

**SHADOW OPEN MARKET COMMITTEE
(SOMC)**

Policy Statement and Position Papers

March 3 - March 4, 1991

IP 91-01

**BRADLEY POLICY
RESEARCH
CENTER**

**Industry Policy Studies
Working Paper Series**

Table of Contents

	Page
Table of Contents	i
SOMC Members.....	ii
SOMC Policy Statement Summary	1
Policy Statement.....	3
Economic Outlook	
Jerry L. Jordan.....	11
A Fiscal Update: It Can't Get Much Worse Than This	
Mickey D. Levy	19
Heinemann Economic Research	
H. Erich Heinemann	25
The Treasury's Proposals to Restructure the U.S. Banking System	
Anna J. Schwartz	51
Modernization of the Financial System: Treasury Recommendations Related to Deposit Insurance	
Robert H. Rasche	57
Some Observations in Recent Changes in Reserve Requirements	
Robert H. Rasche.....	67

March 3-4, 1991

SHADOW OPEN MARKET COMMITTEE

The Shadow Open Market Committee met on Sunday, March 3, from 2:00 PM to 6:00 PM in Washington, D.C.

Members of the SOMC:

Professor Allan H. Meltzer, Graduate School of Industrial Administration, Carnegie Mellon University, Pittsburgh, Pennsylvania 15213 (412/268-2283); and Visiting Scholar, American Enterprise Institute, Washington, DC (202/862-7150)

Mr. H. Erich Heinemann, Chief Economist, Ladenburg, Thalmann & Co., Inc., New York, New York 10022 (212/940-0250)

Dr. Jerry L. Jordan, Senior Vice President and Economist, First Interstate Bancorp, Los Angeles, California 90017 (213/614-2920)

Dr. Mickey D. Levy, Chief Economist, CRT Government Securities, Ltd., New York, New York 10004 (212/858-5545)

Professor Charles I. Plosser, William E. Simon Graduate School of Business Administration and Department of Economics, University of Rochester, Rochester, New York 14627 (716/275-3316)

Professor William Poole, Department of Economics, Brown University, Providence, Rhode Island 02912 (401/863-2697)*

Professor Robert H. Rasche, Department of Economics, Michigan State University, East Lansing, Michigan 48823 (517/355-7755)

Dr. Anna J. Schwartz, National Bureau of Economic Research, New York, New York 10003 (212/995-3451)

*Professor Poole is on leave at Erasmus University.

SOMC POLICY STATEMENT SUMMARY

Washington, March 4 -- The Shadow Open Market Committee said today that worries about a credit crunch are "misleading or mistaken . . . There is no credit crunch," the Committee said. "The problem lies elsewhere. Until recently, the Federal Reserve was not supplying sufficient reserves to maintain the growth of money and credit."

In a policy statement, the Shadow Committee, a group of academic and business economists who regularly comment on economic issues, called on Federal Reserve officials to aim for a long-term objective of noninflationary growth. This "will require the Federal Reserve to provide moderate growth in the money supply (M-2) at an annual rate of 4.5 percent. The monetary base (adjusted for the increase in foreign holdings of U.S. currency) should rise at a similar rate."

The Committee cautioned, however, that "concern for recovery should not be allowed to cause a new round of rising inflation. A 4.5 percent rate would bring money growth back to the average rate since 1987. A 4.5 percent growth rate of M-2 is consistent with recovery in the economy and a declining rate of inflation."

Since mid-1990, the money supply has been growing at a seasonally adjusted annual rate of about 2.2 percent.

The SOMC, which meets in March and September, was founded in 1973 by Professor Allan H. Meltzer of Carnegie Mellon and the late Professor Karl Brunner of the University of Rochester.

The committee stated that the U.S. currently has an opportunity to resolve several long-term problems. "Rebuilding the Kuwait economy will raise the demand for capital and the U.S. exports.

March 3-4, 1991

Instead of relying on increases in domestic consumer spending to stimulate investment and output as in past recoveries, the U.S. should seek to increase saving. Maintaining moderate money growth will help to achieve that goal by avoiding a surge in consumption spending."

"Demands for capital from Eastern Europe, the Middle East and elsewhere will reduce the flow of foreign capital to the U.S. To finance domestic demands from government and the private sector, an increased domestic saving rate is highly desirable. Increase savings and the increase demand for U.S. exports will work to reduce the U.S. trade deficit and make the nation less dependent on foreign capital. This opportunity to resolve long-standing problems should not be thrown away."

The SOMC also urged Congress to "strengthen" proposals by the Bush Administration to overhaul the banking system by adopting mandatory rules to deal with troubled institutions. "Unfortunately, the Treasury proposal replaces the mandatory rules with discretion, leaving room for negotiation and political manipulation."

SHADOW OPEN MARKET COMMITTEE

Policy Statement

March 4, 1991

The recession continues. Many forecasters believe, however, that it will end in the spring or summer. These forecasts assume that real growth will resume because the war is over, consumer confidence has improved and monetary policy has (or soon will) become less restrictive. We share this assessment. Continued money growth, at a moderate rate, will permit the U.S. economy to recover with declining inflation. Recovery will also be fostered by the rebuilding of Kuwait.

The U.S. has an opportunity to resolve several long-term problems. Rebuilding the Kuwait economy will raise the demand for capital and for U.S. exports. Instead of relying on increases in domestic consumer spending to stimulate investment and output as in past recoveries, the U.S. should seek to increase saving. Maintaining moderate money growth will help to achieve that goal by avoiding a surge in consumption spending.

Demands for capital from Eastern Europe, the Middle East and elsewhere will reduce the flow of foreign capital to the U.S. To finance domestic demands from government and the private sector, an increased domestic saving rate is highly desirable. Increased saving and the increased demand for U.S. exports will work to reduce the U.S. trade deficit and make the nation less dependent on foreign capital. This opportunity to resolve long-standing problems should not be thrown away.

Meeting these long-term objectives will require the Federal Reserve to provide moderate growth in the money supply (M-2) at an annual rate of 4.5 percent. To accomplish this objective, the monetary base (adjusted for the increase in foreign holdings of U.S. currency) should rise at a similar rate.

March 3-4, 1991

We welcome the Federal Reserve's renewed attention to money growth. We urge officials to meet their announced targets for 1991. We caution, however, that weekly or monthly rates of change in the money supply are not reliable as indicators of the thrust of monetary policy. What matters is whether moderate money growth is maintained for intervals of three to six months.

Concern for recovery should not be allowed to cause a new round of rising inflation. A 4.5 percent rate would bring money growth back to the average rate since 1987. A 4.5 percent growth rate of M-2 is consistent with recovery in the economy and a declining rate of inflation

The Dollar

A flexible exchange rate works to stabilize the economy. A market-induced decline in the dollar against the currencies of expanding economies—particularly the mark and the yen—sustains the growth of exports to those countries, and to other countries that fix their exchange rates to those currencies. It also contributes to U.S. exports to other nations where U.S. producers compete against exports from Germany, Japan and other countries.

The relatively robust growth of exports during the recession has been fostered in part by the decline in the dollar. Recovery of the economy will work to strengthen the dollar, reducing export demand as domestic demand rises. The strengthening of the dollar in recovery reduces upward pressure on import prices and works to enhance price stability.

It would be a mistake for the Treasury and the Federal Reserve to intervene to slow the decline of the dollar. To be effective, intervention would have to slow the growth of money. That would be opposite to the Fed's announced intention and opposite to a policy of encouraging recovery. If

the intervention is sterilized, then it is a meaningless exercise that risks taxpayers money in speculation on future foreign exchange rates. We repeat our recommendation to Congress: Prohibit or limit Treasury and Federal Reserve intervention to currency markets.

The "Credit Crunch"

Much has been written about a "credit crunch." Most of it is misleading or mistaken. Analysts appear to have confused the symptoms and the causes of recent bank credit conditions. The ratio of bank loans to deposits normally declines during periods of recession. Aggregate bank data show that to date this process has barely begun. In fact, total bank credit has increased, albeit slowly.

Some analysts argue that a combination of tighter regulatory standards, reduced lending by commercial bankers, including Japanese bankers and banks' efforts to meet increased capital requirements caused a "credit crunch." All of these changes have occurred. However, they have not reduced the overall availability of credit.

To expand credit and money, the financial system must acquire reserves. Banks can hold reserves either as currency in vaults or ATM machines or as deposits at Federal Reserve banks. If a bank does not use its reserves to expand credit and deposits, it sells its reserves to another bank that does.

If banks as a group do not use all their reserves, Federal Reserve weekly statements show "excess reserves" in the banking system. If banks have become reluctant to lend, as exponents of the credit crunch suppose, banks' excess reserves would have increased.

There has been no increase in "economic" excess reserves in the financial system. Equally, there is no credit crunch. The problem lies elsewhere. Until recently, the Federal Reserve was not supplying sufficient reserves to maintain the growth of money and credit. In late 1990, reserves

March 3-4, 1991

were flat. If the Federal Reserve had provided adequate reserves to reach the mid-point of its target for money growth during the second half of 1990, bank credit would have increased at a faster rate. Short-term rates would have fallen faster.

This conclusion is not based on "monetarism." Faster reserve growth and lower interest rates stimulate borrowers to demand more loans and improve the quality of existing bank portfolios and the attractiveness of new loans—the chief problems cited by those who believe there is a credit crunch. The higher quality of bank portfolios would have come about in four different ways:

- (1) Lower interest rates would have increased the capital values of the banks' existing assets, particularly long-term assets underlying real estate loans.
- (2) Moderate money growth (and lower interest rates) would have led to increased outlays—for rentals in vacant properties, for new housing, for autos and other durables on which financial institutions lend.
- (3) Increased spending and output would have improved confidence, incomes, and earnings.
- (4) Rising incomes and corporate earnings would have reduced defaults, "slow pays" and bankruptcies.

Market participants recognize these arguments. Once money growth resumed, bank shares and share of financial firms generally began a strong recovery from their lows of last fall. The recovery of bank shares shows, we believe, that the talk of a credit crunch will disappear if the Federal Reserve supplies the reserves adequate for sustained economic recovery with falling inflation.

Excess Reserves and the Change in Reserve Requirement Ratios

In December, the Federal Reserve reduced required reserves ratios for non-personal time and saving deposits and for Eurocurrency liabilities to zero. The action lowered required reserves by \$13-billion. Open market operations subsequently withdrew an equivalent amount of reserves, so total bank reserves did not increase.

With lower reserve requirement ratios, each dollar of new or additional reserves will support a larger volume of bank credit and money. Since required reserve balances do not earn interest, lower reserve requirement ratios increase bank earnings by reducing the amount of assets held idle per dollar of deposits.

This traditional argument is correct only if legal reserve requirement ratios force banks to hold reserves above the amount needed for day-to-day operations. Banks currently hold 60 percent of their reserves, approximately \$28 billion, as vault cash, i.e. currency. A large part of vault cash is held in automatic teller machines (ATMs). Reserves at Federal Reserve banks are used as transactions balances to pay for clearing checks and transactions on Fedwire.

If a bank's demand for reserves for vault cash and clearing exceeds the amount of reserves required to be held for legal reserve requirements, the Fed would classify the difference as excess reserves. *Measured* excess reserves would increase but *economic* excess reserves would be zero for such banks; the banks would continue to demand these reserves following a reduction in reserve requirement ratios.

The difference between measured and economic excess reserves influences our interpretation of the recent reduction in the reserves that depository institutions must hold:

March 3-4, 1991

- (1) The volatility of measured excess reserves and the federal funds rate have increased in the last two months. The increases may reflect changes in the banks' demand for reserves. The Federal Reserve uses excess reserves as a principal guide to operations affecting the federal funds rate. The interpretation of any level of measured excess reserves differs from the past if banks desire to hold more reserves than prescribed by legal requirements.
- (2) The recent reduction in required reserves differs from previous changes. If banks need to hold on to a portion of the reserves that the Federal Reserve released for day-to-day operations, then the amount of "liberated" reserves will be less than \$13-billion. This will require a change in the method of computation of the monetary base by the Federal Reserve Bank of St. Louis and the Board of Governors. Current techniques count all these reserves as liberated.
- (3) The net effect of the recent reduction in reserve requirement ratios and offsetting open market sales may have been a tighter monetary policy. This would occur if the Federal Reserve were to withdraw economic excess reserves in the mistaken belief that they were measured excess reserves. To be certain, we must know more about individual bank's reserve holdings than outsiders can obtain from aggregate data.

Treasury Proposals for Bank Reform

The Treasury has released a three part proposal for changes in the financial system. The Treasury proposes changes in: (1) the number of agencies supervising banks and the scope of their authority; (2) the deposit insurance system; and (3) the ownership and permissible activities of banks. We discuss topics (2) and (3).

Action to broaden banks' powers by repealing the McFadden Act and the Glass-Steagall Act is long overdue. The Treasury's proposed reforms of deposit insurance are generally in the right direction, but the proposals are cautious and do not deal adequately with the system's problems.

The McFadden Act prohibits most banks from having branches across state lines and limits interstate banking. This law has increased banking risk by limiting opportunities for diversification

of earning assets and deposits. Glass-Steagall separates commercial and investment banking and prevents banks from engaging in the marketing of corporate debt and equity, or selling mutual funds.

The Treasury proposal lifts these restrictions for banks with sufficient capital. Banks in many countries have been permitted to engage in these activities. U.S. banks are permitted to engage in investment banking overseas. These parts of the Treasury's proposal should be enacted as part of a comprehensive reform.

Comprehensive reform must include reform of deposit insurance. Experience with the thrift industry demonstrates what can happen if financial institutions are allowed to choose assets without restrictions while depositors are fully insured. The Treasury is aware of this risk, but it did not treat the problem adequately. The Treasury proposal adopts some parts of the proposal by George Benston and George Kaufman which has been endorsed by the Shadow Financial Regulatory Committee. The main features of the Benston-Kaufman proposal are:

- (1) Mark assets and liabilities to market to the fullest extent possible;
- (2) Rely on the market value of bank capital, including subordinated debentures to supplement deposit insurance and safeguard the insurance fund;
- (3) Institute mandatory rules that restrict dividends and a bank's asset growth, if bank capital falls below a minimum 6 percent of assets; remove bank management and sell or close the bank if the market value of bank capital continues to decline as a share of the bank's assets.

Unfortunately, the Treasury proposal replaces the mandatory rules with discretion, leaving room for negotiation and political manipulation. The Treasury relies on book values instead of

March 3-4, 1991

market values, leaving open opportunities for creative—more accurately destructive—accounting standards.

Congress should strengthen the Treasury proposals and adopt the new standards.

ECONOMIC OUTLOOK

Jerry L. JORDAN
First Interstate Bancorp

Summary

The resiliency of the U.S. economy will be tested in 1991. Once the depressing effects of war fears, restrictive monetary policy, and high oil prices are lifted, we believe this resiliency will result in a return to growth.

Now that the Middle East war is over, the chances are much better that the recession will also end soon. Without the Middle East crisis, the economy would probably have been flat in the second half of 1990, and an actual contraction would have been avoided. Savings and loan industry problems, regulatory pressures on banks, high corporate indebtedness, the fiscal fiasco and mushrooming federal budget deficit, and restrictive monetary policy were enough to retard growth from the normal 2.5-3.0 percent rate to about zero.

We believe that the "oil shock" stemming from the invasion of Kuwait and the plunge of business and consumer confidence as the crisis deepened were key factors that caused real GNP to contract in the fourth quarter of 1990 and in early 1991. If this interpretation of recent events is correct, the end of the conflict will be followed by an early end to the recession.

The cessation of hostilities should result in resumption of previously postponed hiring, ordering, and capacity expansion by business, together with restored household spending for autos, appliances and other consumer durables, would produce positive real output growth for the second quarter.

March 3-4, 1991

Inflation this year will be below last year's rate. The "oil shock" in 1990 added 1.5 to 2 percentage points to the rise in the consumer price index for the year. With falling oil prices this year, the measured inflation rate will be biased to the low side. From year-end to year-end, consumer prices are expected to rise less than 4 percent.

Lower inflation assures that interest rates will remain lower than they were previously. Long-term bond yields will fall in the weeks ahead as oil prices and inflation decline. Short-term market rates may have already seen their lows for the year if the rebound in economic activity strengthens credit demands quickly.

The weakness of the housing and automobile industries in late 1990 was partially attributable to war fears. The end of hostilities is expected to be followed by at least modest increases in auto sales and production, home sales, and housing starts. Industries whose sales are closely related to consumer spending, such as furniture and appliance manufacturing and retail trade, should also see moderate increases in demand in the months ahead. Telecommunications, pharmaceuticals, and food processing are among those industries likely to experience stronger growth in sales and production this year.

Abroad, economic growth has been slowing in most major industrial countries. A few of them, including the United Kingdom and Canada, are experiencing recessions. Nevertheless, growth in Germany and Japan is expected to remain positive, maintaining world trade growth and helping to narrow the U.S. trade deficit further. The dollar fell considerably on foreign-exchange markets during the crisis. Improved prospects for an early end to the war have been accompanied by recovery of the dollar. Lower inflation this year should offset negative effects on the dollar from lower bond yields. On balance, the dollar is not expected to change significantly in 1991.

U.S. Economy

The downturn in the U.S. economy has now been sufficiently deep, long, and widespread to qualify as a bona fide recession. Whereas most of the job losses have been in manufacturing and construction, work forces are also being cut in various parts of the service sector, ranging from wholesaling and retailing to various financial and business services. Only health care seems to be immune from significant layoffs.

The economy has been decelerating since 1987, when real GNP growth peaked at 5.0 percent. Last year, real GNP edged up only 0.3 percent. On a quarterly basis, growth has remained below a 2 percent annual rate since early 1989, finally turning negative in the last three months of 1990.

