapse of the financial system.

Is it sheer coincidence that the financial troubles plaguing S&Ls, banks, real estate firms, insurance companies, pension funds, and other entities are occurring simultaneously? Levy declares no, and cites a series of economic trends to defend his contained depression thesis including:

- corporate profits, which peaked in the final quarter of 1988, and have relentlessly declined thereafter
- manufacturers' capacity utilization, which has steadily declined during the past quarter century
- total private fixed investment, which remained at least 14% of GNP since the 1940s, but began falling sharply at the end of 1989, and declined to 12.3% of GNP at the end of 1991

The private sector overbuilt its productive capacity, and this situation led to a broad pattern of dangerous speculation that eventually collapsed. We will witness and experience some unpleasant lessons as the ramifications of overbuilding and asset speculation continue to unfold.

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Preface

In this second issue of the *Public Policy Brief,* two views analyzing the current conditions of the U.S. economy are advanced, each embracing a different perspective. Not surprisingly, and, as it should be, each view attributes the poor health of our economy to different root causes, and each concludes with dramatically different prospects for the future. Both essays however, agree that the economy has been in a state of recession that started sometime in 1990.

Irrespective of the reader's preference for the robustness of the arguments embodied in each essay, the average American's initially favorable response to Ross Perot's (now defunct) presidential candidacy seems to suggest a recognition that the ability of the U.S. economy to provide for a higher standard of living is in greater doubt. And this, despite the mild nature that characterizes this recession vis-a-vis those of the recent past.

We hope the contrast in views contained in this *Brief* is one more occasion to show the commitment of the Jerome Levy Economics Institute and its Board of Governors to be

nonpartisan and open to diversity. We leave to our readers the task of deciding the plausibility of Mr. Barbera's forecast of a "meaningful recovery" or Mr. Levy's seemingly cassandran analogue.

Dimitri B. Papadimitriou
Executive Director

September 1992

Introduction

Economic Prospects: Containment and Expansion

Hyman P. Minsky

The papers by Robert Barbera and David Levy in this *Public Policy Brief* have as their ostensible subject the economic condition of the United States in 1991 and 1992. Their deeper subject is the determinants of the behavior of the economy. The actual current conditions analysis and forecasts are applications of a well formulated vision of what determines the behavior of the economy.

The details of a current conditions analysis of a forecast by an economist are of passing interest—events soon make the details obsolete and the accuracy of the forecast becomes the stuff of history and reputation. The permanent value of any current conditions analysis or forecast lies in the exposition of the analytic framework that is applied, and as an illustration of how that framework is used to understand events and guide policy recommendations. On both grounds, as an implicit exposition of a framework and as an illustration of the implications of the framework to policy matters, the papers in this policy brief score high.

Robert Barbera places the current economic condition in the framework of a long-term debt cycle which culminated in the untenable financial position of highly leveraged companies, Savings and Loan Associations, and banks: many of these units not only had negative cash flows but also negative net worths on a mark-to-market basis.

This situation, which marked the end of a 40-year debt expansion phase of the debt cycle, had the potential of triggering a dastardly repetition of the debacle of 1929-33. In Barbera's framework the so called bailouts of S&L's and banks were the refinancing that was needed to contain a potential financial collapse, which, if uncontained, would trigger another Great Depression. Within the framework of this model of a contained collapse, Barbera takes up the impact of the easing of market interest rates, which are due to the end of the inflation and the easy money policies of the Federal Reserve.

Robert Barbera does not simply assert that a more rapid expansion of the money supply, and the lower interest rates this promotes, leads to a recovery of the economy. What he does is trace the effects of lower interest rates upon the flows of cash through the economy and the market value of assets. The rise in asset values that comes from capitalizing a given stream of earnings at lower interest rates means that even with no improvement in cash flows, there will be an improvement in the margins of safety of the holders of financial liabilities. Furthermore, as lower interest rates work their way through the economy, the cash payment commitments of debtors decrease. This frees income to reduce debts and to finance spending.

Barbera's inimitable forecast that "cash is trash in 1992," and that this will affect longer-term interest has been borne out by events. The connection that Barbera emphasized between lower interest rates and increases in economic activity is by way of the lower cash payment commitments on debts and more favorable financing charges for new investment. The lower payment commitments on outstanding financial obligations leads to a quicker pay down of debts, and therefore, to a recovery of the ability to debt finance spending. However, for this to operate the incomes of the debtors have to be sustained.

David Levy analyses the current situation from the perspective of the "Levy doctrine" on the determination of profits: the leading determinant of profits is investment spending. Therefore, the recovery of which Barbera seems so certain is in the framework David Levy uses—conditional on investment being adequate to sustain the gross pre-interest payments capital

incomes (profits) which are the cash flows that are capitalized to give capital assets value.

The core of the Levy argument is that the 1980s saw a vast overexpansion in commercial real estate and in productive capacity so that investment will be depressed by the proliferation of capital assets that are not performing according to expectations. After all, the improvement in the value of financial assets and the ability to pay down debts as debt servicing costs decline with the fall in interest rates depends upon the continuation of the capital incomes. In Levy's analysis, the overinvesting of the 1980s, combined with the indebtedness induced by financial market developments which include the new players and instruments in financial markets, means that there will be a decline in expected cash flows that offsets the lower interest rates: due to overinvestment in the 1980s, the United States will be in a depression—one which does not display the attributes of the Great Depression because of the combination of the Federal Reserve and deposit insurance interventions which sustained asset values, and the government deficit which sustained profits.

Both papers exhibit their models. They use their analytic framework to interpret data. In combination, the papers show the complexity of the paths that go from a policy of intervention such as those the Federal Reserve takes to the behavior of the economy: in economics many a slip is possible between the cup of economic policy and the lip of the performance of the economy.

U.S. and Global Finance Prospects

Robert Barbera

The United States is in the process of ending a 40-year debt cycle. I believe we will accomplish this with different results than the disaster of the 1930s—the last time we were in this situation.

I probably disagree with a number of people in thinking that the U.S. will pull this off without a dastardly result. But I believe we have taken the necessary first steps. One is that, in effect, we are writing the multi-hundred dollar billion check to put cash where it is needed—on the left-hand side of bank and thrift balance sheets. The infusion of government cash to validate deposits is one means by which we are restoring financial system equity. Another is that short-term interest rates have fallen rather dramatically and are likely to fall further. Interest rates on cash accounts are essentially collapsing.

Again, I think the U.S. will avoid a debt deflation disaster. So I disagree with one aspect of the contained depression thesis. Nonetheless, I have been a kindred spirit of the "debt bears" for the past 15 months. Most importantly, I think that without the

colossal bank and thrift bailouts, we would be in a deep and protracted depression. In that sense, I am in close accord with the Levy thesis. Most economists, in contrast, have paid little attention to the banking system and have been talking about a mild recession and a mild recovery. Most of them have been terribly wrong about the severity of the ongoing recession, in my opinion, because they have been wrong in their focus. Their concentration on Mideast oil prices was misplaced; it should have been on debt levels, asset prices and real returns on cash—not Iraq and the tanks, but debt and the banks.

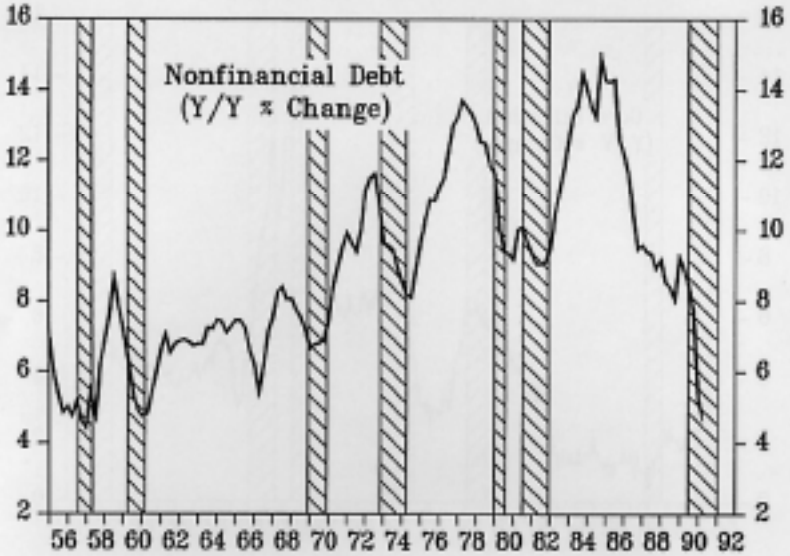
Notwithstanding the fact that I think we are in the last stages of this recession, I am going to try to convince you that we are on the cusp of a meaningful recovery. I know that doesn't tend to be the consensus view. Let me try to convince you why that is going to be the case. I will start by examining how we got here and then talk about how I think we are going to solve our problems.

Let's start with the two great anomalies of the 1980s. First, there was an extraordinary leveraging up of the U.S. economy, and the debt-to-income ratio soared. Second, real rates on cash rose to unprecedented levels. I believe these two developments are linked.