Two primary forces pushed the economy into recession last year: restrictive monetary policy and the Middle East crises. Since 1987, the Federal Reserve has restrained reserve and money growth in an effort to curb inflationary pressures. Bank reserves increased only 0.3 percent in 1990, while the broader measure of the money supply, M-2 (currency, checking & savings accounts, and small CDs), expanded only 3.9 percent, the slowest growth rate in at least thirty years. Contrary to the common perception that tighter bank lending standards have caused the slowdown in money and credit growth (the "credit crunch" theory), the root cause of that slowing was the Fed's low injection of reserves into the banking system. The monetary authorities resisted market pressures leading to lower short-term interest rates. The result was that the 2.2 percent monetary growth (M-2) in last year's fourth quarter was both the lowest growth rate in 30 years, and was significantly below the bottom of the Fed's target range of 3-7 percent. Another slow quarter of money growth in this first quarter of 1991 is assured. By the spring quarter, however, the Fed is expected to foster a sharp increase in monetary stimulus.

March 3-4, 1991

Monetary policy might have succeeded in purging the remaining inflationary forces in the economy without reducing real output had it not been for Iraq's invasion of Kuwait last August 2. Our estimates show that without the impact of the Middle East crisis, real GNP would have been about flat instead of declining at an annual rate of 2.0 percent, as indicated by the revised estimates of GNP for the fourth quarter of 1990. Because the United States is a net energy importer, a wealth loss occurred when oil prices suddenly jumped. This was reflected in a decline in real incomes for households and, subsequently, in lower consumer spending. Plunging consumer confidence magnified the drop in consumer outlays for durable goods, nondurables, travel, and other services, as well as aggravating weakness in the housing market.

Although recent news on the economy has been almost uniformly negative, certain factors should prevent a long recession. First, the Federal Reserve has responded to the downturn and begun to revive bank-reserve and money growth. Bank lending standards are likely to remain more conservative than in the past, but that change will imply generally greater collateral and equity requirements, rather than a total shutdown of new credit. Non-bank institutions may also assume a greater role in lending. Second, inventories were held at low levels, even in the face of weak final demand, as firms reacted quickly to slowing orders and sales. Further, massive cuts in output and employment will thus not be necessary to slash stocks of unsold goods. Third, the dollar's decline last year will help to bolster exports, while also helping firms that compete against imports.

Two key factors will temper the pace of the eventual recovery. First, debt loads did increase during the 1980s for corporations and households, which could limit new investment and spending. Gains in the stock markets and/or real estate values will, however, improve debt/equity positions. Second, the excess supply of office, other commercial, and hotel space will limit new nonresidential construction. Although such building constitutes less than 3 percent of real GNP, in last year's fourth quarter it accounted for nearly one quarter of the total drop in output.

Post-War Outlook

The early and favorable end of the war means the recession will turn out to be short and shallow. We would expect the price of West Texas Intermediate crude oil to drop to an average of slightly below \$17 in the second quarter of 1991, the level that prevailed in the second quarter of 1990 before Iraq launched its more aggressive position in the oil market and in the Middle East region. Cutbacks in oil production by such countries as Saudi Arabia and a revival in economic growth would then push prices back to an average of \$19 a barrel by the fourth quarter of this year and \$20 a barrel in 1992.

The Federal Reserve is expected to continue to be aggressive in expanding bank reserves and the nation's money supply. An environment of lower oil prices and inflation rates and a moderately stronger dollar removes some of the previous constraints on the Fed's willingness to ease monetary policy. An acceleration of M-2 growth to over 6 percent in the second quarter will boost nominal GNP growth. Monetary expansion of 4.6 percent is then assumed for 1992.

The risk for monetary policy in the near-term is that the rebound in economic activity and credit demands could be surprisingly strong, thus reigniting expectations of accelerating inflation. Both after the ending of credit controls during the Iran Hostage crisis of 1980 and after the stock market crash of 1987, the monetary policymakers found the resiliency of the economy to be difficult to contain. The Fed initially failed to constrain surging demand in 1980, so the hard landing of 1981-82 became unavoidable after inflation soared to double digit rates. In the spring of 1988, the Fed was successful at cooling inflation expectations at an early stage, thus avoiding the necessity of a recessionary hangover. Now, in the early months of the 1991 recovery, the Fed will once again be faced with difficult decisions about too little and too much stimulus.

March 3-4, 1991

Inflation in terms of consumer prices is expected to average slightly under 3 percent in the first half of 1991, as falling oil prices combines with the impact of past monetary restraint to limit wage and price increases throughout the economy. In the second half of the year, inflation should generally average about 4 percent. We expect inflation to remain below 4 percent in 1992 as the delayed impact of prior monetary tightness remains effective. The restrictive monetary policy pursued for the past four years will constrain the "core" rate of inflation, while the decline in oil prices would unwind the temporary run-up in consumer prices experienced in the latter half of 1990. Consequently, whereas consumer prices jumped 6.3 percent in 1990 on a fourth-quarter-to-fourth-quarter basis, prices would rise about 3.4 percent in 1991 and 3.8 percent in 1992.

Short-term interest rates may have already reached the low points for this cycle in early 1991. We expect the federal funds rate to be held at about 6.25 percent until mid-year, down substantially from 8.25 percent last July. The bank prime rate would likely fall to 8.5 percent and remain there for the balance of 1991. As the economy begins to gather momentum later this year, short-term rates will again start to trend higher.

Events in the Middle East have dominated movements in the long-term bond market since last August. The end of the War and lower oil prices should allow long-term yields to drop below 8 percent as inflation rates fall. The break in oil prices could be expected to push the yield on 30-year Treasury bonds to a low approaching 7.5 percent from slightly less than 8.0 percent in mid-February and over 9.0 percent last September. Then, in 1992 long-term Treasuries should average about 8.0 percent. Mortgage rates for 30-year fixed-rate loans could fall below 9.25 percent in the second quarter of 1991 and then average close to 9.5 percent for the remainder of the 1991-92 forecast period.

Consumers and business firms deferred major purchases, hiring, and investments as long as concern over the Middle East persisted. The end of the war is expected to trigger a strong rebound in consumer and business confidence. Households that had deferred buying of cars, appliances, or homes will go forward with those purchases. Businesses, which had temporarily shelved various investment projects, would launch those plans. Although we expect a decline in first-quarter real GNP, the economy would be moving significantly forward by the second quarter. We estimate that growth would average about 2.5 percent in the final three quarters of 1991 before moderating to slightly about 2 percent in 1992.

Restoration of previously postponed economic activity will improve substantially the various monthly statistical reports. Unemployment is expected to move somewhat higher for a few months into the recovery, although slow growth of the labor force would help prevent a sharp increase. We estimate that the civilian jobless rate would reach a peak of about 6.3 percent in the latter part of 1991 and then gradually recede to 6.0 percent by the end of 1992.

Corporate profits are expected to finally revive modestly as the upturn in sales flows quickly to the bottom line of various business firms, and earnings would start to improve by this year's second quarter. For 1991 as a whole, after-tax economic profits would decrease about 2 percent after dropping nearly 8 percent in 1990. A rebound of about 11 percent could be expected for 1992.

Because much of the equipment and supplies expended in the war may not be replaced and because of funding support from other nations, Middle East costs will not alone cause the federal budget deficit to skyrocket. Deposit insurance costs and the recession's impact on personal and corporate tax receipts, however, are likely to push the deficit in fiscal 1991 to about \$310 billion, followed by a revenue shortfall of \$300 billion in fiscal 1992.

March 3-4, 1991

A general rise in consumer sentiment and a rising stock market should help sales of autos and light trucks reach 13.4 million in 1991. Such a level would be off about 4 percent from last year's total, but costly incentives are likely to be used much less extensively during the current year. Sales in 1992 would then expand to 14.8 million vehicles.

A pickup in the real estate market should encourage new building activity, with new housing starts edging up 2 percent this year to 1.21 million units. Housing starts would improve further to 1.44 million units in 1992.

A FISCAL UPDATE: IT CAN'T GET MUCH WORSE THAN THIS

Mickey D. LEVY
CRT Government Securities, Ltd.

Federal spending and deficits are soaring and budget policy is in more disarray than usual:

- The huge temporary cost of the Middle East War, the savings and loan restructuring, and the adverse budgetary impacts of recession have overwhelmed the sizable tax hikes and spending cuts of the Omnibus Budget Reconciliation Act of 1990. Excluding the costs of the war, deficits should exceed \$300 billion in fiscal years 1991-1992, \$200 billion excluding both the costs of the war and deposit insurance.
- Even without these temporary costs, nondefense spending has been rising over 10 percent annually since FY1991, and a legislative backlog for expanding domestic programs is exerting pressure for more discretionary spending, despite the new set of constraints imposed by the Budget Enforcement Act.
- Once the temporary costs of the war, the S&L cleanup, and the recession unwind, a declining trend in the structural deficit will become more apparent, but improvement will fall far short of Administration expectations. Moreover, even though the war and S&L are not permanent outlay increases that add to the structural budget deficit, they are extremely costly, and their various impacts should not be covered by the focus on the structural deficit.
- The Budget Enforcement Act adds flexibility and a new set of teeth to Gramm-Rudmann-Hollings (GRH), but it separates budget categories in a way that prevents potentially consecutive budget tradeoffs, and exerts the wrong set of constraints on budget policy. Moreover, its complexity will encourage circumvention.
- Presently, several recommendations are in order: (a) attempts to raise taxes substantially to narrow the temporary war-related bulge in spending and deficits should be avoided, (b) the new discretionary spending limits of the Budget Enforcement Act should be strictly implemented, and attempts to circumvent the *intent* of the constraints be rejected, and (c) any proposed payroll tax cuts must be matched by benefit cuts, as required by the new act. A broader objective involves reducing non-means-tested entitlement outlays and reallocating federal resources toward investment-oriented spending.

Even excluding the costs of the war, federal spending will rise significantly in FY1991-1992, and deficits will reach all-time levels, probably exceeding \$300 billion, or 5 percent of GNP. Approximately \$100 billion in each year will be due to the temporary costs of deposit insurance.

March 3-4, 1991

Excluding the costs of both the war and deposit insurance, deficits will still increase to nearly 4 percent of GNP in 1991 and remain about 3 percent in 1992, even though the sharp tax increases imposed by the budget accord of 1990 will push tax revenues over 19.5 percent of GNP. With the exception of the 1980-1982 recessionary period, this will be the highest back-to-back level of taxes since World War II.

Excluding the war and S&L cleanup, spending has been accelerating, increasing an estimated 7.5 percent annually from 1989-1991, and rising as a share of GNP. Domestic spending will increase over 10 percent annually, while defense spending (excluding the Gulf conflict) is projected to decline in real and nominal terms. There have been sharp increases in non-means-tested entitlement programs, particularly Medicare, and recession-related increases in means-tested entitlement programs such as Medicaid, food stamps, supplemental Security Income and unemployment insurance. There has also been a marked pick-up in spending for space, drugs, energy, public housing, and certain other nondefense discretionary programs. These rapid spending increases generated a high base for implementing the spending constraints of the budget accord of 1990, lessening their true restrictiveness. Despite these spending initiatives, outlays for entitlements and other mandatory programs now constitute over half of all federal spending. Moreover, only one-sixth of all entitlement spending is for means-tested programs, while five-sixths are for non-means-tested programs such as social security, Medicare, and other retirement programs.

The Administration's budget for FY1992, which reflects the impact of the 1990 budget accord, proposes a slowdown in spending growth, a pick-up in tax revenue growth, and a record-breaking deficit. It includes a large 8.7 percent rise in spending for entitlements and other mandatory spending (excluding deposit insurance), following a projected 12.5 percent rise in 1991, and a 9.7 percent rise in nondefense spending (excluding net interest and deposit insurance). After 1992, the budget proposes a sharp slowdown in spending, taxes that continue to rise gradually as a percent of GNP,

and deficits that plummet close to zero by 1995. Of the budget accord's legislated deficit cuts of nearly \$500 billion in FY1991-1995, over \$150 billion are increases in taxes, user fees, and Medical premiums. Over half of the cuts are backloaded into the last two years of the projection period (1994-1995), and they rely heavily on the usual unrealistic assumptions of rapid economic growth and declining real interest rates. Moreover, approximately one-third of the total projected deficit cuts derive from successful future implementation of the discretionary spending caps. Even before the Gulf War, the dramatic deterioration in the prior current services budget outlook had overwhelmed the magnitude of the legislated savings, and the alleged accomplishments of the budget accord were seemingly overblown and unrealistic.

The Administration's budget largely excludes the cost of the war. At this time, there are no official estimates of the armed conflict, although unofficial estimates are in a wide range around \$60 billion. A sizeable but unknown portion of these costs will be paid for by foreign governments. The residual should be recognized as temporary federal outlays that contribute to national security; spreading the burden of the costs over a generation of taxpayers by borrowing is preferable to significantly raising taxes and imposing the entire tax burden on current taxpayers. Any U.S. military presence in the Gulf following the conclusion of the armed conflict may partially or fully offset earlier projected permanent declines in real defense outlays.

Total budget outlays for deposit insurance are expected to exceed \$100 billion each in FY1991 and 1992, before slowing sharply in 1993-1994. The vast majority of these temporary budget costs are additional working capital for the Resolution Trust Corporation's cleanup of insolvent S&Ls. These costs are a realization of prior government obligations; they have already been spent. The net costs of taxpayers depend on the market value of the assets the government is acquiring and the extent to which their sales can offset the recent increases in working capital and subtract from federal budget outlays.

March 3-4, 1991

Official budget projections by the Administration and CBO show sharp declines in their current services, baseline, and structural deficits. These projections exclude the costs of the war and S&L cleanup, and assume full implementation of the spending caps imposed by the 1990 budget accord. Given their economic and technical assumptions and what they exclude, they are reasonable projections. However, just because the costs of the war and S&L cleanup are not permanent, and thus not part of structural or standardized budget projections, does not mean they are costless. They are extraordinarily costly to taxpayers, involve sizeable reallocations of national resources, and adversely affect long-run potential growth. The sheer magnitude of these temporary events diminish the comprehensiveness of the interpretative value of structural budget projections.

The Budget Enforcement Act adds flexibility to GRH by adjusting the deficit targets to economic conditions and adding several sets of constraints to several broad clusters of spending programs. It places dollar caps on nondefense, defense and international discretionary programs, limiting their outlay growth to less than projected inflation. Through 1993, separate spending caps are applied to these discretionary programs; after then, a single spending cap applies to them. The second cluster, which includes entitlement programs such as social security and Medicare is *not* subject to dollar caps, but is constrained by a so-called pay-as-you-go regime wherein any legislated budget increase must be matched by a tax increase. The third spending category, net interest outlays, are unaffected by the Budget Enforcement Act; the costs of the war and deposit insurance are also treated separately.

The advantage of these constraints on discretionary programs is to force a trade-off among spending within the separate program clusters, while the pay-as-you-go provision for entitlement programs is designed to thwart legislative actions that would widen deficits, such as recent efforts to lower payroll taxes without cutting social security benefits. These provisions may prove valuable in controlling new spending initiatives, particularly during recession.

However, several disadvantages may undermine the effectiveness of the new budget process, and therefore jeopardize realization of the budget accord's deficit cuts. While caps on discretionary domestic, (non-war-related) defense and international programs limit their spending, the law provides that caps in this cluster may be adjusted for changes in economic conditions, budget emergencies, and technical assumptions. In this cluster, as elsewhere, there is room for policymakers to create loopholes sufficiently large enough to circumvent the intent of the new process. Potential loopholes in the constraints on entitlement programs are already being tested. Thus, once again, whether the new budget process is effective depends on the resolve of the budget policymakers. GRH never worked as intended and finally crumbled when the available array of accounting tricks failed to achieve the deficit targets. Unfortunately, by itself, this new process does not necessarily improve the outlook for fiscal responsibility.

Another significant weakness is that the new process does not address the undesirable mix of federal spending, and only reinforces the recent trend of more spending on consumption-oriented entitlement programs and less on investment-oriented discretionary programs. It forbids tradeoffs between the broader budget clusters, and places absolute limits on domestic discretionary programs, so that a cut in spending in a non-means-tested entitlement program may not be used to find an increase in any discretionary program. It does permit increases in the entitlement programs scheduled under current law. As with GRH, which excluded social security and most non-means-tested entitlement programs from sequestration, this new set of rules imposes the wrong set of constraints on the budget process. Imposing, instead, pay-as-you-go and strict dollar spending caps on entitlement programs, while not subjecting investment-oriented domestic discretionary programs to these provisions, would lead to a more efficient growth-oriented allocation of federal spending.

March 3-4, 1991

HEINEMANN ECONOMIC RESEARCH

E. Erich HEINEMANN
Ladenburg, Thalmann & Co., Inc.

Federal Reserve Chairman Alan Greenspan has assured Congress that the current recession would be short and mild. "The odds favor a moderate upturn," he said. The most likely forecast, he asserted, "would be one in which the economy bottoms out and starts up reasonably soon."

Mr. Greenspan's views are in line with the simplistic view—at the White House and on Wall Street—that business activity will rebound now that the Gulf War has apparently ended. Consumers, buoyed by a surge of jingoistic pride, will rush back to the stores and start spending

Real life is more complex. Real consumer purchases of goods declined at an annual rate of 8 percent over the past six months because people were out of work and incomes were down. Real wages and salaries posted a steep decline in January. They are now lower than in January 1989. That's a long time between drinks. In turn, companies are not hiring new workers because they have been losing money with the employees they already have. Improved prospects for profit, rather than an ephemeral swing in consumer sentiment, will signal the end of the recession. Mr. Greenspan's forecast for 1991 is not likely to prove any better than his prediction a year earlier that the risk of recession in 1990 was one in five.

While his statement was doubtless designed to deflect Congressional anger at the Fed for starting the recession, it also had a troubling message for the capital markets. For the time being, the central bank is not willing to allow further declines in short-term interest rates. As if to underscore these remarks, the Federal funds rate hit 20 percent the day before Mr. Greenspan testified, and 10 percent while he was speaking.

March 3-4, 1991

This means that economic activity still has a way to go before it hits bottom. As sales fall and unemployment rises, the Federal Reserve will eventually be forced to allow rates to decline further. Sadly, these actions—like the Iraqi withdrawal from Kuwait—will be too little and too late. The 1990-91 recession will be longer and deeper than need be.

True, large amounts of apparently surplus reserve funds have suddenly appeared in the banks. Nevertheless, this was not a signal of easy money. The Fed is not pumping out money that banks are unwilling or unable to use. Rather, these "excess" reserves can be traced to technical problems that followed action by the Federal Reserve last December. At that time, the Fed cut by \$12 billion the amount that banks are legally required to hold as "reserves" against their deposits.

In theory, the cut was designed to help the banks to lend or invest funds which otherwise would be held in non-earning accounts at the Fed. In practice, the \$12 billion the Fed released was sopped up by the central bank in routine operations. Because the Fed sterilized its own action, the cut in reserve requirements had little monetary impact. As a result, the process of paying off debt and rebuilding liquid assets—an essential part of every economic recovery—has barely begun.

In the summer of 1989, Mr. Greenspan warned Congress that he could not "rule out a policy mistake as the trigger for a downturn." He told the House Subcommittee on Domestic Monetary Policy that "we at the Federal Reserve might fail to restrain a speculative surge in the economy or fail to recognize that we were holding reserves too tight for too long." He added that the Federal Reserve was seeking to avoid ... an unnecessary and destructive recession." The irony is that subsequent Fed actions sharply increased the probability of a significant drop in the economy.

If truth was the first victim of the war, then candor was the first casualty of the recession. Mr. Greenspan blamed the slump on Saddam Hussein, everybody's favorite scapegoat, and on the

so-called credit crunch. The reluctance of bankers to lend, he claimed, "was having a dampening effect on the spending of those borrowers without ready access to alternative sources of funds at comparable interest rates."

In fact, the Federal Reserve itself bears principal responsibility—both for the downturn and for the sluggish upturn that is likely to follow it. Fed actions resulted in a prolonged drop in monetary growth. Total reserves held by U.S. banks rose an annual rate of less than 1 percent over the past four years. This was an unusually long period for such "high-powered" money to be frozen.

Total reserves, of course, are raw material for the money supply. Changes in reserves (which the Fed controls directly) correlate closely with changes in the broad-based measures of the money supply such as M-2 (which the Fed can only influence indirectly).

The increase in bank reserves over the past four years was well below a rate that would have been consistent with continued economic expansion. While preliminary data suggest that reserves rose last month, in a longer perspective money is still tight.

Because of the Fed's restrictive policy, business activity first stalled and subsequently started to decline. The surge in energy prices and the collapse in consumer confidence last summer affected the timing of the slump and made it more severe. However, these developments were not the primary cause of the recession. Consumer spending started to retreat more than two years ago under relentless pressure from the Fed. Nonetheless, business people kept on hiring. This was especially so in services, which account for three out of four jobs in the private sector.

However, the more people companies hired, the more both profits and profit margins went down. Pretax profits per employee in the private service sector peaked two years ago. Since that

March 3-4, 1991

time, profit per employee has declined at a compound annual rate of more than 6 percent. In effect, payrolls were padded with workers who were producing losses for their employers. Obviously, this process could not continue. It did not.

Private service employers, who had been adding over 2-million people a year to their payrolls, have hired only 210,000 workers since last June. In addition, manufacturing and construction firms have continued to lay people off. Therefore, total civilian employment dropped by more than 1.3 million over the past seven months. This decline, incidentally, started before Iraq invaded Kuwait on August 2.

As far back as September 1989, we reported to the SOMC that our Baseline Forecast indicated "a recession during the first half of 1990." While this projection was premature, its thrust was correct. Present patterns indicate that the recession will continue for several months. Our current Baseline Forecast, which assumes the Federal Reserve will encourage moderate monetary growth in the months immediately ahead, shows a moderate rebound by the third quarter of 1991 (see the attached table).

The core rate of inflation (ex food and fuel) apparently accelerated in 1990. However, we believe this pickup was in part illusory. Much of the "acceleration" can be traced to purported increases in the cost of services in general (55 percent of the CPI) and its shelter component in particular (more than half of total services). Shelter costs have gone up rapidly irrespective of falling home prices and rising vacancy rates. Simple laws of supply and demand seem to be out of style.

Notwithstanding the spike in producer and consumer prices caused by the oil shock last summer, chances for intermediate-term price stability have improved. The personal consumption deflator for goods (an excellent measure of the prices of things people actually buy) rose at an annual rate of only 2.2 percent over the last three months.

Federal Reserve policy—which we have characterized as a "preemptive strike against inflation"—created a setting where higher relative energy prices were disinflationary. Increased consumer outlays for gasoline and heating oil absorbed the limited income available for purchase of other goods and services. In retrospect, the 1990 "oil shock" had a smaller impact on reported rates of inflation than the cold snap in December 1989.

Meanwhile, asset prices—especially for real estate—have tumbled. Corporate profits have faded because business managers have been unable to pass higher costs to final purchasers. The long lag between Fed actions and their subsequent impact on price behavior suggests that inflation will slow in the months immediately ahead. The rate of price increase is likely to continue to drop through much of 1992.

As the underlying pattern of disinflation becomes clearer to market participants, interest rates should drop further. The yield on long-term Treasury bonds, currently hovering around 8 percent, should drop another half percentage point by mid-year. The Federal funds rate, the target for day-to-day Fed operations, is likely to decline from about 6.25 percent at present to a range of 5.25 percent to 5.75 percent. These developments should be associated with a sustained acceleration in monetary growth.

This forecast begs the critical questions about monetary policy: Can Mr. Greenspan now move to consolidate his gains in the battle against inflation? Or, alternatively, is this simply another dreary episode in go-stop-go monetary policy? Preliminary indications are not encouraging.

March 3-4, 1991

Members of Congress clearly assign price stability a low priority. North Carolina Democrat Stephen Neal, who chairs the House Subcommittee on Domestic Monetary Policy, has sponsored a resolution to make zero inflation the Fed's primary target. At the recent Cato Institute Monetary Conference, a member of the audience asked Rep. Neal how many votes he had for his proposal. "About 10," he answered.

The White House pays aggressive lip service to the principle of stable prices. However, the Bush Administration has refused to support Rep. Neal's zero inflation resolution. Indeed, the President's Council of Economic Advisers said last month that "monetary policy ... has helped keep the underlying rate of inflation relatively low and relatively steady ... The credibility that this experience has built, combined with the recent relatively low inflation rates, gives the Federal Reserve more elbow to allow inflation to rise temporarily." The Administration, like Saddam Hussein, apparently intends to declare victory over inflation and then surrender.

Make no mistake, when the Federal Reserve adheres to a policy of moderate, stable expansion in the money supply over a long period of time, the economy will prosper. William McChesney Martin, Jr. held the rate of growth in the money supply to less than 2 percent in the 1950s. This laid a solid foundation for rapid, non-inflationary growth in the early 1960s. By contrast, when the authorities deviate from a path of steady, moderate expansion—either by freezing the money supply or by bringing it to a boil—the economy will suffer. As the CEA noted, the Fed has made major gains against inflation over the past four years. This advantage must not be frittered away with erratic policy.

The Treasury deficit will approach \$300 billion this year. Even so, this flood of red ink is much less threatening than many analysts now assume. The Budget Enforcement Act of 1990, a

key result of the marathon debate over fiscal policy last fall, represented a serious attempt to put a lid on federal spending. Detailed analysis suggests that, large as it is, the impact of the deficit may be relatively benign.

The new rules to control federal spending are complicated. While complexity is not necessarily a virtue, the new procedures will be much more effective than the rubbery spending ceilings under the old Gramm-Rudman-Hollings Balanced Budget Act. Congress designed the complex requirements of the Budget Enforcement Act to close loopholes under the old law. Members will now have to make genuine choice between competing demands for funding. Among other conditions, the law set two broad groups of programs: discretionary appropriations, which Congress must vote on every year, and so-called direct or entitlement outlays, which are governed by more permanent laws.

The law created three classes of discretionary spending—defense, international and domestic. It then set separate spending caps for each type. Congress will trigger an automatic sequester (mandatory cutback in spending) anytime it passes a law that will breach the outlay ceiling for a particular category. In addition, there are "pay-as-you-go" sequesters to control both revenues and expenses of some of the major entitlement programs such as Medicaid, unemployment insurance, revenue sharing and federal retirement benefits. Over time, if the net effect of these programs were to increase the deficit, this would trigger a sequester. Outlays would be reduced by a uniform percentage sufficient to put the budget back on target.

As a third line of defense, Congress left in place the basic revenue and spending controls from the GRH Balanced Budget Act. If the overall deficit appears likely to exceed specified targets, then across-the-board cuts will follow. Half will come from defense and half from "non-exempt," non-defense sectors. The new rules are far from perfect. In general, Social Security and interest

March 3-4, 1991

on the debt remain outside the budget control process. No one will go to jail for ignoring the rules. Nevertheless, the attempt was serious. Moreover, three times during each annual budget cycle, Congresspersons will have to tote up the sums to see where they stand in relation to their budget targets.

Meanwhile, interest rates are down (and bond prices up) despite the certainty of massive Treasury borrowing. In part, this is simply a result of the recession and the likelihood that inflation will slow to a crawl in 1991. Bond buyers also have three other reasons to be optimistic:

ONE, except for the Treasury, demand for credit has fallen through the floor. Total nonfinancial, nonfederal debt came to \$7.9 trillion in December up only 5.5 percent from a year earlier. Except for a brief period at the bottom of the 1973-75 recession, that was the slowest rate of increase in private debt since the figures were first collected in 1955. This means that there is plenty of room in the credit markets for Uncle Sam to get what he needs.

TWO, much of the increase in federal outlays in the past year is to bail out millions of savings and loan depositors across the country. As Commerce Department economists concluded more than a year ago, these transactions are "asset transfers" rather than outlays for goods and services. As a result, borrowing to bail out S&L depositors will have little or no impact on the net need for credit. The Treasury's demand for credit is offset by the funds it supplies to depositors of failed S&Ls.

THREE, most of the remaining Treasury deficit is interest on the \$2.5 trillion federal debt. Interest also involves dollar-swapping. Much of the \$180 billion net interest that the Treasury pays to domestic holders of its debt (as well as a large portion of the \$40 billion paid to foreigners) is

simply reinvested in newly issued Treasuries. Washington is a conduit—taking funds in and paying them out, sometimes to the same investors. Such borrowing does not add to Washington's net nonfinancial demand for credit.

In fact, the basic federal budget—revenues less outlays for goods, services and transfers other than interest—was in balance last summer. This is typical of the early stage of a business downturn. That won't be true later on this year, but even so the basic federal deficit should be modest. Rates usually drop during recessions. The 1990-91 recession is no exception.

As noted, Federal Reserve actions have increased the likelihood that the recession will be severe. Policymakers have been reluctant to allow short-term interest rates to decline, even though demand for credit is weak. In this environment, the Federal Reserve had to freeze bank reserves to prevent rates from declining.

The pattern of go-stop monetary policy has placed the Federal Reserve in jeopardy. As real economic activity declines, the Fed has found itself under intense (and characteristic) pressure to reverse course and reflate the economy. There is a clear risk that go-stop-go monetary policy—the Fed's traditional trade mark—will be perpetuated. If so, this would impose needless costs on the economy. It would also raise the long-run expected rate of inflation.

At this point, the Fed's challenge is to devise a strategy to consolidate its gains in the battle against inflation. The danger, as an anonymous member of the Federal Open Market Committee warned recently, is that "a substantial weakening of the economy would be followed by rapid monetary growth and a marked rebound in activity—a pattern that would be unlikely to foster the objective of price stability over time.

March 3-4, 1991

Mr. Greenspan can take grim satisfaction from the fact that he has inflation largely under control. However, the broader, deeper question is whether he will be able to hold the territory he has conquered. As a result of the Fed's efforts, roughly 1.3 million people lost their jobs over the last seven months. Quite naturally, the pervasive weakness in the economy has started to generate a significant political backlash. The White House warned last week it was "essential" that money supply growth stay "well within" the Fed's goal for 1991 of 2.5 to 6.5 percent. In fact, recent M-2 growth has been below that range.

"Restrictive monetary policy," Mr. Bush's Council of Economic Advisers said, "would jeopardize a solid recovery ... and hamper prospects for long-term growth." At the same time, they warned that "a decline in interest rates during a downturn may not be a sign of monetary easing, especially if the growth of money and credit has slowed." In effect, the White House gave Mr. Greenspan his marching orders: If you want to stay in office, get the money supply on track. Mr. Greenspan's four-year term as Fed chairman, incidentally, runs out on August 6.

In 1989, we predicted that the real return on dollar assets would decline. "In that case," we said, "the dollar will weaken and continue to decline through much of 1990." That was a good forecast. The Federal Reserve's trade-weighted dollar index was above 102 in September 1989. It is now about 84. As expected, devaluation of the dollar produced temporary "benefits." Over time, such gains always prove to be illusory. The advantage of lower relative prices of exports is offset by higher domestic inflation. Nonetheless, there are short-term gains, and these are reflected in our Baseline Forecast.

The deficit in U.S. international payments has improved steadily since 1986. Real "net exports," as defined in the national income accounts, were at a negative \$18.5 billion annual rate

in the fourth quarter of 1990, a gain of more than \$28 billion from a year earlier. Even though the growth rate of U.S. merchandise exports has dropped considerably, further gains in U.S. trade are likely as domestic demand slumps.

Imports, which have already slowed substantially, should grow even less rapidly as consumer demand continues to decline. Hopefully, exports will pick up. Domestic capacity is free to service markets overseas. We believe that the U.S. "surplus" in international service transactions is significantly overstated. Apart from this caveat, however, the officially reported deficit on goods and services should continue to dwindle. We expect trade to play a role in limiting the downturn.

Late last year, the Federal Reserve took action to help the nation's banks by cutting the reserves that they are legally required to hold against their deposits. The move, which had been widely anticipated, had little or no effect on the money supply. The \$12 billion in reserves that were released through this move were absorbed in the course of normal day-to-day open market operations. Nonetheless, banks are now in a position to lend or invest funds that would otherwise have been kept in non-interest-bearing accounts at the Federal Reserve banks.

Wall Street analysts were quick to praise the decision—even though few of them really understood its implications. With the benefit of hindsight, it now appears that the cut may have been overly generous. Problems have developed. The Federal funds rate has become more volatile (it has ranged between zero and 100 percent since mid-December) and banks have suddenly started to carry large amounts of "excess" reserves. These difficulties could have been avoided if Mr. Greenspan and his colleagues on the Federal Reserve Board had been willing to listen to advice from the Federal Reserve Bank of New York.

To understand what is going on requires a close look at the mechanics of money and banking. Analysts may end up learning more about the sex life of a bank reserve than they really want to

March 3-4, 1991

know. Nonetheless, we think the effort is worthwhile. First of all, you need to understand that the law requires almost all depository institutions to set aside a specified portion of their deposits as a "required reserve." The amount of that reserve depends on the size of the bank. In addition, reserve requirements are adjusted for inflation each year.

Reserve requirements can be satisfied either with the "vault cash" that banks hold as part of their regular business (these days mostly in automatic cash machines) or with funds held on deposit at the Federal Reserve banks. At present, the vast majority of depository institutions that are subject to reserve requirements (as a rough estimate, 13,000 out of 15,000) satisfy these needs with vault cash.

The remaining institutions—which for the most part are quite large—have to maintain accounts at the Federal Reserve banks. During January, these required reserve balances averaged about \$22 billion a day. These balances are used actively. The Federal Reserve operates a nationwide, computer-based money transfer system called Fedwire. This system handles more than 200,000 transactions each business day worth upwards of \$700 billion. All these transactions pass through accounts at the Federal Reserve, which turn over more than 30 times a day at the average bank.

The Federal Reserve imposes substantial penalties on banks that overdraw their accounts overnight, and also tries to limit the amount of "daylight," or intra-day overdrafts that banks have. According to Bruce J. Summers, a senior staff official at the Federal Reserve Board, such daylight credit is a "valuable commodity" which the Fed currently gives away for free. "If something has value but is not priced," Mr. Summers said in an article in the *Federal Reserve Bulletin*, "then it tends to be overused and wasted." As a result, the Fed has proposed to start charging for such credit once it figures out how to measure it.

Whatever the rationale, large banks are under pressure from the Fed to hold down the amount of the intra-day overdrafts in their reserve accounts. One effect of the cut in reserve requirements was to bring the amount of REQUIRED reserve balances roughly in line with the NEEDED amount of clearing balances. By lowering reserve requirements, the Fed in effect cut the implicit tax that reserve requirements represent to zero.