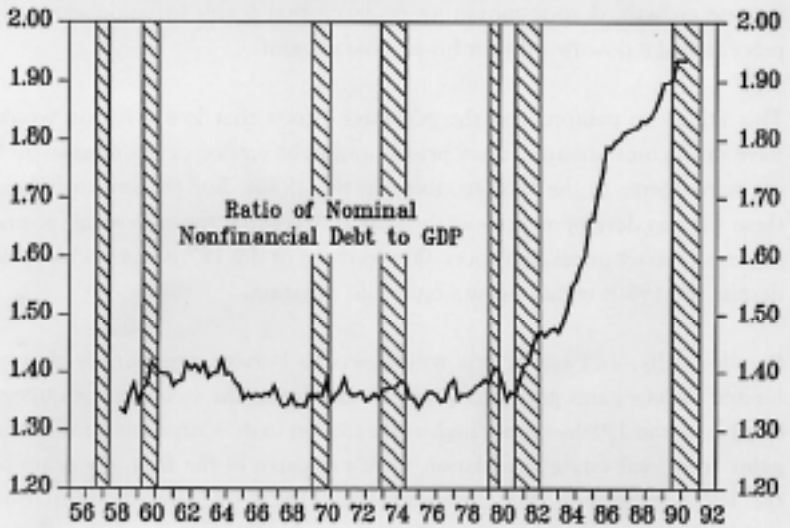
U.S. inflation's striking decline in the early 1980s, its limited late-cycle lift in 1988-1990, and its probable dramatic slide in the current recession suggest that U.S. monetary policy over the past fourteen years has succeeded in breaking the back of the unrelenting price acceleration witnessed in 1965-1980. Nevertheless, debt had one last glorious run over the course of the 1980s as business, consumer, and public sector borrowing combined to lift aggregate debt growth to 13%-15%, eclipsing the peak levels of the late 1970s. Again, inflation was all but vanquished by mid-1980, and, as a consequence, income gains slowed markedly from the inflated growth rates of the late 1970s. Debt growth outstripped income growth substantially, and for the U.S. economy as a whole, the debt-to-income ratio rose a drastic 50%. Thus, the first great imponderable of the 1980s was the debt explosion that occurred in the midst of great disinflation.

What prompted this radical shift in U.S. indebtedness? I have a single, no doubt a bit simplistic, explanation. I believe consumer and corporate borrowers and the banks, pension funds, and investment bankers who engineered their loans all failed to embrace the reality of the great disinflation of the 1980s. In essence, over the past decade we beat core inflation—but we didn't get the joke.

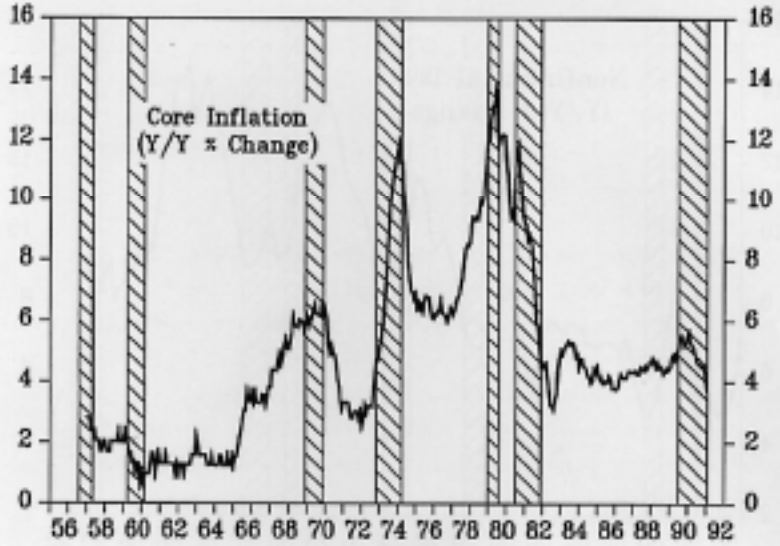
Graph A
Nonfinancial Debt (Y/Y% Change)



Graph B
Ratio of Nominal Nonfinancial Debt to GDP



Graph C
Core Inflation (Y/Y% Change)



In my opinion, the willingness to increase debt levels at double-digit rates reflected a confidence in the ability to generate double-digit increases in income growth, despite mounting evidence that lower inflation generally preordained a downward shift for income streams.

This failure to comprehend the pervasive effects that low inflation would have on income streams, asset prices, and debt service developments took on many forms in the U.S. economy in the 1980s. But the key to linking these various developments was the shared belief that for individual income streams or asset prices, advances akin to those of the 1970s were achievable despite the 1980s reality—low single-digit inflation.

Paradoxically, as I see it, this willingness to borrow aggressively despite limited income gains goes a long way in explaining the second great imponderable of the 1980s—super high real rates on cash. Corporate profits and gains from real estate speculation were explosive in the first few years of the 1980s expansion. But the dampening effects of lower core inflation ended this spurt. In fact, from 1988 through 1991, profits fell and real estate returns became big losses. The initial jump for profits kept a persistent belief in hefty gains in place throughout the 1980s. As a consequence,

from 1980 through 1989, U.S. short-term interest rates vacillated in the rarified atmosphere of 3% to 8% above the inflation rate. When Fed policy was restrictive—that is, when it slowed money, credit and economic growth—short rates tended to be 5% to 8% above core inflation. In the 1980s, ease generally meant that real rates on cash had fallen to no less than 3% above the inflation rate. For the period in question, inflation-adjusted yields on 90-day T-bills averaged 3.0%. In no decade except the 1930s have real yields been so high.

Incidentally, I completely disagree with Robert Barro's argument, presented in a recent NBER working paper, that high real short rates in the U.S. during the 1980s were a sign of economic health. Real returns on cash in the mid-1980s were paid on a premise that commercial real estate, LBOs, and other speculative loans would deliver handsome returns. The collapse of the asset classes, and the consequent need to directly infuse hundreds of billions of dollars into the banking system via the FDIC and FSLIC bailouts, plus the subsequent need to collapse short rates, all speak to the fact that, *ex post*, the returns were not there.

Reflect upon the bust in real estate, the collapse of the junk bond market, and the 70% decline in the market capitalization of money center banks from October 1989 to October 1990. All of those were manifestations of the markets coming to terms with disappointing returns: these disappointments, in aggregate, translated to an anticipated inflation that failed to materialize.

Again, the other 1980s anomaly was high real short rates. Our sense is that these extraordinary real yields on cash were directly related to the confidence of business and consumer borrowers that future assets price gains and income streams would justify borrowing at interest rates that, by historical standards, appeared exorbitant. U.S. central bank officials had no choice but to find the rate that kept the real economy from overheating. To their chagrin, it was well above the rate of inflation.

But once expectations of inflation or asset price appreciation collapse, one has to expect real short rates to return to much more traditional levels. That is why I thought last year that we would see dramatic declines in short rates. To date, things have moved in that direction.

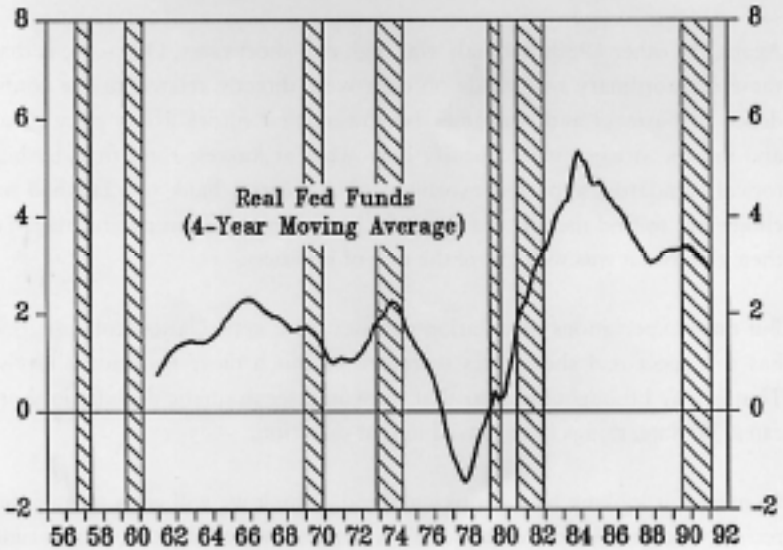
So much for looking back. Looking ahead, I think we will get a meaningful recovery because of the collapse in short rates. My contention at this time last year was "cash is trash," meaning short rates would collapse and

returns on cash-like instruments would be negligible. My contention today is "money rates matter." When short-term money interest rates plummet, dynamic developments become the rule for borrowers, lenders, and asset prices. These dynamics prevent recession from devolving into depression. Furthermore, they are able to restore the economy to its robust growth phase.