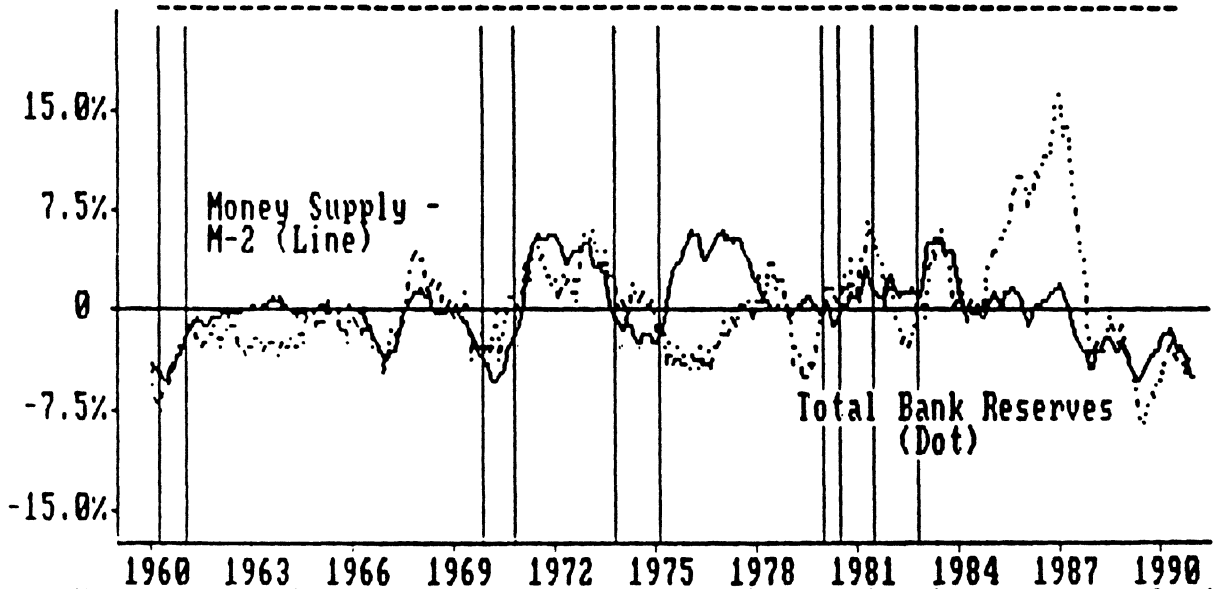
Indeed, in late January and early February, needed clearing balances were almost \$2 billion higher than required reserve balances. Vault cash, which was at a seasonal high, accounted for more than 65 percent of required reserves, which were at a seasonal low point. As a result, banks held on to their reserve balances—not because they were unwilling or unable to invest these funds—but because they needed the money to conduct their daily business.

Federal Reserve officials seem to have been slow to catch on. Consequently, they allowed the seven-day moving average of the Fed funds rate to go as high as 8 percent late last month—far above its presumed target of 6.5 percent. On an intra-day basis, the funds rate spiked as high as 90 percent. All this had nothing to do with any overt tightening of monetary policy. In fact, of course, the Fed subsequently cut its discount rate to 6 percent and lowered the funds target to 6.25 percent.

The moral of this complicated tale is that you have to look ever more carefully to read the Fed's tea leaves. Bottom line, money is still tight. As the CEA said, lower interest rates do not necessary mean easier money. *To repeat, paying off debt and rebuilding depleted portfolios of liquid assets is an essential component of economic recovery. This process is still only a forecast, not a fact.* Against this background, the Fed funds rate still has a way to drop before it hits its low for the 1990-91 recession.

BANK RESERVES AND MONEY SUPPLY SHOW FED POLICY IS STILL TIGHT

DEVIATION FROM NORMAL

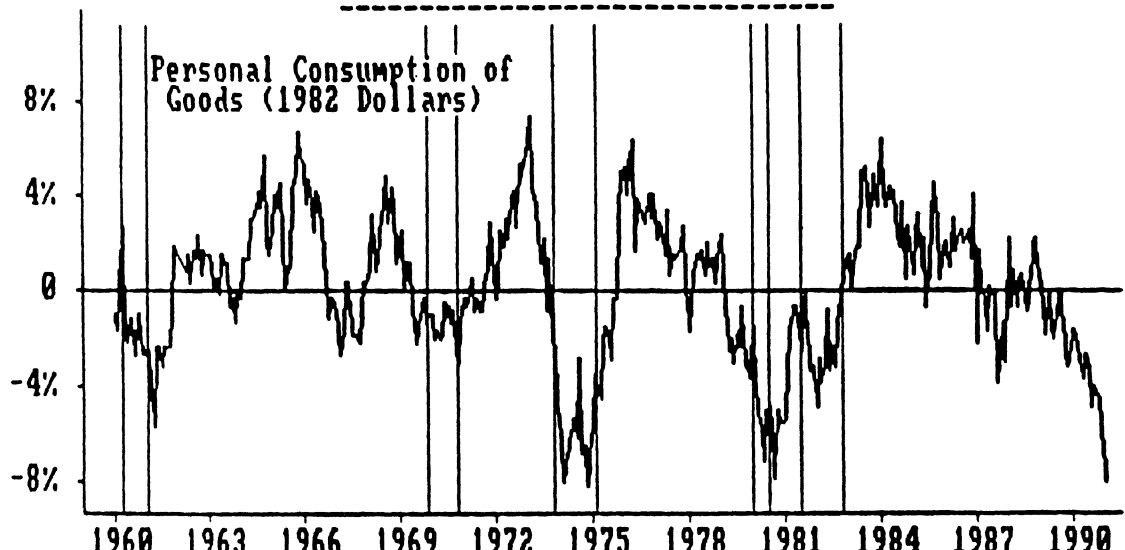


Notes: The chart shows year-over-year changes in the money supply (M-2, line) and in total bank reserves (constant reserve ratios, dot) less the mean rate of change, 1960-1991. The vertical lines show periods of recession.

Sources: Citibase; Heinemann Economic Research

CONSUMER SPENDING HAS COLLAPSED

DEVIATION FROM NORM

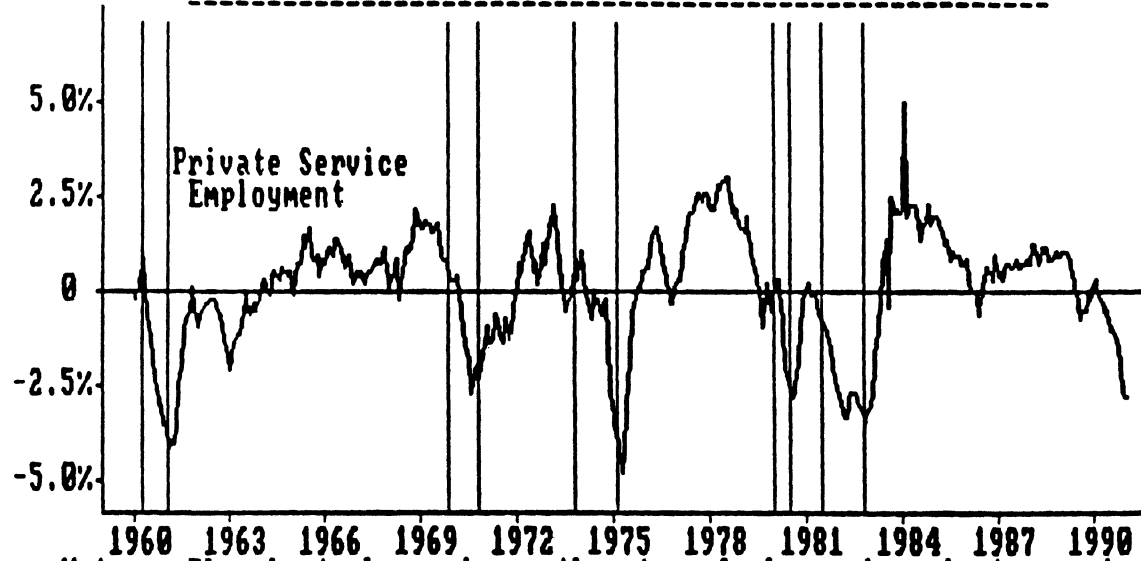


Notes: The chart shows year-over-year changes in real personal consumption of goods (durables and nondurables) minus the mean rate of change, 1960-1991. Underlying data in trillions of 1982 dollars, SAAR. The vertical lines show recessions.

Sources: Citibase; Heinemann Economic Research

THE DROP IN SERVICE EMPLOYMENT TRIGGERED THE RECESSION

DEVIATION FROM NORM

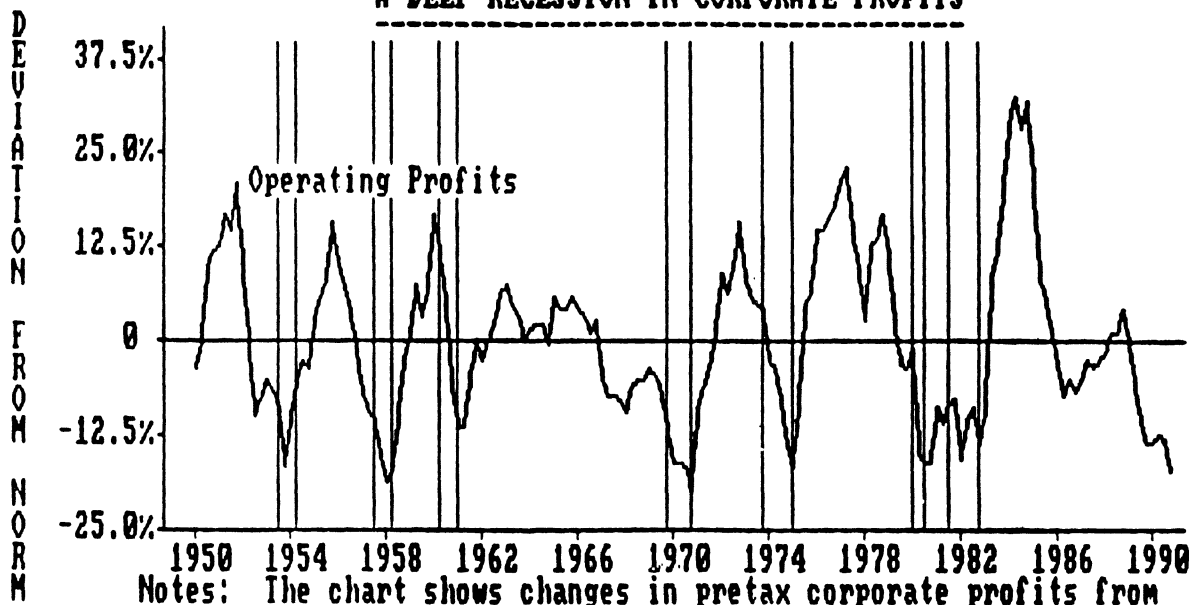


Notes: The chart shows six-month rates of change in private service employment less the mean rate of change, 1960-1991. Seasonally adjusted annual rates. Underlying data in thousands of jobs. The vertical lines show periods of recession.

Sources: Citibase; Heinemann Economic Research

March 3-4, 1991

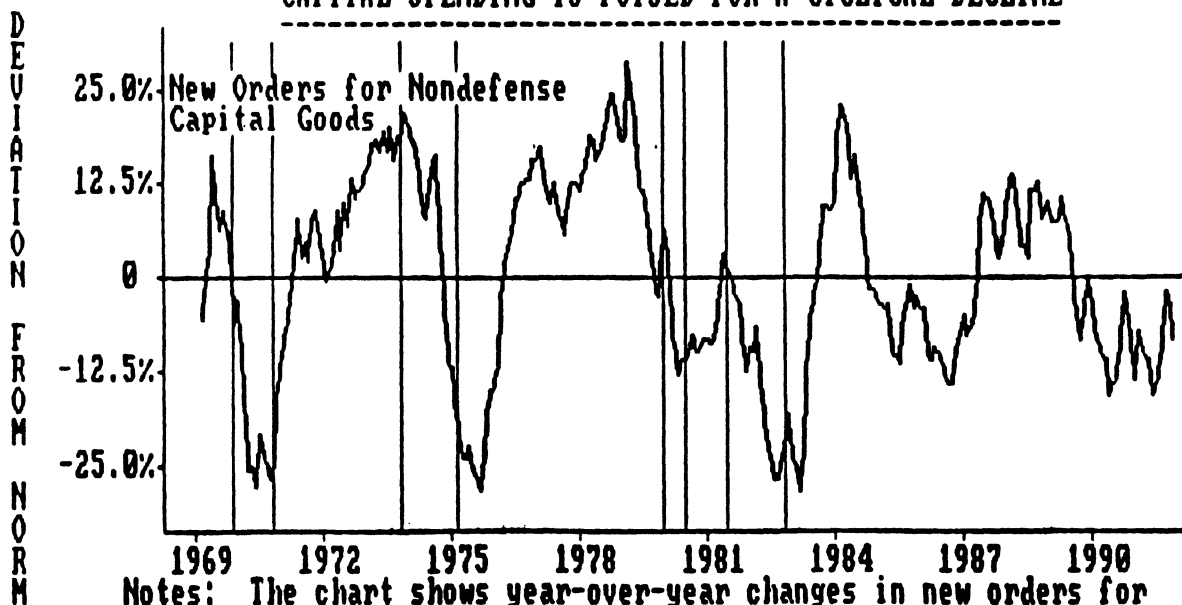
A DEEP RECESSION IN CORPORATE PROFITS



Notes: The chart shows changes in pretax corporate profits from current operations, IVA/CCA adjusted. Eight-quarter moving average of quarter-to-quarter changes less the mean rate of change, 1950-1990. The vertical lines show recessions.

Sources: Citibase; Heinemann Economic Research

CAPITAL SPENDING IS POISED FOR A CYCLICAL DECLINE



Notes: The chart shows year-over-year changes in new orders for nondefense capital equipment minus the mean rate of change, 1969-1991. Data are seasonally adjusted, smoothed with a three-month moving average. Vertical lines show recessions.

Sources: Citibase; Heinemann Economic Research

Shadow Open Market Committee

HEINEMANN ECONOMIC RESEARCH

Baseline Forecast - March 1991

	IV'89 A	I'90 A	II'90 A	III'90 A	IV'90 A	I'91 F	II'91 F	III'91 F	IV'91 F	1989 A	1990 A	1991 F
THE ECONOMY:												
Gross National Product (\$82)	\$4,133.3	\$4,150.5	\$4,165.1	\$4,170.0	\$4,149.5	\$4,107.5	\$4,082.1	\$4,106.9	\$4,148.3	\$4,117.7	\$4,156.3	\$4,110.7
Pct Chg	0.3%	1.7%	0.4%	1.4%	-2.0%	-4.0%	-2.4%	2.5%	3.9%	2.5%	0.9%	-1.1%
Personal Consumption (\$82)	\$2,669.9	\$2,677.3	\$2,678.8	\$2,698.8	\$2,678.9	\$2,656.3	\$2,642.2	\$2,651.3	\$2,666.3	\$2,656.8	\$2,682.5	\$2,664.0
Pct Chg	-0.8%	1.1%	0.2%	2.7%	-2.9%	-3.0%	-2.1%	1.4%	2.3%	1.9%	1.0%	-1.1%
Business Investment (\$82)	\$508.4	\$514.6	\$508.4	\$519.3	\$517.6	\$506.1	\$480.7	\$486.0	\$494.5	\$506.1	\$515.0	\$491.8
Pct Chg	-3.6%	5.0%	-4.7%	8.9%	-1.3%	-8.6%	-18.6%	4.4%	7.2%	3.9%	1.8%	-4.6%
Structures (\$82)	\$123.1	\$123.8	\$120.9	\$122.4	\$116.5	\$110.2	\$101.9	\$102.8	\$104.0	\$122.4	\$120.9	\$104.7
Prod. Dur. Equip. (\$82)	\$385.4	\$390.8	\$387.5	\$397.0	\$401.1	\$395.9	\$378.8	\$383.1	\$390.5	\$383.7	\$394.1	\$387.1
Residential Invest. (\$82)	\$181.8	\$188.3	\$182.8	\$173.0	\$164.4	\$157.5	\$154.0	\$158.3	\$167.6	\$187.0	\$177.1	\$159.4
Pct Chg	-5.5%	15.1%	-11.2%	-19.8%	-18.5%	-15.8%	-8.5%	11.6%	25.7%	-4.0%	-5.3%	-10.0%
Change in Inventory (\$82)*	\$13.9	(\$9.2)	\$10.6	\$8.0	(\$23.8)	(\$31.7)	(\$16.8)	(\$7.5)	\$1.6	\$19.1	(\$4.1)	(\$13.6)
Net Exports (\$82)	(\$47.9)	(\$35.4)	(\$44.6)	(\$46.5)	(\$18.5)	(\$24.4)	(\$24.9)	(\$30.8)	(\$36.9)	(\$54.1)	(\$36.3)	(\$29.3)
Government Purchases (\$82)*	\$807.2	\$814.9	\$819.1	\$821.4	\$832.9	\$843.6	\$846.8	\$849.8	\$853.2	\$802.9	\$822.1	\$848.3
Pct Chg	0.5%	3.9%	2.1%	1.1%	6.7%	5.3%	1.5%	1.3%	1.7%	0.8%	2.4%	3.2%
Final Domestic Sales (\$82)	\$4,167.3	\$4,195.1	\$4,189.1	\$4,210.5	\$4,191.8	\$4,163.6	\$4,123.8	\$4,145.2	\$4,181.6	\$4,152.8	\$4,198.6	\$4,153.5
Pct Chg	-1.1%	2.7%	-0.6%	2.1%	-1.8%	-2.7%	-3.8%	2.1%	3.6%	1.7%	1.1%	-1.0%
Gross Nat'l Prod. (\$ Current)	\$5,289.3	\$5,375.4	\$5,443.3	\$5,514.8	\$5,521.3	\$5,510.3	\$5,521.8	\$5,590.4	\$5,678.0	\$5,200.8	\$5,463.7	\$5,575.1
Pct Chg	3.9%	6.7%	5.1%	6.3%	0.6%	-0.8%	0.8%	5.1%	6.4%	6.7%	5.1%	2.0%
Disposable Income (\$82)	\$2,863.2	\$2,900.9	\$2,902.8	\$2,896.0	\$2,870.7	\$2,844.9	\$2,839.5	\$2,873.6	\$2,913.9	\$2,869.0	\$2,893.1	\$2,868.0
Pct Chg	1.2%	2.5%	0.3%	-0.7%	-3.7%	-3.6%	-0.8%	4.9%	5.7%	2.4%	0.8%	-0.9%
Savings Rate (Percent)	4.6%	4.9%	5.0%	4.2%	4.0%	3.8%	3.9%	4.1%	4.4%	4.6%	4.5%	4.1%
Operating Profits (\$ Current)	\$290.9	\$296.8	\$306.6	\$300.7	\$284.3	\$271.3	\$257.7	\$262.0	\$293.9	\$311.8	\$297.1	\$276.2
Pct Chg	-19.1%	8.4%	13.9%	-7.5%	-20.1%	-17.1%	-18.5%	43.3%	17.9%	-7.7%	-4.6%	-7.0%
Industrial Prod. (1987=100)	108.1	108.3	109.4	110.5	108.3	105.7	105.2	107.3	109.8	108.1	109.1	107.0
Pct Chg	0.2%	0.7%	4.1%	4.0%	-7.6%	-9.3%	-1.9%	8.2%	9.7%	2.6%	1.0%	-1.9%
Housing Starts (Mill. Units)	1,347.7	1,433.3	1,204.0	1,130.7	1,043.7	991.8	1,048.6	1,132.7	1,163.5	1,389.2	1,202.9	1084.1
Pct Chg	3.1%	28.0%	-50.2%	-22.2%	-27.4%	-18.4%	24.9%	36.2%	11.3%	-7.1%	-13.4%	-9.9%
Auto Sales (Million Units)	8.818	9.797	9.543	9.720	8.972	8.6	8.4	8.6	8.9	9.813	9.508	8.6
Pct Chg	-53.1%	52.4%	-10.0%	7.6%	-27.4%	-15.5%	-7.8%	9.8%	12.1%	-6.3%	-4.1%	-9.2%
Total Employment (Millions)	117.8	118.1	118.2	117.8	117.6	117.0	116.7	117.1	117.7	117.3	117.9	117.1
Pct Chg	1.0%	1.1%	0.4%	-1.3%	-0.9%	-2.0%	-0.8%	1.4%	1.9%	2.0%	0.5%	-0.7%
Unemployment Rate (Percent)	5.3%	5.3%	5.3%	5.6%	5.9%	6.5%	6.9%	7.1%	6.8%	5.3%	5.5%	6.8%
Comp. Per Hour Non-Farm Bus**	132.9	134.2	135.8	137.4	138.7	139.9	141.0	142.2	143.4	131.9	136.5	141.6
Pct Chg	2.4%	4.0%	4.9%	4.8%	3.8%	3.4%	3.2%	3.5%	3.4%	3.2%	3.5%	3.7%
Productivity Non-Farm Bus**	111.0	110.7	110.7	110.9	110.9	110.4	110.0	111.2	112.3	111.7	110.8	111.0
Pct Chg	-2.5%	-1.1%	0.0%	0.7%	0.0%	-1.7%	-1.6%	4.6%	3.9%	-0.7%	-0.8%	0.2%
Unit Labor Cost Non-Farm Bus**	119.7	121.3	122.7	123.9	125.0	126.7	128.2	127.8	127.7	118.1	123.2	127.6
Pct Chg	4.8%	5.5%	4.7%	4.0%	3.6%	5.4%	4.8%	-1.0%	-0.5%	3.9%	4.3%	3.5%
GNP Deflator (1982=100)	126.0	129.5	131.0	132.2	133.1	134.2	135.3	136.1	136.9	126.3	131.5	135.6
Pct Chg	3.6%	4.9%	4.7%	3.8%	2.5%	3.3%	3.4%	2.5%	2.4%	4.1%	4.1%	3.2%
CPI Less Energy (1982=100)	130.3	132.6	134.0	135.9	137.2	138.1	138.8	139.7	140.8	128.3	134.9	139.3
Pct Chg	4.6%	7.1%	4.4%	5.7%	4.1%	2.6%	2.1%	2.6%	2.5%	4.8%	5.2%	3.3%
Fed'l Deficit (\$ Current NIA)	(\$150.1)	(\$168.3)	(\$168.0)	(\$146.7)	(\$165.2)	(\$178.4)	(\$196.1)	(\$203.0)	(\$194.9)	(\$134.3)	(\$161.3)	(\$183.1)
FINANCIAL MARKETS:												
Federal Funds Rate	8.61%	8.25%	8.24%	8.16%	7.74%	6.2%	5.7%	6.1%	6.5%	9.22%	8.1%	6.1%
Three-month Bills (Discount)	7.65%	7.76%	7.75%	7.48%	6.99%	5.8%	5.1%	5.3%	5.7%	8.11%	7.5%	5.5%
Prime Rate, Major Banks	10.50%	10.04%	10.00%	10.00%	10.00%	8.3%	7.8%	8.2%	8.6%	10.87%	10.0%	8.2%
30-Year Treasury Bonds	7.93%	8.44%	8.65%	8.80%	8.55%	8.1%	7.5%	7.9%	7.9%	8.45%	8.6%	7.8%
Money Supply (M-1, \$ Current)	\$790.8	\$800.2	\$807.4	\$815.8	\$822.6	\$837.5	\$854.2	\$869.3	\$883.1	\$783.7	\$811.4	\$861.0
Pct Chg	5.2%	4.6%	3.6%	4.2%	3.5%	7.4%	8.2%	7.3%	6.5%	1.0%	3.5%	6.1%
Velocity (Ratio: GNP TO M-1)	6.689	6.718	6.742	6.761	6.712	6.680	6.465	6.431	6.430	6.638	6.733	6.476
Pct Chg	-1.2%	1.7%	1.4%	1.1%	-2.9%	-7.7%	-8.8%	-2.1%	-0.1%	5.6%	1.5%	-3.8%
Trade-Weighted \$ (1973=100)	97.3	93.1	92.7	87.4	84.3	83.4	81.4	84.7	85.5	96.7	89.4	83.8
Memo: CCC Purchases	(\$5.0)	(\$7.0)	\$1.1	\$1.3	(\$1.6)	(\$7.9)	\$5.9	\$3.3	(\$2.9)	(\$4.7)	(\$1.6)	(\$0.4)

A=Actual F=Forecast Billions of dollars unless noted.

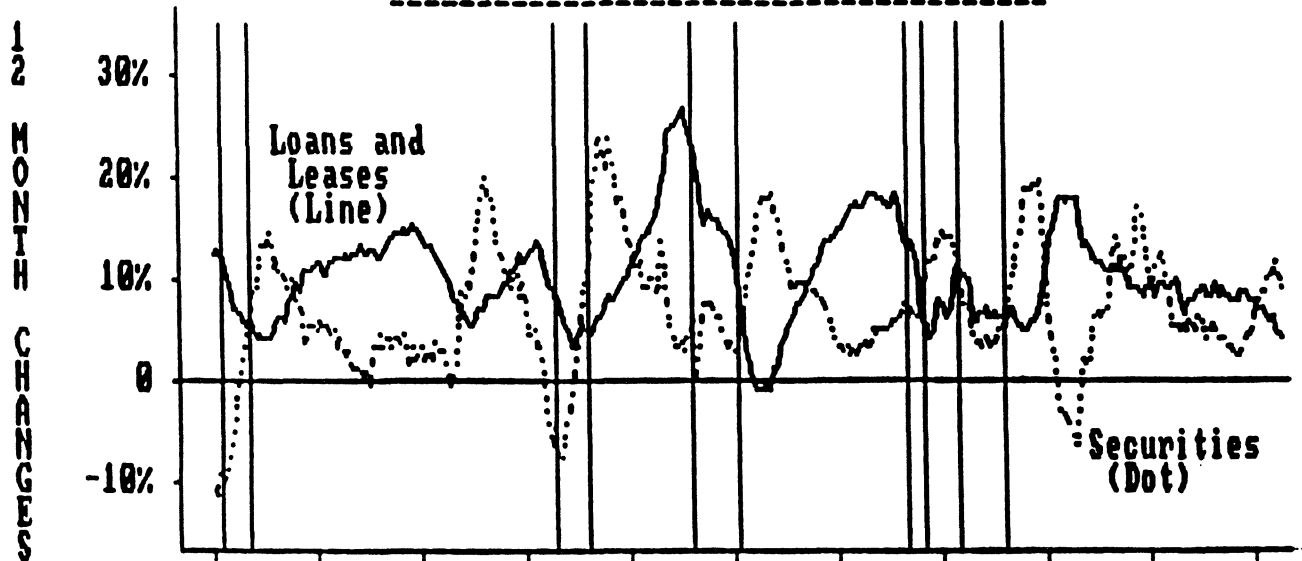
*Adjusted for Commodity Credit Corp. purchases. **Compensation, productivity and unit labor costs are index numbers, 1982=100.

Source: Citibase; Heinemann Economic Research

March 3-4, 1991

	<u>I'89 A</u>		<u>II'89 A</u>		<u>III'89 A</u>		<u>IV'89 A</u>		<u>1989 A</u>	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross National Product (\$82)	\$38.8	3.64%	\$18.3	1.80%	\$17.6	1.76%	\$3.8	0.36%	\$100.9	2.51%
Personal Consumption (\$82)	(\$2.1)	-0.21%	\$8.6	0.84%	\$30.0	2.95%	(\$5.4)	-0.52%	\$50.3	1.25%
Business Investment (\$82)	\$10.5	1.04%	\$8.4	0.82%	\$7.8	0.76%	(\$4.9)	-0.47%	\$18.9	0.47%
Structures (\$82)	\$2.2	0.22%	(\$2.6)	-0.26%	\$2.1	0.21%	\$0.4	0.04%	(\$0.0)	-0.00%
Prod. Dur. Equip. (\$82)	\$8.4	0.83%	\$10.9	1.08%	\$5.7	0.56%	(\$5.2)	-0.51%	\$18.9	1.88%
Residential Invest. (\$82)	(\$1.8)	-0.18%	(\$5.7)	-0.56%	(\$3.7)	-0.36%	(\$2.6)	-0.25%	(\$7.8)	-0.19%
Change in Inventory (\$82)*	\$10.9	1.08%	\$3.0	0.29%	(\$10.6)	-1.03%	(\$0.8)	-0.08%	\$11.1	0.28%
Net Exports (\$82)	\$24.6	2.45%	(\$2.2)	-0.21%	(\$10.8)	-1.05%	\$16.2	1.58%	\$21.8	0.54%
Government Purchases (\$82)*	(\$5.5)	-0.54%	\$4.2	0.41%	\$4.9	0.48%	\$1.1	0.11%	\$8.7	0.17%
Final Domestic Sales (\$82)	\$1.1	0.11%	\$15.5	1.52%	\$39.0	3.85%	(\$11.8)	-1.14%	\$68.0	1.69%
GNP (\$82) Four qtr chg (%)		3.16%		2.66%		2.42%		1.83%		
	<u>I'90 A</u>		<u>II'90 A</u>		<u>III'90 A</u>		<u>IV'90 A</u>		<u>1990 A</u>	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross National Product (\$82)	\$17.2	1.69%	\$4.8	0.46%	\$14.9	1.45%	(\$20.5)	-1.90%	\$38.6	0.93%
Personal Consumption (\$82)	\$7.4	0.72%	\$1.5	0.14%	\$18.0	1.74%	(\$19.9)	-1.80%	\$25.7	0.62%
Business Investment (\$82)	\$8.2	0.80%	(\$6.2)	-0.80%	\$10.9	1.05%	(\$1.7)	-0.16%	\$8.9	0.21%
Structures (\$82)	\$0.7	0.07%	(\$2.9)	-0.28%	\$1.5	0.14%	(\$5.9)	-0.57%	(\$1.5)	-0.14%
Prod. Dur. Equip. (\$82)	\$5.4	0.52%	(\$3.3)	-0.32%	\$9.5	0.91%	\$4.1	0.40%	\$10.4	0.25%
Residential Invest. (\$82)	\$6.5	0.83%	(\$5.5)	-0.53%	(\$9.8)	-0.94%	(\$8.8)	-0.83%	(\$9.9)	-0.24%
Change in Inventory (\$82)*	(\$23.1)	-2.21%	\$19.8	1.92%	(\$4.6)	-0.44%	(\$29.8)	-2.84%	(\$23.2)	-0.56%
Net Exports (\$82)	\$12.5	1.21%	(\$9.2)	-0.86%	(\$1.9)	-0.16%	\$28.0	2.73%	\$17.9	0.43%
Government Purchases (\$82)*	\$7.7	0.74%	\$4.2	0.40%	\$2.3	0.22%	\$11.5	1.11%	\$19.2	0.48%
Final Domestic Sales (\$82)	\$27.8	2.71%	(\$6.0)	-0.56%	\$21.4	2.07%	(\$18.7)	-1.79%	\$43.9	1.06%
GNP (\$82) Four qtr chg (%)		1.34%		1.05%		0.98%		0.39%		
	<u>I'91 F</u>		<u>II'91 F</u>		<u>III'91 F</u>		<u>IV'91 F</u>		<u>1991 F</u>	
THE ECONOMY:	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg	\$ Change	Pct Chg
Gross National Product (\$82)	(\$42.0)	-4.0%	(\$25.4)	-2.4%	\$24.8	2.4%	\$39.4	3.8%	(\$45.6)	-1.1%
Personal Consumption (\$82)	(\$20.6)	-2.0%	(\$14.1)	-1.4%	\$9.1	0.9%	\$15.0	1.4%	(\$28.4)	-0.7%
Business Investment (\$82)	(\$11.5)	-1.1%	(\$25.4)	-2.4%	\$5.2	0.5%	\$8.5	0.8%	(\$23.1)	-0.6%
Structures (\$82)	(\$6.3)	-0.6%	(\$8.3)	-0.8%	\$0.9	0.1%	\$1.2	0.1%	(\$16.2)	-0.4%
Prod. Dur. Equip. (\$82)	(\$5.2)	-0.5%	(\$17.1)	-1.6%	\$4.3	0.4%	\$7.4	0.7%	(\$7.0)	-0.2%
Residential Invest. (\$82)	(\$6.9)	-0.7%	(\$3.4)	-0.3%	\$4.3	0.4%	\$9.3	0.9%	(\$17.8)	-0.4%
Change in Inventory (\$82)*	(\$7.9)	-0.8%	\$14.9	1.4%	\$9.3	0.9%	\$9.1	0.9%	(\$9.5)	-0.2%
Net Exports (\$82)	(\$5.9)	-0.6%	(\$0.5)	-0.0%	(\$5.9)	-0.6%	(\$6.2)	-0.6%	\$7.0	0.2%
Government Purchases (\$82)*	\$10.7	1.0%	\$3.2	0.3%	\$2.7	0.3%	\$3.7	0.4%	\$26.2	0.6%
Final Domestic Sales (\$82)	(\$28.2)	-2.7%	(\$20.0)	-3.8%	\$21.4	2.1%	\$36.5	3.6%	(\$43.1)	-1.0%
GNP (\$82) Four qtr chg (%)		-1.0%		-1.8%		-1.5%		-0.1%		

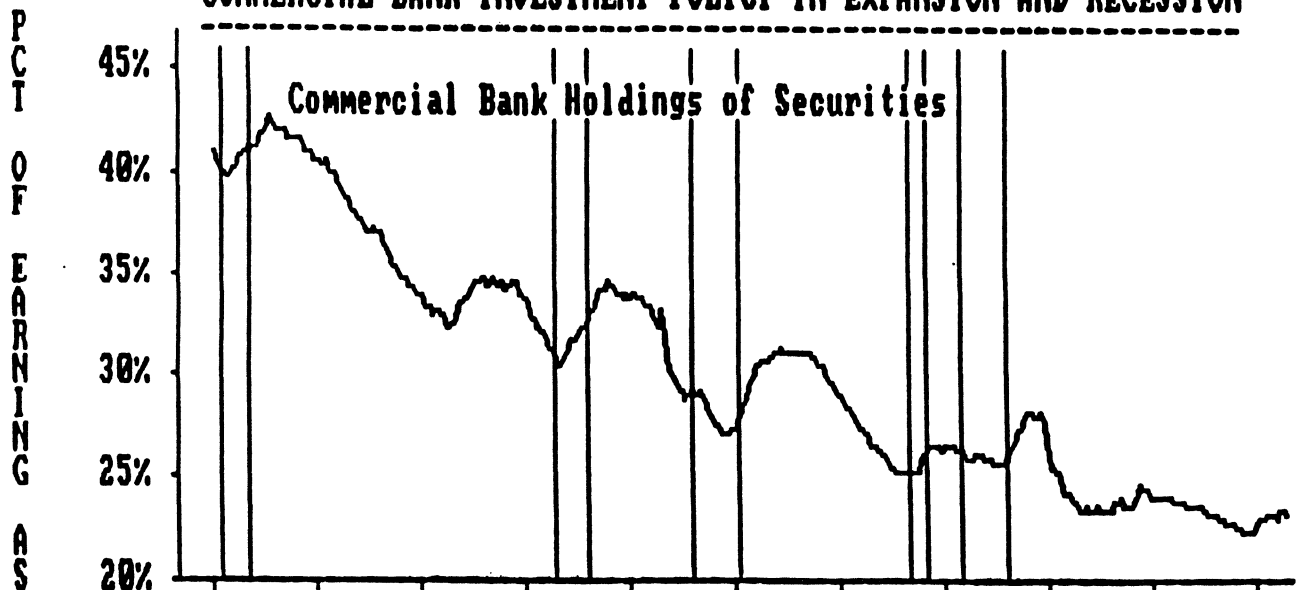
CHANGING PATTERNS IN TOTAL BANK CREDIT



Notes: The chart shows year-over-year changes in total commercial loans and leases (line) and in commercial bank holdings of securities (dot). The vertical lines show periods of recession in general business activity.