Money Rates Matter: The Banks

The key to understanding the interest rate dynamic that I believe will rescue U.S. economic growth in the 1990s is the seemingly neutral interest rate structure in place when the current recession unfolded. With money rates towering over the inflation rate during the 1980s, Fed policy was being conducted in an extraordinarily high real rate environment. There was no need for a sharp spike up in Fed funds. At the outset of the 1990s, bank regulators forced a change in attitude about what constituted a prudent loan. With non-performing assets mushrooming, conservative reassessments of the value of bank loan portfolios began in earnest. A mark-to-market basis handicapping of bank portfolios pointed to major bank capital adequacy problems; bank lending ground to a halt, and recession followed.

Graph D
Real Fed Funds (4-Year Moving Average)



To many, the collapse in bank asset values, mark-to-market, precludes any meaningful pickup in loan growth for the foreseeable future, in turn suggesting an extraordinary U.S. economic decline. I disagree. While I embrace the notion that bank balance sheet duress was a critical link in today's downturn, a sharp slide in U.S. interest rates, because it raises the mark-to-market value of any income stream, can reflate bank balance sheets and allow lending to recommence and expansion to begin again. The debt bears have had the right focus, but the wrong conclusion. In the current circumstance, the onset of the U.S. debt deflation was met by a collapse in short-term interest rates. This freefall for short rates prevented the freefall of the real economy.

Consider the pattern for New York money center banks over the past three years. In October 1989, a kinder and gentler period for asset valuation, a typical bank had a commercial building on its balance sheet with an asset value of $100 (I'm simplifying here). It was well known that the building was half full, but it was generally accepted that it would fill up over five years. The loan was accepted at its face, or book value. Over the next year, however, feelings about commercial real estate changed dramatically. That building would not fill up in 5 years, not 12, not 20, never! It wasn't a $100 asset, not $90, not $80 not even $60! Bank stock prices weren't $45 per share, not $35, not $25, not $10.

In late October 1990, we had reduced the market capitalization of money center banks by 70%. Mark-to-market calculations suggested negative worth for all but a few banks, loan availability was nil, and recession seemed sure to deepen much further. The answer? Surely, we can agree that no interest rate can rescue commercial building activity in the quarters ahead. Nonetheless, dramatically lower interest rates can substantially raise the value of an asset's income stream. From late-October 1990 through November 1991, short rates fell 3.5 percentage points and long rates fell 2.0 percentage points. A building may remain half empty, but its mark-to-market value rises as rates plummet. Similarly, as the collapse in short rates lowers debt burdens on highly leveraged companies, these assets on bank balance sheets also lifted on a mark-to-market basis. Lastly, banks dramatically increased the value of their Treasury holdings over the period. Treasury notes rose from 7% to 14% of bank assets, and the value of these assets surged as short rates collapsed. In turn, bank share prices rose some 35%-65%.

Yes, the credit crunch has been extreme. The depth and duration of today's recession make this point. But an extraordinary decline in interest rates will succeed in reversing bank system duress and U.S. economic decline.

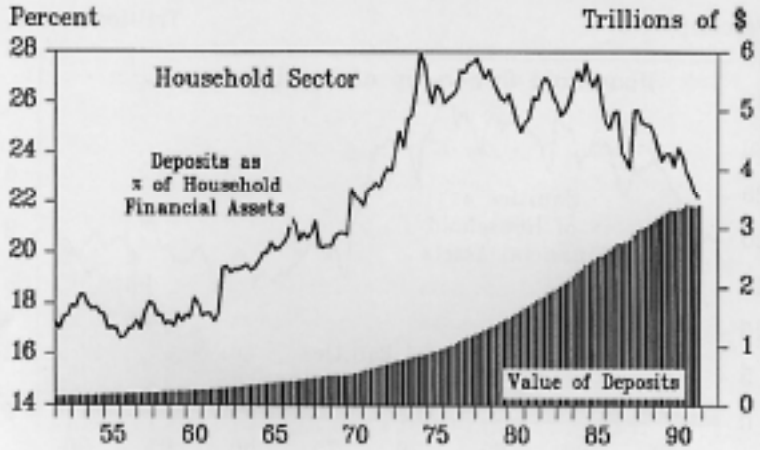
Money Rates Matter: Individual Investors Are Forced Out the Risk Curve

Collapsed real short rates have profound consequences for household saving decisions. I believe individual investors over the next five years will shift substantial sums out of cash and into notes, bonds, equities, and bond and equity mutual funds. Managed funds, debt and equity, will no doubt capture the largest part of this explosive flow. Investors have not changed their risk profile, but the risk-free ride that cash afforded them in the 1980s is over.

A look at the flow of funds data from 1950 to present shows that U.S. savers occasionally change their minds, and when they do, it's dramatic. In 1955, 30% of household financial assets were in equities, 15% were in fixed-income, and 15% were in cash. In the late 1960s and early 1970s, the public was burned in both bonds and stocks and left those markets. Equities went from 30% to 15% of household financial assets, bonds from 15% to 10%, and cash from 15% to about 27%. In the 1980s, despite the fact that both the equity and bond markets did very well, the public did not return to equities and took only a half step back to bonds. Households kept 27% of their financial assets in cash. Why?

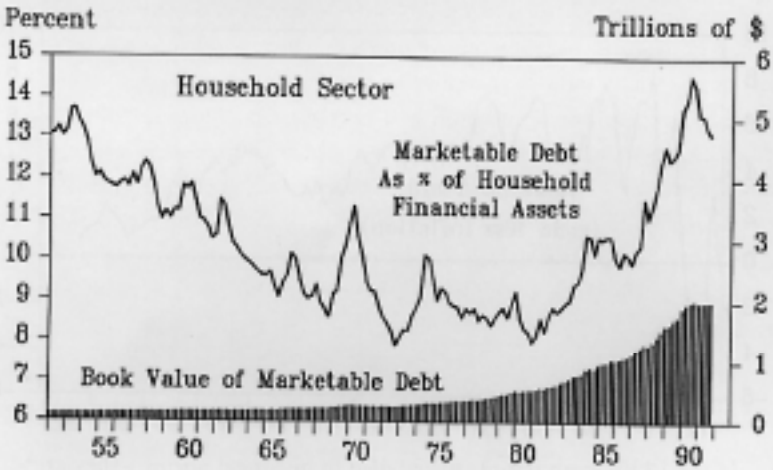
Because in the 1980s, you could get 4% above the inflation rate, government-guaranteed, and with no principle risk. It was preposterous for banks to pay these rates because the returns were not there. Today's explosive bank bailout is a painful reminder of that reality. An investor is not supposed to get 4% above inflation and take no risk. Indeed, from 1926 to 1980, cash generally delivered nothing, and holders risked nothing. The 1980s were the exception to the rule. I think that era has ended, that the regime of significant positive returns on cash is over. People will move out of cash not because they want the action, not because they want to extend their risk profile, but because they have to in order to earn acceptable returns.

Graph E
Deposits as % of Household Financial Assets



In the 1950s cash yields were non-existent and retail investors kept little of their financial wealth in cash.

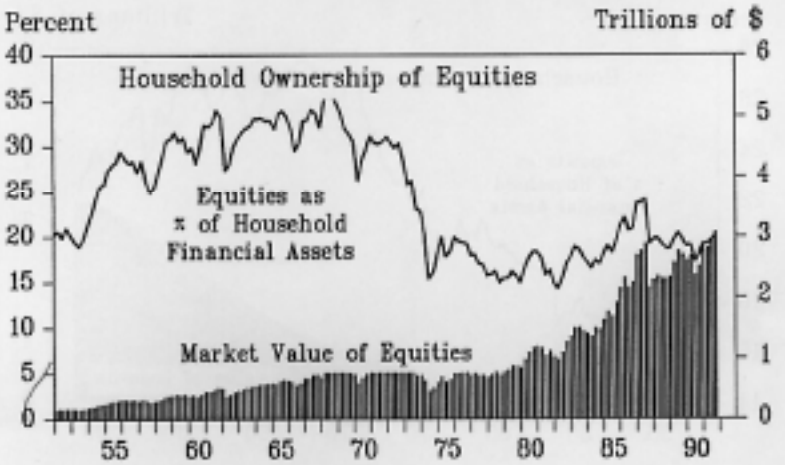
Graph F
Marketable Debt As % of Household Financial Assets



In the late 1960s and early 1970s, inflation wreaked havoc on stocks and bonds, and the public fled long-term financial assets.

Graph G

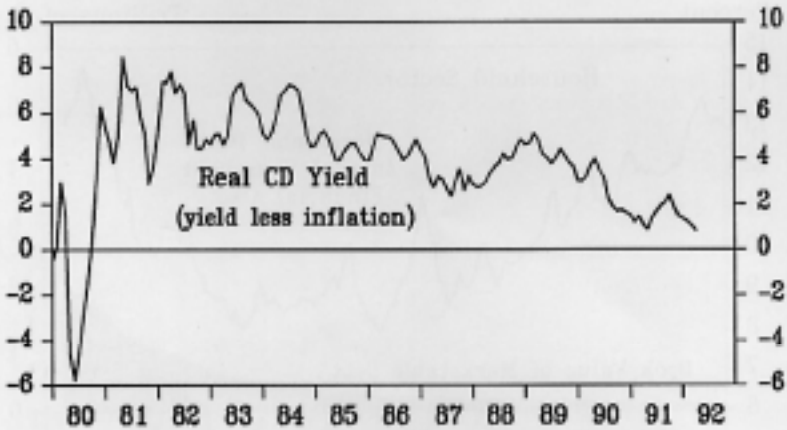
Equities as % of Household Financial Assets



In the 1980s, real returns on CD's averaged 4%. Cash remained a significant part of investors' portfolios.