Sources: Citibase; Heinemann Economic Research

COMMERCIAL BANK INVESTMENT POLICY IN EXPANSION AND RECESSION



Notes: The chart shows commercial bank holdings of securities - Treasuries and tax-exempts - as a percent of total earning assets. The vertical lines show periods of recession.

Sources: Citibase; Heinemann Economic Research

March 3-4, 1991

TABLE 1
ASSETS AND LIABILITIES IN DOMESTIC OFFICES OF U.S. COMMERCIAL BANKS
(Billions of Dollars)

Date	ASSETS							LIABILITIES						
	U.S. Treasury Securities	State and Local Securities	Commercial and Industrial Loans	Real Estate Loans	Consumer Loans	Other Loans	Total Loans and Leases	Total Loans and Securities	Transaction Accounts	Consumer Time Accounts	Business Time Accounts	Nondeposit Liabilities	Total Deposit and Nondeposit Liabilities	Loan/ Liability Ratio
Jul 1988	349.7	198.2	595.1	634.2	345.9	237.0	1812.2	2360.1	570.0	966.3	345.2	226.8	2108.3	85.98
Aug	350.9	198.9	596.8	641.7	347.7	241.1	1827.3	2375.1	569.8	969.2	351.7	233.3	2124.0	86.03
Sep	353.7	194.9	597.5	646.5	350.3	233.5	1829.8	2378.3	568.8	972.4	357.0	228.3	2126.5	86.05
Oct	355.6	194.6	600.9	658.8	351.1	231.1	1841.9	2392.1	568.0	978.9	361.7	228.9	2136.5	86.25
Nov	357.8	194.6	603.8	665.0	352.3	234.3	1855.4	2407.8	567.8	986.7	363.6	230.1	2148.2	86.37
Dec	361.5	192.2	607.0	671.9	354.9	234.6	1868.4	2422.1	568.3	989.7	368.2	229.7	2155.9	86.66
Jan 1989	361.9	190.7	606.0	676.5	356.6	226.9	1866.0	2418.6	565.1	991.3	373.2	228.0	2157.6	86.48
Feb	362.7	190.1	617.3	684.0	357.9	233.3	1882.5	2445.4	565.1	996.5	379.4	228.2	2169.2	87.24
Mar	368.7	189.6	619.2	690.3	359.5	234.8	1903.8	2462.2	563.0	1002.5	386.0	234.0	2186.5	87.11
Apr	370.3	188.4	621.6	698.9	361.7	227.6	1909.8	2468.6	559.2	1009.1	392.2	222.5	2183.0	87.49
May	372.7	188.0	626.7	705.7	364.0	225.3	1921.7	2482.4	552.4	1012.1	395.7	218.7	2178.9	88.20
Jun	373.7	187.5	627.0	712.6	364.5	229.9	1934.0	2495.2	549.3	1015.1	397.1	216.7	2178.2	88.79
Jul	374.3	186.6	631.6	721.0	366.0	234.2	1952.8	2513.7	554.1	1022.7	398.7	217.9	2193.4	89.03
Aug	376.2	184.2	636.1	730.0	367.9	237.4	1971.4	2531.7	554.5	1032.2	397.8	213.6	2196.1	89.69
Sep	379.3	183.6	636.2	739.1	370.8	235.2	1983.3	2546.2	556.5	1039.0	397.2	208.5	2201.2	90.10
Oct	390.9	181.4	642.0	746.7	372.4	237.1	1998.2	2570.5	560.8	1049.3	398.8	204.3	2213.2	90.29
Nov	396.0	179.9	645.0	754.0	374.4	236.5	2009.9	2585.8	561.6	1060.2	401.5	204.7	2228.0	90.21
Dec	396.1	180.8	641.6	761.1	375.8	233.4	2011.9	2588.8	565.4	1066.6	401.5	204.4	2239.9	89.82
Jan 1990	404.7	180.4	637.9	765.9	378.3	227.2	2009.3	2594.4	562.7	1073.6	401.6	203.0	2240.9	89.66
Feb	414.5	180.5	638.8	774.7	379.5	226.4	2019.4	2614.3	567.2	1082.5	399.9	202.4	2252.0	89.67
Mar	422.3	180.1	644.4	781.8	379.9	227.1	2033.2	2635.6	568.8	1089.7	396.9	198.6	2254.0	90.20
Apr	427.3	180.0	649.0	786.9	378.8	224.7	2039.4	2646.7	569.6	1097.5	395.2	194.4	2256.7	90.37
May	430.6	178.3	648.6	794.6	379.8	222.0	2045.0	2653.8	566.0	1109.5	397.1	200.5	2273.1	89.97
Jun	436.5	177.9	651.6	800.1	378.4	222.9	2053.0	2669.4	568.3	1122.5	397.9	200.1	2288.8	89.70
Jul	440.6	177.8	651.7	808.0	378.3	228.4	2066.4	2684.7	565.9	1134.6	399.7	202.7	2302.9	89.73
Aug	441.3	179.2	653.1	811.9	380.1	242.2	2087.3	2707.8	569.5	1141.6	396.3	206.4	2313.8	90.21
Sep	447.1	179.4	651.6	814.7	381.1	234.6	2082.0	2708.5	572.4	1147.7	391.7	202.2	2314.0	89.97
Oct	451.6	176.9	649.5	820.7	381.2	231.1	2082.5	2710.9	567.7	1159.2	389.2	203.1	2319.2	89.79
Nov	452.0	175.2	652.4	824.1	380.3	230.2	2087.0	2714.2	569.5	1161.0	388.9	199.6	2319.0	90.00
Dec	447.7	175.4	654.5	829.2	381.9	231.1	2096.7	2719.8	571.1	1170.6	386.7	191.7	2320.1	90.37

TABLE 2

<u>Date</u>	<u>Securities Percent of Earning Assets</u>	<u>C&I Loans Percent of Earning Assets</u>	<u>RE Loans Percent of Earning Assets</u>	<u>Consumer Loans Percent of Earning Assets</u>
Jul 1988	23.22	25.22	26.87	14.66
Aug	23.06	25.13	27.02	14.64
Sep	23.07	25.12	27.27	14.73
Oct	23.00	25.12	27.54	14.68
Nov	22.94	25.08	27.62	14.63
Dec	22.86	25.06	27.74	14.65
Jan 1989	22.65	25.06	27.97	14.74
Feb	22.61	25.24	27.97	14.64
Mar	22.67	25.15	28.04	14.60
Apr	22.63	25.18	28.31	14.65
May	22.59	25.25	28.43	14.66
Jun	22.49	25.13	28.56	14.61
Jul	22.31	25.13	28.68	14.56
Aug	22.14	25.13	28.83	14.53
Sep	22.11	25.06	29.03	14.56
Oct	22.26	24.98	29.05	14.48
Nov	22.27	24.94	29.16	14.48
Dec	22.28	24.78	29.40	14.52
Jan 1990	22.55	24.59	29.52	14.58
Feb	22.76	24.43	29.63	14.52
Mar	22.86	24.45	29.66	14.41
Apr	22.95	24.52	29.73	14.31
May	22.94	24.44	29.94	14.31
Jun	23.09	24.41	29.97	14.18
Jul	23.03	24.27	30.10	14.09
Aug	22.92	24.12	29.98	14.04
Sep	23.13	24.06	30.06	14.07
Oct	23.16	23.96	30.27	14.06
Nov	23.11	24.04	30.36	14.01
Dec	22.91	24.06	30.49	14.04

Sources: Citibase; Heinemann Economic Research

March 3-4, 1991

28-Feb-91

Table 1 - Part 1

(Federal Reserve Board Monetary Base)

Federal Reserve Action and Monetary Growth

(\$ Billions)

Date	(1) Monetary Base	(2) Currency	(3) Total Adjusted Bank Reserves	(4) Demand Deposits	(5) Savings & Small Time Deposits*	(6) Large Time Deposits	(7) Non- deposit Liabil.	(8) Foreign Deposits	(9) Treasury Deposits	(10) Total Deposits**
Jun 1988	268.4	204.8	63.6	566.8	1928.4	506.7	301.3	11.6	21.0	3335.8
Jul	270.1	206.1	64.0	570.0	1934.3	514.2	302.3	12.0	22.0	3354.8
Aug	271.2	207.3	63.9	569.8	1937.2	521.1	308.6	11.1	11.9	3359.7
Sep	272.4	208.7	63.7	568.8	1941.0	529.8	305.3	11.1	24.5	3380.5
Oct	273.4	209.7	63.7	568.0	1948.3	535.9	306.1	10.6	27.7	3396.6
Nov	274.5	210.7	63.8	567.8	1956.6	537.1	310.4	11.0	16.2	3399.1
Dec	275.2	211.8	63.4	568.3	1959.2	541.1	311.1	11.4	22.9	3414.0
Jan 1989	276.6	213.2	63.4	565.1	1959.6	546.7	310.1	11.1	25.0	3417.6
Feb	277.3	214.1	63.2	565.1	1960.7	553.3	310.1	11.2	25.9	3426.3
Mar	278.2	215.3	62.9	563.0	1964.2	560.1	316.6	10.5	18.1	3432.5
Apr	278.2	215.7	62.5	559.2	1969.3	568.3	305.0	10.5	20.2	3432.5
May	278.5	216.6	61.9	552.4	1971.6	573.1	302.5	10.5	34.3	3444.4
Jun	279.0	217.2	61.8	549.3	1978.4	574.9	301.4	11.7	26.2	3441.9
Jul	280.0	217.8	62.2	554.1	1989.7	574.7	296.9	11.7	23.0	3450.1
Aug	280.8	218.7	62.1	554.0	2001.9	571.2	286.4	10.5	15.8	3439.8
Sep	281.8	219.2	62.6	555.4	2009.5	568.1	275.5	11.0	24.9	3444.4
Oct	282.8	220.0	62.8	560.6	2017.6	566.2	266.5	11.5	20.7	3443.1
Nov	283.2	220.5	62.7	561.0	2028.1	565.3	264.5	10.8	14.7	3444.4
Dec	284.9	222.2	62.7	563.9	2036.1	563.5	257.0	11.1	19.6	3451.2
Jan 1990	287.4	224.5	62.9	563.4	2040.7	560.0	252.9	11.3	23.2	3451.5
Feb	289.6	226.6	63.0	566.9	2047.3	554.9	251.2	10.6	22.0	3452.9
Mar	291.6	228.4	63.2	568.7	2055.8	549.3	247.0	10.6	16.7	3448.1
Apr	293.5	230.3	63.2	569.8	2063.0	543.7	242.9	10.7	20.0	3450.1
May	294.6	231.9	62.7	567.8	2065.3	540.5	249.6	11.1	25.2	3459.5
Jun	296.5	233.7	62.8	570.0	2068.7	538.0	249.0	10.6	20.9	3457.2
Jul	298.0	235.7	62.3	567.3	2072.9	535.0	249.6	10.5	15.3	3450.6
Aug	301.1	238.4	62.7	570.1	2076.9	529.2	252.8	11.0	23.5	3463.5
Sep	304.5	241.5	63.0	572.1	2079.6	521.9	249.2	11.3	31.0	3465.1
Oct	306.4	243.9	62.5	568.9	2080.4	515.1	250.2	10.5	21.0	3446.1
Nov	307.8	245.0	62.8	570.0	2080.8	512.5	242.7	10.3	19.1	3435.4
Dec	309.7	246.4	63.3	570.6	2081.6	507.0	233.4	10.2	23.1	3425.9
Jan 1991	314.3	251.6	62.7	566.8	2080.6	512.2	229.2	10.7	29.4	3428.9
Feb PE	317.8	254.6	63.2	573.9	2087.2	516.1	226.7	9.7	38.9	3452.4

* Includes Money Market Deposit Accounts

** (4+5+6+7+8+9)

Table 1 - Part 2

Federal Reserve Action and Monetary Growth

Date	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Adjusted Reserve Ratio (3/10)	Currency Ratio (2/4)	Savings & Small Time Deposit Ratio (5/4)	Large Time Deposit Ratio (6/4)	Mon- deposit Liabil. Ratio (7/4)	Foreign Deposit Ratio (8/4)	Treasury Deposit Ratio (9/4)	Money Multi- plier (2+4/1)
Jun 1988	0.0191	0.3613	3.4023	0.8940	0.5316	0.0205	0.0371	2.8752
Jul	0.0191	0.3616	3.3935	0.9021	0.5304	0.0211	0.0386	2.8729
Aug	0.0190	0.3638	3.3998	0.9145	0.5416	0.0195	0.0209	2.8657
Sep	0.0188	0.3669	3.4124	0.9314	0.5367	0.0195	0.0431	2.8547
Oct	0.0188	0.3692	3.4301	0.9435	0.5389	0.0187	0.0488	2.8442
Nov	0.0188	0.3711	3.4459	0.9459	0.5467	0.0194	0.0285	2.8364
Dec	0.0186	0.3727	3.4475	0.9521	0.5474	0.0201	0.0403	2.8343
Jan 1989	0.0185	0.3773	3.4677	0.9674	0.5488	0.0196	0.0442	2.8142
Feb	0.0184	0.3789	3.4697	0.9791	0.5488	0.0198	0.0458	2.8100
Mar	0.0183	0.3824	3.4888	0.9948	0.5623	0.0187	0.0321	2.7979
Apr	0.0182	0.3857	3.5216	1.0163	0.5454	0.0188	0.0361	2.7854
May	0.0180	0.3921	3.5692	1.0375	0.5476	0.0190	0.0621	2.7610
Jun	0.0180	0.3954	3.6017	1.0466	0.5487	0.0213	0.0477	2.7471
Jul	0.0180	0.3931	3.5909	1.0372	0.5358	0.0211	0.0415	2.7572
Aug	0.0180	0.3948	3.6135	1.0310	0.5170	0.0190	0.0285	2.7522
Sep	0.0182	0.3947	3.6181	1.0229	0.4960	0.0198	0.0448	2.7487
Oct	0.0182	0.3924	3.5990	1.0100	0.4754	0.0205	0.0369	2.7604
Nov	0.0182	0.3930	3.6152	1.0077	0.4715	0.0193	0.0262	2.7593
Dec	0.0182	0.3940	3.6107	0.9993	0.4558	0.0197	0.0348	2.7588
Jan 1990	0.0182	0.3985	3.6221	0.9940	0.4489	0.0201	0.0412	2.7413
Feb	0.0182	0.3997	3.6114	0.9788	0.4431	0.0187	0.0388	2.7401
Mar	0.0183	0.4016	3.6149	0.9659	0.4343	0.0186	0.0294	2.7334
Apr	0.0183	0.4042	3.6206	0.9542	0.4263	0.0188	0.0351	2.7260
May	0.0181	0.4084	3.6374	0.9519	0.4396	0.0195	0.0444	2.7143
Jun	0.0182	0.4100	3.6293	0.9439	0.4368	0.0186	0.0367	2.7109
Jul	0.0181	0.4155	3.6540	0.9431	0.4400	0.0185	0.0270	2.6945
Aug	0.0181	0.4182	3.6430	0.9283	0.4434	0.0193	0.0412	2.6853
Sep	0.0182	0.4221	3.6350	0.9123	0.4356	0.0198	0.0542	2.6722
Oct	0.0181	0.4287	3.6569	0.9054	0.4398	0.0185	0.0369	2.6529
Nov	0.0183	0.4298	3.6505	0.8991	0.4258	0.0181	0.0335	2.6482
Dec	0.0185	0.4318	3.6481	0.8885	0.4090	0.0179	0.0405	2.6378
Jan 1991	0.0183	0.4439	3.6708	0.9037	0.4044	0.0189	0.0519	2.6043
Feb PE	0.0183	0.4436	3.6371	0.8994	0.3951	0.0170	0.0677	2.6067

March 3-4, 1991

Table 2

Federal Reserve Action and Monetary Growth

(Compound Annual Rates of Change)

This is accounted for by changes in the:

Date	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jun 1988	9.65	7.69	1.96	-0.07	0.72	0.89	-0.17	-0.24	-0.05	0.89
Jul	7.23	8.29	-1.06	-0.59	-0.45	0.46	-0.42	0.06	-0.03	-0.08
Aug	1.56	4.64	-3.09	1.27	-3.82	-0.32	-0.63	-0.57	0.08	0.91
Sep	0.62	5.38	-4.76	2.91	-5.27	-0.65	-0.86	0.25	-0.00	-1.13
Oct	0.31	4.82	-4.51	1.07	-3.78	-0.87	-0.59	-0.11	0.04	-0.28
Nov	1.24	4.67	-3.43	0.02	-3.14	-0.77	-0.12	-0.38	-0.03	1.00
Dec	2.49	3.41	-0.91	3.03	-2.85	-0.08	-0.32	-0.04	-0.04	-0.61
Jan 1989	-2.73	5.93	-8.67	0.65	-7.37	-0.97	-0.74	-0.06	0.02	-0.19
Feb	1.40	3.25	-1.85	1.48	-2.60	-0.09	-0.55	0.00	-0.01	-0.08
Mar	-1.38	3.86	-5.24	2.00	-5.66	-0.90	-0.74	-0.64	0.06	0.65
Apr	-5.12	0.09	-5.21	1.66	-5.03	-1.46	-0.95	0.76	-0.01	-0.18
May	-8.76	1.42	-10.19	3.50	-9.40	-2.09	-0.94	-0.10	-0.01	-1.15
Jun	-3.83	2.15	-5.98	0.27	-4.93	-1.40	-0.40	-0.05	-0.10	0.63
Jul	8.79	4.11	4.68	-0.85	3.77	0.48	0.42	0.57	0.01	0.28
Aug	1.25	3.48	-2.23	-0.38	-2.64	-1.01	0.27	0.85	0.10	0.58
Sep	2.99	4.58	-1.59	-2.08	0.15	-0.21	0.37	0.95	-0.04	-0.73
Oct	9.70	4.25	5.45	-0.91	3.63	0.87	0.59	0.94	-0.03	0.36
Nov	1.39	1.87	-0.47	0.39	-0.96	-0.72	0.10	0.18	0.06	0.48
Dec	7.30	7.55	-0.26	0.48	-1.72	0.22	0.42	0.79	-0.02	-0.43
Jan 1990	2.78	10.93	-8.15	-0.77	-7.10	-0.54	0.25	0.33	-0.02	-0.30
Feb	8.87	9.41	-0.54	-0.18	-2.10	0.53	0.74	0.28	0.07	0.12
Mar	5.58	8.78	-3.19	-1.45	-3.05	-0.16	0.61	0.41	0.00	0.44
Apr	4.61	8.03	-3.42	0.24	-4.04	-0.26	0.55	0.38	-0.01	-0.27
May	-0.60	4.70	-5.30	2.85	-6.42	-0.76	0.10	-0.60	-0.04	-0.42
Jun	6.17	7.75	-1.58	-0.36	-2.49	0.37	0.37	0.13	0.04	0.35
Jul	-1.04	6.44	-7.48	1.46	-8.17	-1.10	0.04	-0.14	0.00	0.44
Aug	8.54	13.07	-4.54	-0.60	-4.28	0.51	0.69	-0.16	-0.04	-0.66
Sep	7.84	14.36	-6.52	-1.15	-6.24	0.38	0.75	0.37	-0.02	-0.61
Oct	-1.17	7.82	-8.99	0.59	-9.56	-0.97	0.30	-0.19	0.06	0.77
Nov	3.30	5.52	-2.22	-1.92	-1.61	0.27	0.27	0.60	0.02	0.15
Dec	2.98	7.97	-4.99	-3.06	-2.93	0.11	0.46	0.73	0.01	-0.30
Jan 1991	2.08	19.01	-16.93	3.41	-18.11	-1.11	-0.74	0.23	-0.05	-0.56
Feb FF	15.75	14.48	1.28	-0.63	0.39	1.53	0.19	0.42	0.09	-0.71
1988	1988	1988	1988	1988	1988	1988	1988	1988	1988	1988
5.02	6.68	-1.67	0.62	-1.74	-0.18	-0.22	-0.14	0.00	-0.01	
1989	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
0.92	3.55	-2.63	0.52	-2.73	-0.61	-0.18	0.35	0.00	0.02	
1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH	1990 -IH
4.57	8.27	-3.70	0.06	-4.20	-0.14	0.44	0.15	0.01	-0.01	
1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH	1990 -I IH
3.41	9.20	-5.79	-0.78	-5.46	-0.13	0.42	0.20	0.00	-0.04	
1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH
8.92	16.74	-7.83	1.39	-8.86	0.21	-0.27	0.32	0.02	-0.63	
5.51	7.54	-2.04	2.17	-3.39	0.34	-0.69	0.12	0.01	-0.60	

Shadow Open Market Committee

Table 3

Federal Reserve Action and Monetary Growth
(Compound Annual Rates of Change)

Date	THREE-MONTH MOVING AVERAGES									
	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jun 1988	8.73	8.04	0.69	0.51	0.20	0.42	-0.01	-0.47	-0.01	0.06
Jul	7.12	7.61	-0.48	0.47	-0.56	0.34	-0.25	-0.46	-0.02	0.00
Aug	6.14	6.87	-0.73	0.20	-1.18	0.34	-0.41	-0.25	0.00	0.57
Sep	3.13	6.10	-2.97	1.19	-3.18	-0.17	-0.64	-0.09	0.02	-0.10
Oct	0.83	4.95	-4.12	1.75	-4.29	-0.61	-0.70	-0.14	0.04	-0.17
Nov	0.72	4.95	-4.23	1.33	-4.06	-0.76	-0.52	-0.08	0.00	-0.14
Dec	1.35	4.30	-2.95	1.37	-3.26	-0.57	-0.34	-0.18	-0.01	0.03
Jan 1989	0.33	4.67	-4.34	1.23	-4.45	-0.61	-0.39	-0.16	-0.02	0.06
Feb	0.39	4.19	-3.81	1.72	-4.27	-0.38	-0.54	-0.03	-0.01	-0.29
Mar	-0.90	4.35	-5.25	1.37	-5.21	-0.65	-0.68	-0.24	0.02	0.13
Apr	-1.70	2.40	-4.10	1.71	-4.43	-0.82	-0.75	0.04	0.01	0.13
May	-5.09	1.79	-6.88	2.38	-6.70	-1.48	-0.88	0.01	0.01	-0.23
Jun	-5.90	1.22	-7.13	1.81	-6.46	-1.65	-0.76	0.20	-0.04	-0.23
Jul	-1.27	2.56	-3.83	0.97	-3.52	-1.00	-0.30	0.14	-0.03	-0.08
Aug	2.07	3.24	-1.18	-0.32	-1.27	-0.64	0.10	0.46	0.00	0.49
Sep	4.34	4.06	0.29	-1.10	0.43	-0.24	0.35	0.79	0.02	0.04
Oct	4.65	4.10	0.54	-1.12	0.38	-0.11	0.41	0.91	0.01	0.07
Nov	4.69	3.57	1.13	-0.87	0.94	-0.02	0.35	0.69	-0.00	0.04
Dec	6.13	4.56	1.57	-0.01	0.32	0.12	0.37	0.63	0.00	0.14
Jan 1990	3.82	6.78	-2.96	0.03	-3.26	-0.35	0.26	0.43	0.01	-0.08
Feb	6.32	9.30	-2.98	-0.15	-3.64	0.07	0.47	0.47	0.01	-0.20
Mar	5.75	9.71	-3.96	-0.80	-4.08	-0.06	0.53	0.34	0.02	0.08
Apr	6.35	8.74	-2.39	-0.46	-3.06	0.03	0.63	0.36	0.02	0.10
May	3.20	7.17	-3.97	0.55	-4.50	-0.40	0.42	0.06	-0.01	-0.00
Jun	3.39	6.83	-3.43	0.91	-4.32	-0.22	0.34	-0.03	0.00	-0.11
Jul	1.51	6.30	-4.78	1.32	-5.69	-0.50	0.17	-0.21	0.00	0.12
Aug	4.56	9.09	-4.53	0.17	-4.98	-0.07	0.37	-0.06	0.00	0.04
Sep	5.11	11.29	-6.18	-0.10	-6.23	-0.07	0.49	0.02	-0.02	-0.28
Oct	5.07	11.75	-6.68	-0.39	-6.69	-0.03	0.58	0.01	-0.00	-0.17
Nov	3.32	9.23	-5.91	-0.83	-5.80	-0.11	0.44	0.26	0.02	0.10
Dec	1.70	7.10	-5.40	-1.46	-4.70	-0.20	0.35	0.38	0.03	0.20
Jan 1991	2.79	10.83	-8.05	-0.52	-7.55	-0.24	-0.00	0.52	-0.01	-0.24
Feb PE	6.94	13.82	-6.88	-0.09	-6.88	0.17	-0.03	0.46	0.02	-0.52

March 3-4, 1991

Table 4

Federal Reserve Action and Monetary Growth
(Compound Annual Rates of Change)
(Memo)

Date	Reserve Growth Rate Month to Month	Reserve Growth Rate Three-month Moving Average
Jun 1988	4.86	6.82
Jul	9.57	6.56
Aug	-3.25	3.73
Sep	-3.95	0.79
Oct	1.33	-1.96
Nov	0.79	-0.61
Dec	-6.09	-1.32
Jan 1989	-1.41	-2.24
Feb	-3.04	-3.51
Mar	-5.96	-3.47
Apr	-7.00	-5.34
May	-10.45	-7.80
Jun	-2.03	-6.49
Jul	6.74	-1.91
Aug	-1.93	0.92
Sep	11.17	5.33
Oct	3.51	4.25
Nov	-1.22	4.49
Dec	0.46	0.92
Jan 1990	3.38	0.87
Feb	1.21	1.68
Mar	4.61	3.07
Apr	-0.32	1.83
May	-8.65	-1.46
Jun	0.75	-2.74
Jul	-8.36	-5.42
Aug	7.30	-0.10
Sep	5.62	1.52
Oct	-8.84	1.36
Nov	5.41	0.73
Dec	11.52	2.70
Jan 1991	-12.08	1.62
Feb PE	11.63	3.69
	1988	
	3.65	
	1989	
	-0.93	
	1990 -IH	
	0.16	
	1990 -IIR	
	2.11	
	1991 -IH	
	-0.23	
	-2.33	

Source: Federal Reserve Board; Heinemann Economic Research

**THE TREASURY'S PROPOSALS TO
RESTRUCTURE THE U.S. BANKING SYSTEM**

Anna J. SCHWARTZ
National Bureau of Economic Research, New York

The Treasury unveiled a three-part plan in early February to reshape the U.S. commercial banking system. The plan deals with: (1) the number of agencies supervising banks and the scope of their authority; (2) the limits on deposit insurance; and (3) the ownership and permissible activities of banks. This report is concerned with part 3 of the Treasury's proposals.

Extending the Banks' Writ

If the Treasury's proposals were adopted, restrictive bank legislation of 1927 and 1933 would be repealed, and the range of permissible banking activities would be expanded. The objective of the changes is to enhance the efficiency and profitability of U.S. banks, and to make them more competitive with the industry in the rest of the world. These banks are allowed to operate in diverse businesses.

The legislation that would be consigned to the dustheap are the McFadden Act of 1927 and the Banking Act of 1933, sometimes referred to as the Glass-Steagall Act.

The McFadden Act of 1927 limited branches of a state member and national bank located in a given state to head-office cities where state law permitted state bank branches. Geographical restrictions on banking, however, have been eroded in recent years by automated teller machines that permit deposit and withdrawal across state lines, the different types of activities that bank holding companies undertake across state lines, and checking accounts nationwide that stock brokerages offer. The Treasury's proposal would permit national banks to open branches across state lines without restrictions and to buy banks in other states.

March 3-4, 1991

The Banking Act of 1933 terminated commercial bank underwriting of corporate bonds and restricted bank underwriting to U.S. government securities and general obligation state and municipal securities. Banks have been adroit since 1968 in finding ways to circumvent Glass-Steagall restrictions. Exploiting loopholes, however, is not the most effective way of doing business. The Treasury's proposal would allow banks to engage in investment banking activities, principally underwriting corporate securities including stock, and to sell mutual funds. Direct investment in real estate might also be permitted. Authority for banks to undertake such ventures would be granted, contingent on their capital adequacy. In addition, banks would be permitted to sell insurance if the states that chartered them or in which they operate allowed it.

One further momentous change the Treasury plan envisages is industrial ownership of banks under safeguards. The safeguards include insulating banks from their nonbank affiliates by firewalls that require each to maintain separate employees, officers, directors, places of business, and names.

Merit of the Treasury Proposals

Over the past half century banks have operated subject to regulations that were based on misconceptions about their operations during the 1920s and the bank failure record of 1930-33. The verdict of the New Deal was that banks had lent recklessly to speculative ventures, paving the way for the Great Depression, and that competitive behavior by banks fostered risk taking. The policy objective was therefore to restrain competition by controlling entry into the industry, the services it was authorized to offer, the prices it could pay and charge, and the geographical areas where it could operate.

Because the regulations protected the monopoly position of existing banks, initially they had no quarrel with the New Deal approach. The effort to limit bank competitive behavior, however, broke down. Financial innovations, in response to interest rate instability and regulation, in

combination with recent changes in information and data-processing technologies have contributed to unraveling the skein of regulatory controls. These changes have made it attractive for banks to operate as multiproduct service centers over large geographical areas. Large size has become desirable to acquire the amount of capital needed to participate in many markets.

The Treasury proposals are a step in the direction of regulatory withdrawal from interference with the competitive evolution of the financial structure. They are designed to eliminate geographic and product constraints that have fostered the survival of small, inefficient banks and specialized lending institutions.

Political Roadblocks Faced by the Treasury

A widespread view is that the Treasury will encounter strong political opposition to the realization of its proposals. The present parlous state of hundreds of problem banks is ammunition for opponents of liberalization of banking regulation. They attribute the catastrophe the savings and loan industry has experienced to the deregulation introduced by the Depository Institutions Deregulation and Monetary Control Act of 1980 and the Garn-St Germain Act of 1982.

The opponents of bank regulation reform include the groups that believe they will be injured by the change: small- and medium-size banks, insurance companies, commercial companies in the money-lending business through money funds or car loans, brokerage firms, real estate agents. These groups find their self-interest sustained by widely held views of the public. Opposition to financial concentration has deep roots in the U.S. Support for small, independent banks responsive to local needs explains the long-standing rejection of nationwide branching.

Some individuals in the regulatory community and some academics foresee dangers in permitting banks to be affiliated with or owned by commercial concerns, even if the banks were

March 3-4, 1991

prohibited from engaging directly in nonbanking activities. Corrigan of the New York Fed would not oppose "sizable, but non-controlling, investments in banking institutions" by commercial firms. In the presence of control or influence by commercial firms, however, firewalls would be useless, in his view, and concerns about unfair competition, conflicts of interest, concentration, and de facto extension of the safety net would be valid.

Litan's argument is that, if banks were allowed to engage directly in commercial activities, rather than through affiliates financed by uninsured funds, banks would have an unfair advantage over commercial firms. Access to insured deposits would lower the cost of raising funds for such banks compared to the cost for commercial firms. The latter would therefore seek to become part of a banking complex. This is a problem for Litan because managerial talent in the U.S. has been less conspicuous in banking than in commerce.

However, Litan does not like any better bank affiliation with nonbanks under the aegis of a holding company. He envisages the possible use of insured bank deposits by commercial conglomerates to subsidize loans to customers of their nonbanking operations, and to pay for common overhead costs. Failure of a nonbank unit of a holding company could trigger a run on a bank unit. He advocates the strongest possible insulation of bank from nonbank affiliates, including higher capital requirements for conglomerates or narrow banking provisions for bank affiliates.

Prospects for Congressional Action

If all three parts of the Treasury's proposals could be simultaneously enacted, the prospects for each of the parts would be less problematical. However, changing the terms of deposit insurance and changing the assignment of regulatory responsibility are likely to be issues as divisive as the banking proposals. Predictions of stalemate on the Treasury's banking proposals, in part for the reasons noted above, and in part because the leadership of the House and Senate banking committee

does not command unqualified support, are common. Congress may, nevertheless, legislate repeal of the McFadden Act and the Glass-Steagall Act. Doing something for the banks may be politically unavoidable, even if it balks at permitting banks to affiliate with nonbanks.

March 3-4, 1991

**MODERNIZATION OF THE FINANCIAL SYSTEM:
TREASURY RECOMMENDATIONS RELATED TO DEPOSIT INSURANCE**

Robert H. RASCHE
Michigan State University

There are four aspects of the recently released Treasury study and recommendations on *Modernization of the Financial System* that are related to deposit insurance. These include recommendations on coverage limits of deposit insurance, capital requirements, risk based deposit insurance premiums and reinsurance programs.

Recommendations for limits on coverage include:

- (1) \$100,000 limit per individual per institution plus an additional \$100,000 limit on IRA deposits. In addition a study to examine the feasibility of imposing a system-wide limit on coverage per individual is proposed.
- (2) Deposit insurance coverage on certain types of pass-through accounts and brokered deposits should be eliminated. (Presumably these restrictions would become irrelevant if system-wide limits on individual coverage are implemented.)
- (3) Deposit insurance coverage on nondeposit coverage should be eliminated and coverage on uninsured deposits should be limited.

There are a number of issues that do not appear to be addressed adequately by these recommendations. The role of deposit insurance is defined as "intended to protect small, unsophisticated depositors who could not be expected to protect themselves" [Treasury, 1991, p. 17]. However, I have been unable to find any well articulated definition of 'small unsophisticated depositor' anywhere in the recommendations or study documents. Without such a definition, there is no rationale for the \$100,000 cap, other than that it is the nominal status quo. It is important to recognize that, so long as inflation continues, a fixed nominal cap is a shrinking real cap. This is dramatically illustrated by Figure 1 reproduced from the recent report on the deposit insurance system by the Congressional Budget Office [CBO, 1990, p. 37]. From 1934 to 1974 adjustments

March 3-4, 1991

to the nominal cap maintained the real cap around \$40,000, 1982 dollars. By 1980 the real value of the deposit insurance cap had eroded to around \$50,000, 1982 dollars. The current nominal cap has depreciated to less than \$80,000, 1982 dollars. Since there is no evidence that the real per capita deposit holdings of the 'small unsophisticated depositor' have increased over the past 50 years, a reasonable proposal is to maintain the \$100,000 nominal cap in deposit insurance until such time that its real value of 1982 dollars reaches \$40,000. At such time the limit could be indexed to the CPI (or the CPE deflator) so that the real value is permanently maintained. This would reduce uncertainty about future deposit insurance coverage and future taxpayer exposure and at the same time prevent capricious changes in coverage such as occurred in 1980.