Graph H

Real CD Yield (yield less inflation)



In the 1990s, cash returns have fallen to historical norms – they are near zero after adjusting for inflation. A move from cash into equity and bonds totaling hundreds of billions of dollars.

The Real Story of Treasury Bill Rates: Depression, Wars, Good and Bad Monetary Policies

	Inflation (%)	T-Bill Rates (%)	Real T-Bill Rates (%)
1920-29 Bad Monetary Policy	1.0	3.8	2.8
1930-40 Depression	-5.0	0.6	5.6
1941-54 Wars	4.7	0.9	-3.8
1955-65 Good Monetary Policy	1.4	2.9	1.5
1966-74 War/Bad Monetary Policy	5.6	5.6	0.0
1975-80 Bad Monetary Policy	8.8	6.3	-2.5
1981-90 Good or Bad Monetary Policy?	4.5	7.7	3.2
1991-95 We Will See!	3.0	4.5	1.5

Money Rates Matter: Lower Long Rates and Higher Equity Prices Allow Consumers and Corporations to Reliquify

Why are consumer investment flows important? Because they have driven bond and equity prices to levels that allow major refinancings to occur for U.S. consumers, corporations, and municipalities. Debt burdens, therefore, will fall, and freed up cash will fuel recovery.

The Consumer Reliquifies

How much will consumer interest burdens be reduced by the recent sharp fall in fixed rate mortgages? Were all outstanding mortgages to be refinanced, an extreme notion to be sure, the saving would amount to $60 billion annually—an extraordinary amount that reflects the fact that home mortgages constitute roughly 71% of outstanding consumer liabilities. To estimate the more likely saving, we at Lehman Brothers Economics base our calculation on an average fixed rate of slightly less than 8%—our expectation for the first nine months of 1992—and assume no shift in the mix from fixed to variable rate mortgages. We estimate that in late 1992, mortgage interest burdens will be running at a rate $43 billion lower than in the fall of 1991—certainly meaningful interest burden relief. We contend that home mortgage refinancing will be explosive over the first half of 1992, with a record rate of refinancings for high interest rate mortgages. But again, our estimate does not assume any change from fixed to variable rates, a move that would have still greater effects. Nor do we presume that low interest rate mortgage debt will replace pernicious auto and credit card debt. These developments could also materialize and would obviously raise consumers' interest saving.

Even if consumers reduce their interest burden, some contend that saving, not spending, will rise as a consequence of consumers' needs to unwind 1980s' debt excesses. A look at U.S. consumer spending in the current recession, however, reveals that the excesses of the 1980s have already taken a great toll. The drop in consumer discretionary spending during this recession so far is substantially steeper than in all but two of the postwar downturns. With consumer discretionary goods spending now down nearly 6% from its peak, a new source of cash flow will give people a chance to recapture some of their lost living standards. As rate relief works its way through the system, spending will rise.

Similarly, Corporations Can Now Sell Stocks and Bonds

From 1983 through 1990, corporations retired some $850 billion of equity, as exceptional real short rates capped equity valuations. With the sharp slide in short rates, equity valuations have soared and equity issuance will be explosive. Initially, equity will be issued to pay down debt. Over time, however, equity offerings will be used to raise cash to invest in profitable lines of business.

Money Rates Matter: Housing Activity Surges

Housing activity is also likely to surge in the near term. The latest leg down for long rates has sparked the kind of change in sentiment about home buying that was missing throughout 1991 and that has consistently been associated with sharp rebounds in home sales and housing starts. Demographics suggest that over the next five years of this recovery and beyond, expansion will be tame in comparison to previous cycles. Nonetheless, single-family starts fell nearly 50% over the 12-month period from early 1990 to early 1991. That was not demographics—we did not all start being born on the same day. The halving of housing activity reflected the credit crunch-induced U.S. recession. Put the right rates in place and housing will respond. In my opinion, today's rates look about right. Sentiment surveys suggest they look right to many consumers. And the chatter we have heard from real estate agents is that more than sentiment about home buying is changing.

Money Rates Matter More Than Sentiment: It's Always Darkest Before the Dawn

Why do I think this recovery will have some meat to it? First, because the sliding asset price-induced recession we are in had an important cyclical component to it. Let us take a Geoffrey Moore approach and look at the variable that is most volatile in the business cycle: corporate profits. The average recession decline is 22%. In the current downturn, they are down 24%. Inventories have declined. Manufacturing and trade inventories, on a percentage basis, have fallen more than average in this recession. Short-term credit has experienced a collapse of unprecedented proportions. It looks like short rates have fallen about average. The only less likely forecast than a saucer recession and a saucer recovery is a "V" recession and a saucer recovery. So I think we will see some meaningful lift.

Lastly, because despair is in the air just about the time recovery surprises, I am going to paraphrase an article entitled *The Recovery That Won't Start* from the Sunday "New York Times" Late City Edition.

> Last week the President strained to make his case for the U.S. economy in a televised news conference, relying on sketchy economic information and even misinformation. He cited sharply lower inflation and interest rates as harbingers of recovery just ahead. Notwithstanding his oratory, the prospect that the recovery may amount to nothing more than a few quarters of paltry

> growth and possibly not even that is gaining credence among economists and the public at large. Opinion polls have begun to show that such a shift would threaten Republican chances in the November election. This recession in fact has begun to shatter the almost blind faith among economists and many others that this recession like its forbearers would inevitably be followed by recovery.
>
> Despite the official data showing two quarters of modest growth, the economy has failed to spurt ahead as many had anticipated it would by now. Furthermore, there has been a relentless stream of negative economic indicators in recent weeks: rising initial claims, disappointing index of leading indicators. Even more ominous to some are the growing doubts whether the economic recovery will and can operate as in other postwar business cycles. Some economists fear that financial illiquidity, both in the U.S and around the world, could hinder or even prevent recovery from taking place.
>
> "What is different this time from other postwar business cycles," says Jeffrey Sachs of Harvard University, "is that usually government policy aims at supporting recovery and this time it is not."

Those sentiments are ominous and Jeffrey Sachs' quote is telling. Recovery is no longer a good bet because this time it is different. The beauty of the article, however, is that it was written in October 1982, on the cusp of what turned out to be an extraordinarily strong U.S. recovery.

Is there a lesson to be learned? I believe so. When recessions are in their early stages, the well known fact that economic downturns are temporary provides comfort to economic decision-makers. Paradoxically, this confidence in the arrival of an upturn tends to prolong economic distress. Business leaders and government policy-makers postpone the radical actions that recessions ultimately force upon them. The tough steps are put off, but the recession lingers. There comes a moment during recession, however, when expectation of recovery fades away. People suspend their belief in the business cycle, decide that depressed business conditions are likely to continue for "as far as the eye can see," and radical steps are then taken. Corporations aggressively purge themselves of excesses. The Federal Reserve switches from grudging ease to impassioned ease, and this purging process and easy money policy is followed soon thereafter by meaningful economic rebound.

The Performance of the Economy Since the October 1987 Crash

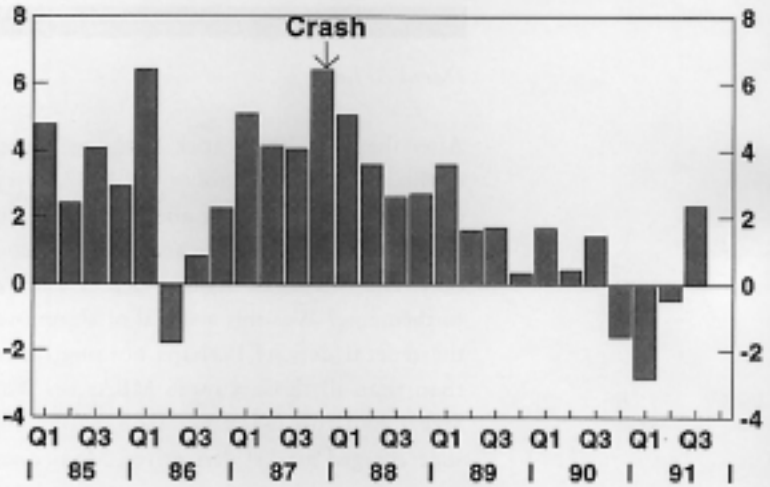
David A. Levy

After the New York Stock Exchange closed on Black Monday, October 19, 1987, everyone was talking not only about the crash but about its broader significance for the economy. Did this mean another depression was forthcoming? Was this a signal of alarm over the federal deficit? Perhaps nothing, other than that all those yuppie MBAs on Wall Street had too many electronic toys and supercharged market derivatives. Many questions, but not much agreement on the answers.

Now, more than four years later, what can we say about the crash and its broader economic significance? My task today is to offer some thoughts about the performance of the economy since the 1987 stock market crash. At first glance, not much has happened after the crash. But under closer inspection, it is evident that the economy underwent profound changes since October 1987. While I do not believe that the market debacle was the central event of the period, it was part of a profound metamorphosis that the economy was starting to undergo.

Let's begin by looking at the obvious question: what happened to economic growth following the crash? Graph 1 demonstrates that the economy certainly did not dive. Based on changes in real GNP, we see nothing dramatic in the 6 quarters following the crash. GNP is highly overrated as a quarterly measure of the economy's well being, so I would not make much of the slowing growth during 1988.

Graph 1
Real GNP
One Quarter Percent Change at Annual Rate

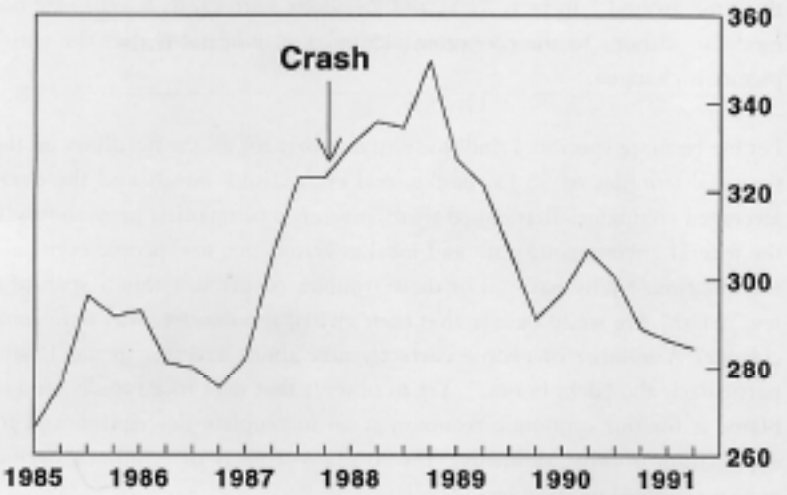


Source: National and Income Product Accounts

However, beginning in early 1989, the economy began to act strangely. Growth became markedly slower, and the economy looked increasingly sick. Graph 2 illustrates that corporate profits had peaked in the final period of 1988, and they relentlessly if not steadily declined. As profit margins narrowed, the economy's vigor eroded until, by summer of 1990, the economy was officially contracting. What is striking about this decline was that it was accompanied by neither of the phenomena that preceded other modern recessions: rising interest rates and rapid inventory building. The Federal Reserve began to reduce interest rates in the first half of 1989 and continued sporadically but never tightened. Business, which had been extremely careful about inventories since 1985, continued to avoid significant inventory imbalances until well after the 1990 downturn, when inventories began to swell relative to sales as a consequence of the recession. You

may recall that back in 1990—right through the recession's early months—that we heard over and over again from private and public sector analysts: "There is little chance of a recession. We do not see the usual signs that precede recessions." Events speak for themselves.

Graph 2
Corporate Profits
(With Capital Consumption and Inventory Valuation Adjustments)



Source: National Income and Product Accounts

The end of this recession, or lack thereof, has been as unusual as the beginning. In the spring, the common analysis was, "We see all the usual signs of recovery: a bottoming of housing starts, falling interest rates, and an easing of inventory liquidation. The recovery is beginning."

Wrong again! This is not a typical postwar recession. Indeed, the U.S. has entered an entirely new era of its economic history, one with fundamentally different underlying characteristics than the first forty postwar years.

Was the stock market crash related to the start of this new era? Yes. However, the relationship was not causal. Rather, both the unnerving market behavior and the breakdown of the economy's past cyclical patterns were symptoms of the same underlying conditions. This tale, which consists of three parts, addresses how strange economic performance and market crashes are tied together. The first concerns dramatic changes in American

fixed investment and in its physical capital—specifically, how the private sector overbuilt its productive capacity. The second part shows how this situation led to a broad pattern of dangerous speculation that eventually collapsed. Finally, I incorporate the stock market into the picture.

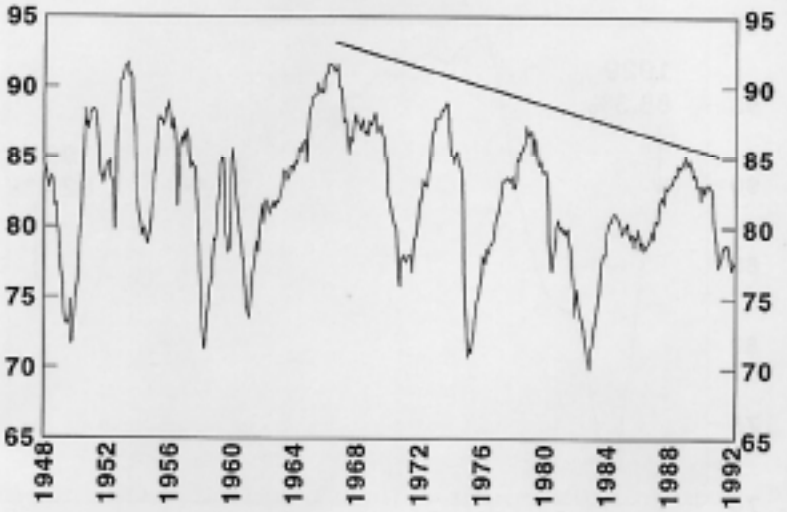
If nothing else, I would like to convince you that the economy's current situation is extraordinary by the standards of recent decades. Most people think and talk about the economy as if it were the same old economy, just with a few, unrelated problems. "X, Y, and Z will give us a slower recovery this time around." In fact, X, Y, and Z—along with Q, R, S, etc.—are not modular add-ons to the economic picture, but indications that the entire picture is changed.

Let me be more specific. I find it mystifying that for all the headlines on the financial troubles of S&Ls, banks, real estate, junk bonds and the overleveraged companies that issued them, insurance companies, pension funds, the federal government, state and local governments, few people ever raise the question: "Why have all of these troubles occurred within a span of a few years?" Are we to believe that their virtual simultaneity was pure coincidence? A number of people correctly talk about excesses in the 1980s, particularly the "debt boom." Yet to observe that debt rose rapidly, and to blame it for our economic troubles, is an incomplete description and no explanation of why, suddenly, the so many aspects of economic performance exhibited unprecedented behavior.

The story that explains the debt boom of the 1980s, as well as the other phenomena I have been discussing, begins in 1945. America started with a dire shortage of fixed assets at the end of World War II. It experienced decades of vibrant fixed investment and strong economic growth as it raced to meet demands for housing, industrial capacity, and commercial buildings. It ended up with widespread overcapacity in the 1980s.

Graph 3 shows manufacturers' rate of capacity utilization since the late 1940s. The trend line is to call your attention to a steady decline in utilization during the past quarter century. Each cyclical peak since the 1960s was progressively lower. In 1966, the factory operating rate reached nearly 92%. In 1989, the last peak, it barely hit 85%.

Graph 3
Manufacturing Capacity Utilization
(Percentage)

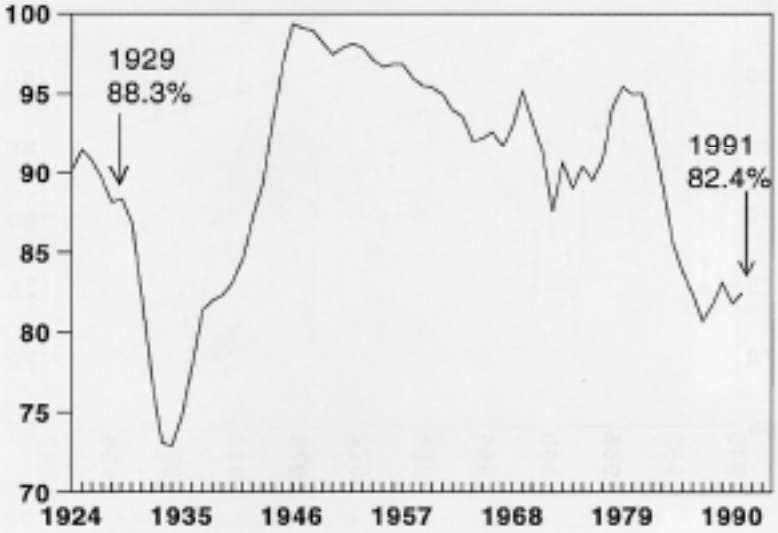


Source: Board of Governors, Federal Reserve Bank

Moreover, this graph understates the problem. From the late-1940s until the mid-1960s, the growth outlook for the typical manufacturing industry was much greater than it is in the 1990s, so firms were naturally anticipating more volume growth when expanding facilities then they are now.

Graph 4 depicts the national office occupancy rate, according to the Building Owners and Managers Association (BOMA). As you can see, the occupancy rate fell below 90% in the late 1920s, reflecting overbuilding. It was 88% in 1929 when the economy began to come apart, and of course it plunged during the depression. By the end of World War II, however, it was extremely high, and as the economy began to expand, it almost immediately exceeded 99%. This extreme scarcity of space led to a boom in office construction, and the occupancy level gradually came down to a more comfortable level. But we kept on building faster than demand was growing, until the occupancy rate fell to 82% in the 1980s—a much worse case of overbuilding than in 1929. Similar stories can be told for retail and hotel space.

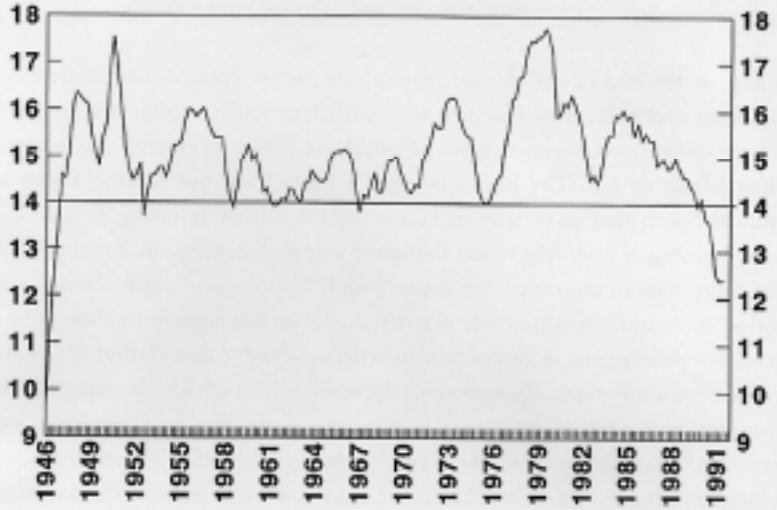
Graph 4
National Office Occupancy Rates
(Building Owners and Managers Assn. Int'l.)



What happened as a result of excessive, idle capacity was a slowdown in many kinds of fixed investment. The signs have been widespread: downsizing in heavy industries in the 1980s, deep slumps during the same period of petroleum, copper, aluminum, and other resource markets, and, more recently, restructuring (which often simply means shrinking) in a broadening array of goods and services industries.

Graph 5 is quite remarkable since it clearly demonstrates capital spending contractions. Since the late 1940s, total private fixed investment—that is, investment in nonresidential structures, producer's durable equipment, and residential structures—was at least 14% of GNP (and it was usually much higher), with a few slight quarterly exceptions. The low points were generally at the ends of recessions. Interestingly, though, the share of fixed investment to GNP began to erode in the late 1980s. It reached 14% at the end of 1989 and kept falling. It has declined to 12.3%, and it will fall further.

Graph 5
Gross Private Fixed Investment
As a Percentage of GNP



Source: National Income and Product Accounts

Again, this is no ordinary recession. Of course, investment has a highly leveraged effect on economic growth due to a multiplier effect: from a more practical perspective, fixed investment is the economy's largest source of funds that contribute to aggregate business profits. This slowdown in investment largely explains why the 1980s were the slowest period for real GNP growth since the 1930s, despite a constant, huge fiscal stimulus.

But, as previously indicated, excess investment in capacity is only part of the story. The 1980s were the final stage of the four-decade-plus investment boom. This final, frenzied phase occurred even though sound fixed investment opportunities were becoming harder to find because of excess capacity and slowing population growth. Firms, institutional investors, and individuals still had inflows of cash that they wanted, or needed, to invest. Funds that ordinarily would have been invested in the production of new, fixed assets instead began to chase after existing assets.

The result was a debt-financed, speculative boom in assets ranging from Rockefeller Center to Rembrandts, from French antiques to Federated department stores. By the end of the 1980s, many of those assets, notably commercial real estate and corporations, had been bought at irrationally high prices and had been paid for almost entirely with debt. Thus, the econ-

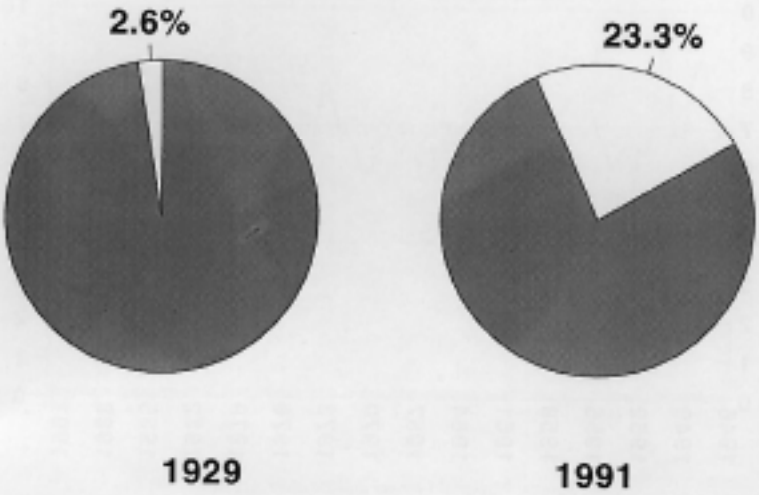
omy was highly vulnerable to any cash flow shortfalls that might arise. This was the legacy of the 1980s' great, pathological, speculative boom in capital assets, even as underlying goods and services markets were weakening under the weight of excessive capacity and extreme competition.

When, at the end of the decade, enough of the overpriced, over-leveraged buildings and businesses failed to earn sufficient returns to meet their debt service obligations, serious financial problems began to emerge and investment began to fall. The boom became a bust. I am not talking about a cyclical boom that gave way to recession, but rather referring to a long-term investment and debt boom that gave way to a depression. Let me offer my definitions of the terms "recession" and "depression." A recession is a period of contracting economic activity that is an adjustment to short-term, excessive production. A recession can reflect excessive speculation in inventories or a short-term disruption in demand, either of which requires the economy to liquidate the excess inventories. A depression is an extended period of severely reduced economic activity, especially investment, and widespread financial failures that is the consequence of long-term, excessive investment. In a depression, the economy has to absorb not merely excess inventories, but excess capacity and excess debt. This kind of adjustment takes much longer, is much deeper, and causes far more trauma than a mere recession.

We are in the early part of a depression, a difficult period that will last for a number of years. Fortunately, however, this is what I refer to as a contained depression. The present situation will not degenerate into a catastrophic plunge like the 1929-33 disaster. The depression is and will remain "contained" because of two mechanisms which will greatly limit the economic contraction and protect the basic integrity of the financial system.

One mechanism is the massive, automatic federal government fiscal stabilizer. As shown in Graph 6, the United States government today spends an amount equal to about a quarter of GNP, compared to less than 3% in 1929. This large government has a powerful, anticyclical fiscal impact. The other containment mechanism is the set of financial safeguards, most notably deposit insurance, that are preventing a collapse of the financial system. Contained or not, this is a depression—a period characterized by falling asset prices, protracted contraction in fixed investment, and the inability of the private economy to adequately support itself.

Graph 6
Federal Expenditures
As a Percentage of GNP



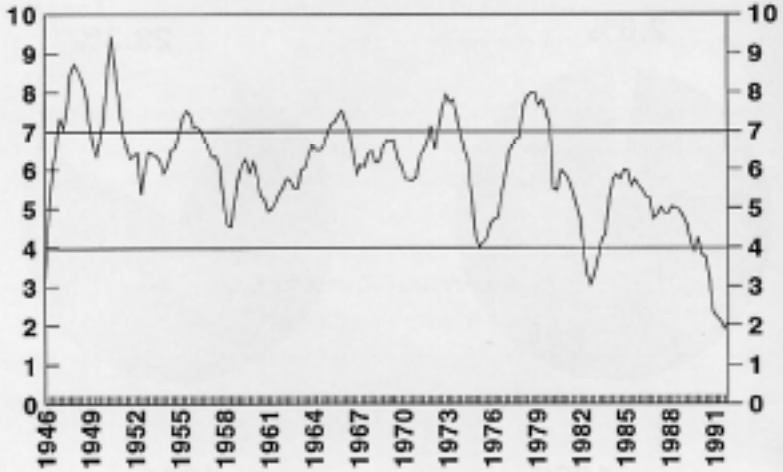
Source: National Income and Product Accounts

I will now offer more evidence to back up my case. First, refer back to Graph 5, which examines gross private fixed investment as a share of GNP and points to the unprecedented plunge in this series in recent years. Compelling as this chart seems, someone is bound to say: "These are gross figures, and do not deduct consumption of the existing capital stock. What about net fixed investment?"

Well, Graph 7 answers that question by illustrating that net investment, too, during the late 1980s was extraordinarily weak vis-a-vis the overall postwar period.

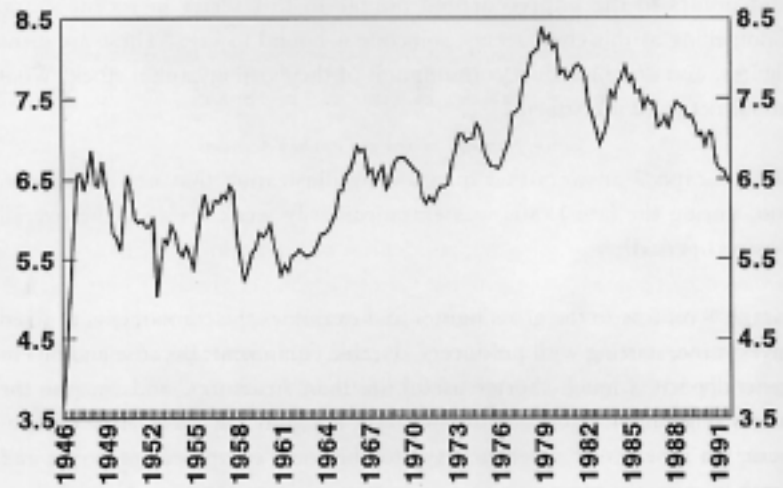
Graph 8 returns to the gross figures and examines the components of fixed investment, starting with producers' durable equipment. Because equipment generally has a much shorter useful life than structures, and because the prices of equipment do not usually have a significant speculative component, we would not expect outlays for business equipment to boom and crash in quite the same way as, say, commercial construction. Nevertheless, we see that investment in equipment swelled as a percentage of GNP until 1979, and since then it has been on a long-term decline.

Graph 7
Net Private Fixed Investment
As a Percentage of GNP



Source: National Income and Product Accounts

Graph 8
Producers' Durable Equipment
As a Percentage of GNP

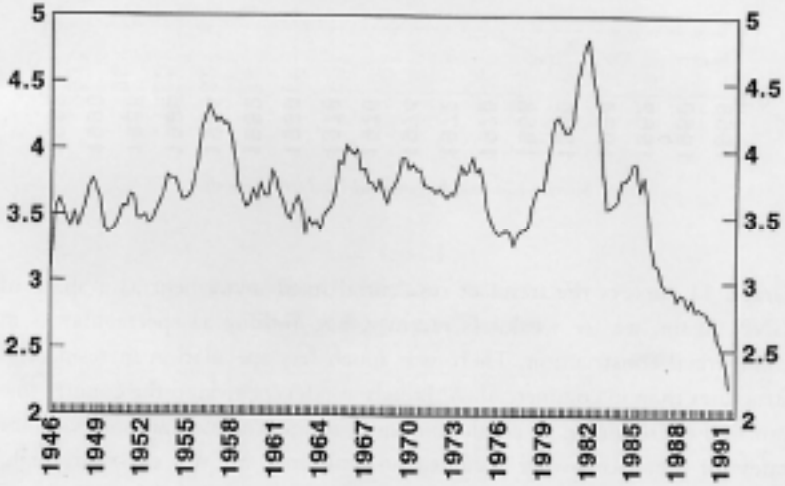


Source: National Income and Product Accounts

Two of three reasons to buy equipment, namely replacement demand and new technology, remain strong. However, the last reason to buy equipment (to expand productive capacity) is greatly weakened. The lack of demand for enlarging capacity has had, and will continue to have, a dampening influence on equipment outlays in the 1990s.

Graph 9 explores the relationship between the other form of nonresidential fixed investment, structures, as a percentage of GNP. The dramatic collapse since 1985 reflects high rates of unused space and associated financial troubles.

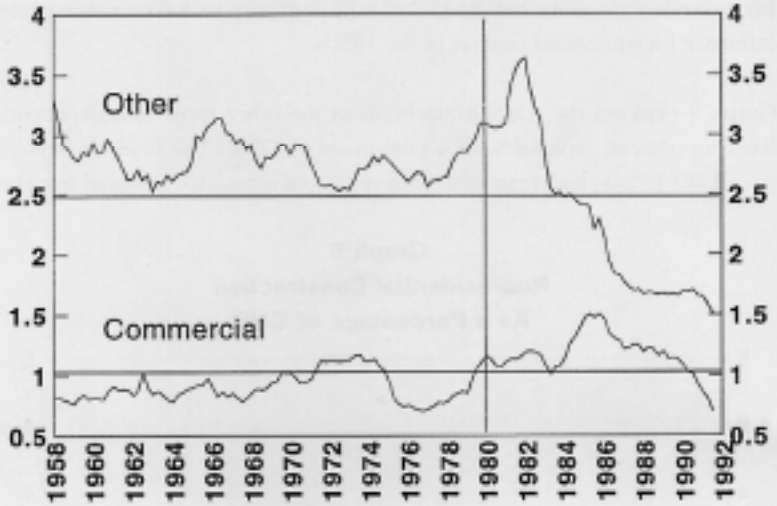
Graph 9
Nonresidential Construction
As a Percentage of GNP



Source: National Income and Product Accounts

Graph 10 further studies nonresidential construction by distinguishing between its commercial and noncommercial components, the latter including industrial structures, utilities, petroleum mining structures, and a few other minor categories. I had earlier asserted that a shortage of sound investment opportunities in the 1980s led investment funds to chase after existing assets. The speculative boom in commercial properties led to vigorous construction of offices, retail buildings, and hotels in spite of the lofty vacancy rates. Notice on this graph that when the construction of "other" private nonresidential structures began to fall apart in the early 1980s, commercial building actually accelerated to fill the void. When commercial construction bubble finally burst, the result was dramatic, and it is far from over.

Graph 10
Nonresidential Construction
Commercial and Other (As a Percentage of GNP)

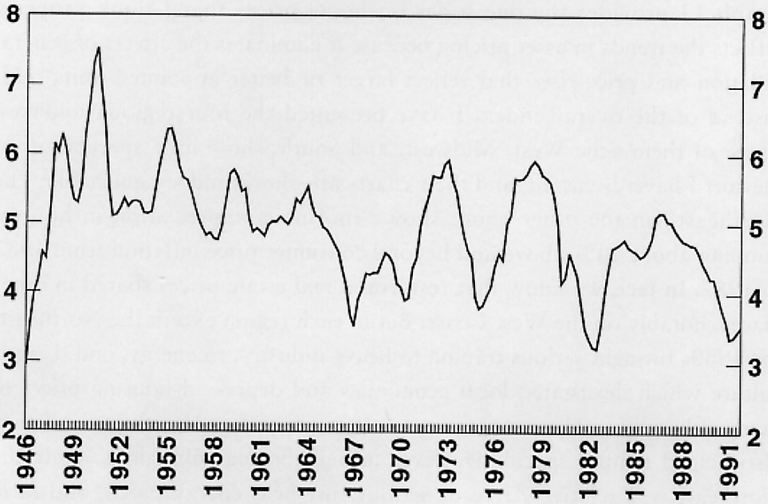


Source: National Income and Product Accounts

Graph 11 surveys the trend of residential fixed investment as a share of GNP. Again, we see weakness recently, but nothing as spectacular as in commercial construction. There was much less speculation in residential structures than in commercial. Although in pockets around the country one can find overbuilding of condominiums and apartments, national vacancy rates for rental or owner-occupied housing units are not strikingly high. The biggest problem with housing is that long-term demand for new housing is declining.

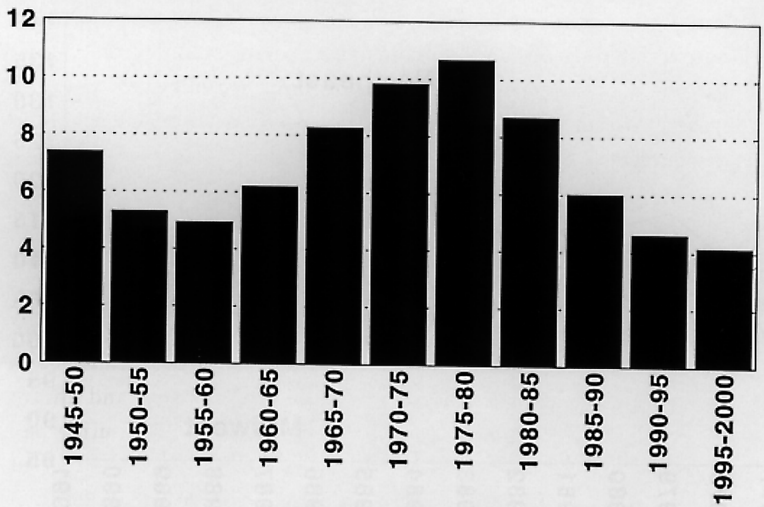
Thus, Graph 12 looks at the pattern of growth of the adult population since World War II. We witness an expansion of the population 20 years of age or older, which is not unusual due to the baby boom generation. Based on population growth alone, one would not have expected a strong home construction in the 1950s and 1960s, yet housing boomed because of the dire shortage of decent housing after a decade of depression and another half decade of war. As pent-up demand was exhausted, the maturing baby boomers reinvigorated housing demand. In the late 1980s, and especially the 1990s, we have neither population growth nor pent-up demand, at least not at present prices.

Graph 11
Residential Construction
As a Percentage of GNP



Source: National Income and Product Accounts

Graph 12
Population, Twenty and Over
Five Year Percentage Changes, 1945-2000

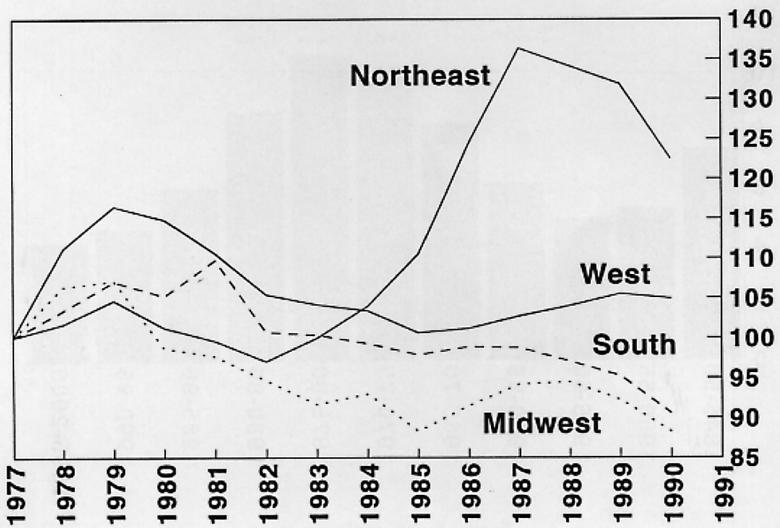


Source: Bureau of the Census

Price is a key issue, because it is in prices more than in construction volume that we see evidence of the 1980s speculation in assets.

Graph 13 provides the one series on home prices that I think properly reflects the trends in asset pricing because it eliminates the effects of general inflation and price rises that reflect larger or better appointed units sold. Instead of the overall index, I have presented the four regional indexes. Three of them—the West, Midwest, and South, show little speculation of the sort I have discussed, and their charts are almost indistinguishable. The Northeast, on the other hand, shows enormous appreciation in houses, jumping about 40% above and beyond consumer price inflation from 1982 to 1987. In fact, we know that residential real estate prices soared in other places, notably on the West Coast. But in each region except the Northeast, the 1980s brought serious trauma to heavy industry, to energy, and to agriculture which devastated local economies and depressed housing prices in many subregions. These occurrences offset price rises elsewhere, and they also helped temper speculative fever in neighboring subregions. Only the Northeast was relatively free of serious rust belt, energy patch, and farm problems.

Graph 13
Price Index of New One-Family Houses Sold, Including Value of Lot
Index/CPI (Ratio Indexed to 1977=100)



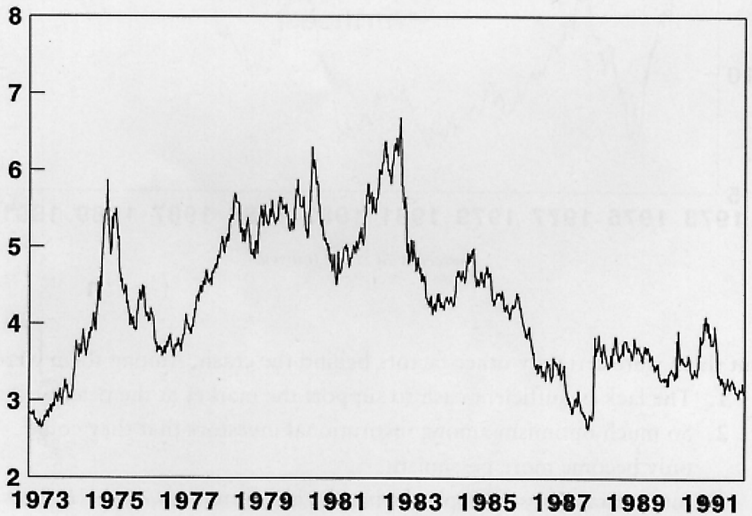
Source: Bureau of the Census

All regions do have something in common. Inflation-adjusted home prices are weakening across the board. I have shown evidence of (i) a buildup of excess productive capacity, (ii) speculation in real estate, and (iii) the beginning of a capital spending retrenchment. There is also ample evidence of speculation in the 1980s in many other types of assets—debt instruments (junk bonds), art and antiques, yachts, and so forth.

How does the stock market fit into this story? Can we say, then, that Black Monday, was a sign that the 1980s speculative boom was coming apart? Yes, but with qualifications. Corporate equities, like other assets, had been the subjects of a broad speculation. Parallels certainly exist between stock market speculation and speculation in other assets. On the other hand, the 1987 crash was not the definitive end to an era of speculation, because the market did recover over the next few years, and other forms of speculation continued after 1987.

Still, the crash was in large part one of several phenomena signaling the end of the speculative era. Certainly, the market was overpriced, based on a number of measures. Graph 14 offers the first of two common valuation measures I would like to discuss, the dividend ratio. Based on the Standard and Poor's 500 companies (S&P 500), during at least the past 25 years, the dividend yield was never as low as it was in 1987 prior to the crash. The only rival was 1972, which I will address shortly.

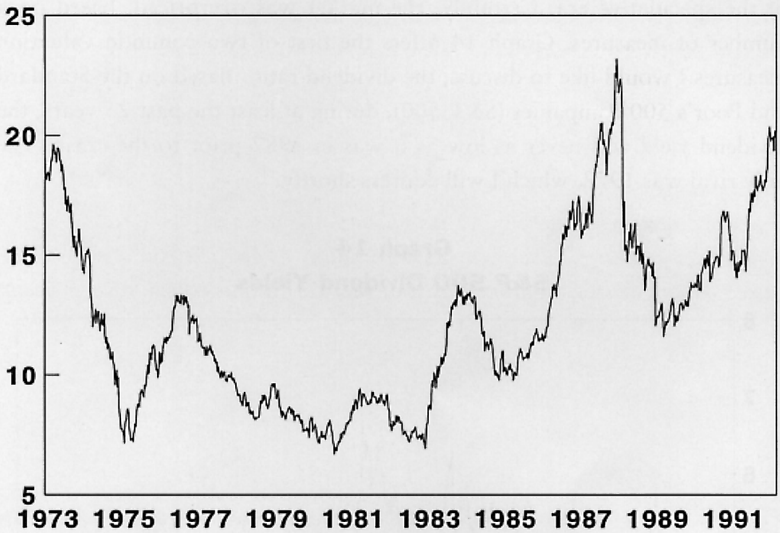
Graph 14
S&P 500 Dividend Yields



Source: Wall Street Journal

As illustrated by Graph 15, the story is similar if we look at another valuation measure, the price earnings ratio. The ratio was higher in 1987 than at any other time in modern history. Now, keep in mind that neither of these valuation measures takes interest rates into account, which is of course critical in any computation of present value based on return rates. Considering interest rates, the case that stock values were excessive in 1987 becomes much stronger. For example, in 1972, when the dividend rate on the S&P 500 was low as at the peak of the market in 1987, interest rates were much lower. Thirty-year Treasury bonds, for example, were only yielding about 6% versus approximately 9% in 1987. If we were to use real yields, the contrast would be even more dramatic. That stocks became overpriced in the mid-1980s, and then crashed, is consistent with my general hypothesis of speculation in existing assets. This point is the key link between the 1987 crash and the ongoing changes in the economy in recent years.

Graph 15
S&P Price to Earnings Ratio



Source: Wall Street Journal

But there were certainly other factors behind the crash. Among them were:

1. The lack of sufficient cash to support the market at the peak prices.
2. So much optimism among institutional investors that they could only become more pessimistic.
3. Interest rates rose sharply during the late summer. Graph 16 shows both short rates, represented by the Federal funds rate, and long

rates, represented by 30-year Treasuries, spurted upward in the two months prior to October, 1987.

4. Market leverage. The advent of futures index trading had destroyed the discipline of a 50% margin requirement, which had been instituted to prevent the excesses that had occurred on 10% margin prior to the 1929 crash. Through the futures market, one could buy stocks on effectively 7% margin.
5. Technology further accelerated the crash. The markets reaction time had become incredibly fast. Program trading, global trading, instantaneous information sharing made it possible for the market to fall at blinding speed and on massive volume.

To summarize, the deteriorating environment for capacity expansion in the United States in the early 1980s opened the door for investment funds to go in other directions, in particular into speculation on existing assets: equities were among them. The Crash of 1987 was not the end of the speculative bubble, but at least the beginning of the end. Also in the late 1980s we saw commercial construction begin to decline, the junk bond market fall sharply, declines in inflation adjusted residential real estate prices, falling prices on collectibles, and so forth. Black Monday, while unrivaled as a financial spectacle, was merely part of the trend in asset pricing.

Americans are a long way from coming to grips with just what is ailing our economy. We will be getting some unpleasant lessons as the consequences of overbuilding and asset speculation continue to unfold. I would not be surprised to see the stock market play a further role in this educational process.

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