A second issue not addressed in the Treasury recommendations is the extent to which deposit insurance coverage for 'small unsophisticated depositors' should be applied to time deposits as against transactions deposits. A reasonable case can be made that there is no need for more than \$20,000 of time deposit insurance coverage, since implicit private insurance is cheaply available beyond this amount. Such private insurance is in the form of money market mutual funds that restrict their portfolios to Treasury bills. These MMMFs are widely advertised, and the only difference between such holdings and insured time deposits is a minimal amount of interest rate risk. Concerns that such a proposal would place the banking system at a competitive disadvantage are unwarranted, since under the Treasury proposal, any bank that satisfies the capital requirements to form a FSHC could set up an affiliated MMMF whose portfolio would be restricted to Treasury bills.

A third question is why it is necessary to study the feasibility of system wide limits on coverage per depositor. Benston and Kaufman [1988, p. 34] propose a very inexpensive system for implementing system wide coverage limits. "If a bank failed, a depositor who wanted to be paid would have to file a sworn statement giving the amounts of insured deposits at all banks at the time of the

failure. Deposits in the failed bank would be covered only to the extent that the depositor's funds in other insured banks totaled less than \$100,000." An approximate, though not exact audit can be added to this procedure inexpensively. All that is required is that depository institutions report on the 1099-INT form for any insured account the balance in that account as of the end of each year. A depositor claiming less than the amount shown on the 1099-INT reports from other banks at the end of the previous year, should be required to document the accuracy of the smaller amount before the deposit insurance claim is processed.

The fourth and most dangerous problem in the Treasury recommendations is that the proposals allow for the possibility that an institution is "too big to fail." The Treasury recommendations leave a loophole ("exception") for the extension of deposit insurance coverage beyond insured deposits for cases of "systemic risk."

The issue of systemic risk appears to be a strawman. There are three well-defined possibilities of systemic risk: (1) a flight to currency such as occurred in the Great Depression, (2) inadequate portfolio diversification because of geographical restrictions on branching, and (3) correspondent banking relationships. Each of these situations can generate an externality where a perfectly solvent bank is subject to a run induced by a run on an insolvent bank. All of these externalities can be handled without recourse to deposit insurance.

The concern that the deposit insurance system must provide for coverage against a general flight to currency seems to be generated by a misunderstanding of the history of monetary policy in the early 1930s. (The Treasury alleges that "the Federal Reserve's actions during this period (1930s) to ease the liquidity problems of troubled banks through the discount window—its lender of last resort function—were ineffective" [Treasury, 1991, p. 1].) The Congressional Budget Office states "the Federal Reserve did not meet the needs of banks experiencing runs, possibly because at

first it considered them as having a solvency problem and not a liquidity problem" [CBO, 1990, p. 5]. There apparently is still an unwillingness to admit that in the 1930s the Fed failed to live up to its statutory responsibility to prevent contagion in the event of bank runs. The logical conclusion from the experience of the 1930s *is not* that we need a deposit insurance system to prevent a general flight to currency, *but rather that* we need a Fed that fulfills its responsibilities. In contrast to the above views of the 1930s, the Council of Economic Advisers states "Instead of responding to the panic by easing constraints on money growth and thus minimizing the impact of the panic, the Federal Reserve allowed the money supply to fall. That contributed to a severe contraction in bank lending which in turn reduced economic activity and led to further loan losses for banks" [EROP, 1991, p. 160]. Postwar experiences, including the Penn Central bankruptcy and the 1987 stock market crash, suggest that the Fed has learned to recognize situations where a general flight to currency is threatened, and responds quickly and responsibly to these conditions.

The second source of systemic risk results from restrictions on portfolio diversification because of geographic restrictions on bank branching. The Texas experience after the break in world energy markets and the recent events in New England are cited as examples of this type of problem. Recognition that one bank is experiencing solvency problems because of a regional economic slowdown, can generate suspicion about other banks in the area because it is likely that they hold loan portfolios that are similar to that of the troubled bank. Thus these 'neighboring' banks can be subject to runs, even if they are solvent. The solution to this type of regional problem is recognized in the Treasury recommendation to allow nationwide bank branching. Such branching will permit broad geographical portfolio diversification and eliminate the Texas and New England type regional difficulties. Again, the source of systemic risk can be dealt with outside the deposit insurance system and without recourse to "too big to fail."

The third source of systemic risk is contagion introduced through correspondent banking practices. The example that is cited here is Continental Illinois: "If uninsured depositors in Continental had not been protected, its failure would have significantly weakened a number of other banks" [Treasury, 1991, p. 4]. This example is overblown. "Economic losses, though not realized losses to Continental's creditors totaled only about 2 or 3 cents on the dollar. Even if these losses had been as large as 10 percent, none of these banks (respondents) would have suffered a loss greater than their capital, and only two would have suffered a loss between 50 and 100 percent of capital" [Benston and Kaufman, 1988, p. 17]. Once again, there are inexpensive alternatives to a deposit insurance system to deal with such externalities if their potential costs are judged to be unacceptable. Such alternatives involve booking all correspondent accounts in an affiliated "narrow bank" or an affiliated "secure depository" [Task Force, 1989, pp. 20-22] or collateralizing correspondent balances as "secured deposits" [Task Force, 1989, pp. 23-24]. In summary, the Treasury recommendations are inadequate with respect to the crucial issue of "too big to fail." The justifications for loopholes in taxpayer liability are faulty.

The second area of the Treasury recommendations related to deposit insurance are the proposals dealing with capital requirements. The Treasury recommends five "supervisory zones" ordered by the size of risk adjusted capital holdings. Banks with the highest amounts of risk based capital who qualify for "zone 1" would be allowed to form a financial services holding company (FSHC) which could engage in a broad range of activities. Banks in "zone 2" would be considered adequately capitalized for banking activities, but insufficiently capitalized to organize a FSHC. Banks in "zones 3 and 4" are those that fall below minimum capital requirements and would be subject to regulatory restrictions on dividends and asset growth. Banks in "zone 5" with the least amount of capital could be placed into conservatorship for subsequent sale or liquidation.

March 3-4, 1991

The "supervisory zones" are similar to the four tranche ranges suggested in other recommendations for reform [Benston and Kaufman, 1988, pp. 63-68; Task Force, 1989, pp. 12-15; Shadow Financial Regulatory Committee, Statement 41, February 13, 1989; and Statement 65, February 11, 1991] (see attached table). However, there are important distinctions which cause the Treasury recommendations to fall short of the alternative proposals. First the alternative proposals call for capital to be valued based on the *market value* of assets and liabilities; the Treasury recommendations are in terms of book value measures, with only limited supplementary reporting of estimated market values. Second, the alternative proposals make specific recommendations for the size of the tranches; the Treasury proposal as published leaves specific minimums for the supervisory zones unspecified. Third, the alternative proposals are for mandatory supervisory interventions when capitalizations fall below required levels, while regulatory interventions under the Treasury proposal are only presumptive. In particular, the Treasury proposals take a strong position *against* mandatory intervention: "a supervisory policy that is inflexible, rule oriented and mechanistic can raise costs by forcing actions in circumstances that call for patience" [Treasury, 1991, p. 39]. I find this statement incredible. Ely & Company estimates from last summer [*Wall Street Journal*, July 20, 1990] measure the cost to the taxpayers at that time of regulatory forbearance for thrift institutions at \$76 billion, or 52 percent of the estimated total cost of the thrift institution problem to that date. Since we clearly see the marginal costs of patience, the proof of significant marginal benefits to discretionary intervention must be provided for anyone advocating this discredited approach.

The third area of the Treasury recommendations related to deposit insurance are the proposals dealing with risk based deposit insurance premiums. The Treasury proposal is to tie premiums for deposit insurance to capital levels relative to risk weighted assets [Treasury, 1991, pp. 33-34]. Unfortunately the proposal does not address the arbitrariness of the weights assigned to asset risk classes, nor does it address the issue that this approach fails to consider risk reduction that is

accomplished through portfolio diversification [Benston and Kaufman, 1988, pp. 38-42]. It is disturbing that the Treasury has advanced this proposal without any response to the assertion that "a large body of recent literature has considered the problem (of risk based deposit insurance premiums) without devising an operational way of determining the premiums" [Benston and Kaufman, 1988, p. 35].

The fourth area of Treasury recommendations is proposals for reinsurance to share the liability of depository institution failures with the government deposit insurance system. There are two forms of reinsurance: (1) a proposal for a formal demonstration project with reinsurance through private insurance companies [Treasury, 1991, pp. 34-36], and (2) an implicit reinsurance system through a proposal that depository institutions be encouraged to hold more subordinated debt [Treasury, 1991, p. 33]. The demonstration project appears to be an interesting experiment. It is unfortunate that the Treasury has not advocated more forcefully the development of subordinated debt markets both as protection against taxpayer liability and as a market based means of measuring the riskiness of depository institutions.

In summary, the Treasury proposals with respect to deposit insurance restructuring leave many questions unaddressed, and in some cases select options that are inferior to previous proposals.

March 3-4, 1991

REFERENCES

Benston, G. and Kaufman, G., *Risk and Solvency Regulation of Depository Institutions*, Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, Monograph Series in Finance and Economics, Monograph 1988-1.

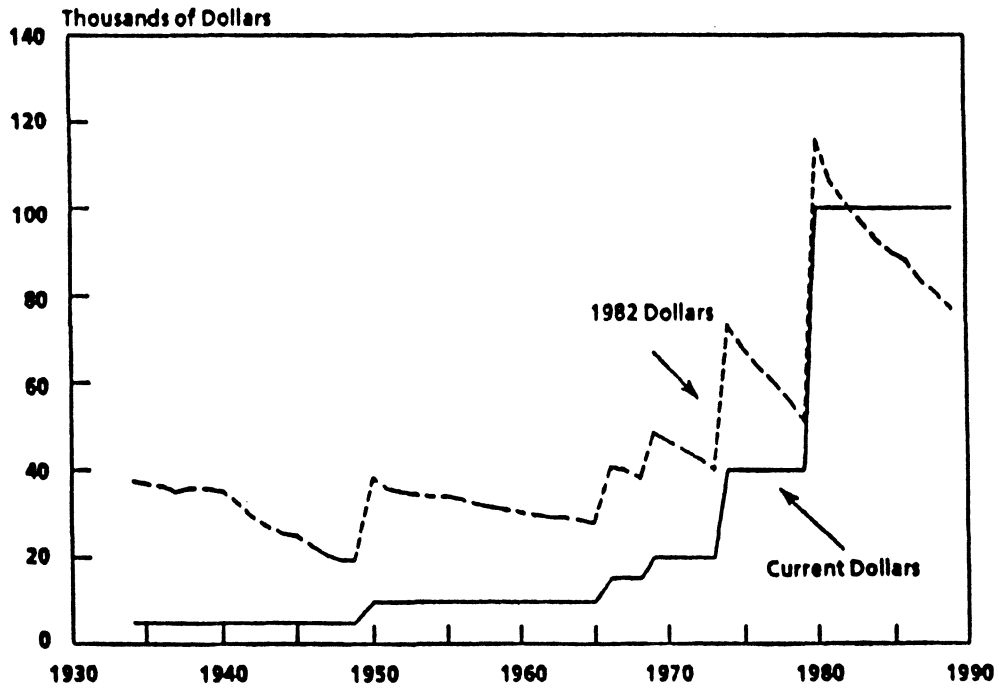
Congressional Budget Office, *Reforming Federal Deposit Insurance*, September, 1990.

Blueprint for Restructuring America's Financial Institutions: Report of a Task Force, Washington, DC: Brookings Institution, 1989.

Economic Report of the President, February, 1991.

U.S. Treasury, *Modernizing the Financial System: Recommendations for Safer, More Competitive Banks*, Washington, DC: February, 1991.

Federal Deposit Insurance Coverage in Real and Nominal Terms, 1934-1989



SOURCE: Congressional Budget Office.

FIGURE 1

TABLE 1
ILLUSTRATIVE REORGANIZATION RULES
FOR FEDERALLY INSURED COMMERCIAL BANKS
Capital-to-Asset Ratio
(All accounts valued at market)

**10 PERCENT
OR GREATER**

No problem-minimum regulation and supervision level. Subject only to general reporting and examination requirements. All intra-holding company transfers must be fully disclosed and fraud provisions strictly enforced.

6-9.9 PERCENT

Potential problem-more intensive regulatory supervision and monitoring. Regulatory agency discretion to reduce or suspend dividend payments and/or up- or down-stream payments to parent or affiliates.

3-5.9 PERCENT

Problem-intensive regulatory supervision and monitoring. Mandatory suspension of dividend payments, interest payments on and redemption of maturing subordinated debt, and outflow of funds to parent or affiliate.

**UNDER
3 PERCENT**

Reorganization-mandatory recapitalization, sale, merger, or liquidation by federal insurance agency in orderly fashion. May require formation of "bridge" institution or "trusteeship" by insurance agency for no more than two years. Non-deposit funds distributed up to 90 days before to be recovered.

SOME OBSERVATIONS ON RECENT CHANGES IN RESERVE REQUIREMENTS

Robert H. RASCHE
Michigan State University

On the Apparent Insignificance of the Reserve Requirement Changes

In December, 1990 the Board of Governors announced that reserve requirements applicable to nonpersonal time and savings deposits and to Eurocurrency liabilities would be reduced from three percent to zero. For weekly reporting institutions, the reduction was phased in over the reserve maintenance periods ending December 13, 1990 and December 27, 1990. For quarterly reporting institutions the changes became effective January 17, 1991 (see Table 1.15, *Federal Reserve Bulletin*, January, 1991, p. A8). In fact, it appears that these reductions in reserve requirements had little or no net impact on the total reserves available to depository institutions, since the reserves released by the reduction in reserve requirements have been almost offset (sterilized) by open market sales.

This conclusion is derived from the data in Table 1, which are for the most part available in Statistical Release H.3 of February 7, 1991. One caution is that some of the data are preliminary and subject to revision. Column (2), (3) and (4) of this table are from Tables 2, 3 and 1 respectively of the H.3 release. Adjusted Reserves are adjusted for reserve requirement changes using the Board of Governors break adjustment technique. Seasonal factors for required reserves are not available, so Column (5) is constructed using the seasonal factors for required reserves adjusted (i.e. column (5) is column (2) multiplied by Column (3) and divided by Column (4)). Column (6) is the required reserves against nonpersonal time and savings deposits and against Eurocurrency liabilities, obtained from the Board of Governors. Column (7) is the break adjustment used by the Board of Governors to adjust required reserves for the recent changes in reserve requirements. Column (8)

March 3-4, 1991

is the implicit Federal Reserve estimate of the reserves released by the reduction in reserve requirement ratios, computed as the difference between Columns (6) and (7). From this it can be seen that the Board estimates that approximately 13 billion of reserves were released by the change in reserve requirements, roughly half of this in the two weeks ending December 26, 1990 and the second half in the two weeks ending January 9, 1991.

The estimated reserves released by the reserve requirement changes can be compared with the reserves absorbed through open market sales over the same period. The latter can be computed by adding excess reserves (column (9)) to seasonally adjusted required reserves (column (5)) to obtain an estimate of Total Reserves (SA) in Column (10). Reserves absorbed by open market sales can be measured as the decrease in SA Total Reserves from the two weeks ending December 12, 1990 (Column (11)). The sterilization ratio, reflecting the fraction of the estimated release of reserves that have been offset through open market sales is computed in Column (12) as the ratio of Column (11) to column (8). In the four weeks from December 13, 1990 through January 9, 1991 approximately two-thirds of the released reserves were sterilized. In the four weeks from January 10, 1991 through February 6, 1991 the fraction of released reserves that have been sterilized averages over ninety percent. Thus the impact of the reduction in required reserves against nonpersonal time and savings deposits and Eurocurrency liabilities on the reserve position of the banking system has been negligible.

Appropriate Reserve Aggregate Adjustments for Reserve Requirement Changes

Both the Board of Governors and the Federal Reserve Bank of St. Louis publish measures of bank reserves and the monetary base that are adjusted for changes in reserve requirements. The Board's adjustment technique is known as "break adjustment" while the St. Louis Fed refers to its adjustment as a "RAM adjustment." The idea for this type adjustment originated with Karl Brunner

who proposed constructing an index that incorporated the impact on the banking system of both open market operations and changes in reserve requirements. It is clear from Karl's work, that he proposed making such adjustments in an environment in which legal reserve requirements are a binding constraint on the portfolio allocation decisions of depository institutions.

Since the reduction of reserve requirements in December, 1990, there have been suggestions that some banks may no longer face effective reserve requirements. The argument is that the desired holdings vault cash and deposits at the Federal Reserve of these institutions to cover normal transactions and avoid overdrafts is now larger than the legal minimum balances. This raises a question as to whether the traditional adjustments to reserve and base measures remain appropriate.

As an example, consider a banking system in which each institution initially is legally required to hold reserves *exactly equal* to those it would hold as transactions balances in the absence of legal reserve requirements. Excess reserves (above required) in this banking system are typically very close to zero, as total reserves are efficiently allocated to the individual banks through the federal funds market. On the margin, the legal reserve requirement is just binding on each bank and the banking system as a whole.

Now assume that the central bank lowers the required reserve ratio(s) for these banks. Since the banks have to maintain their previous levels of cash holdings (relative to transactions deposits) to satisfy their unchanged demand or clearing balances, there is no change in the desired portfolio share of cash for any bank in the system. All that occurs as a result of the reduction in reserve requirement is that the names given to portions of the reserves in the system change: excess reserves increase by exactly the same amount as required reserves decline. No bank has any incentive to lend out any additional reserves; bank loans and total transactions deposits remain unchanged. The legal reserve requirement becomes an ineffective (nonbinding) constraint on all institutions and the

March 3-4, 1991

banking system as a whole. The reserve (or base) multiplier does not change in response to the change in reserve requirements once the legal reserve requirement becomes an ineffective constraint. Under these conditions the marginal reserve requirement tax rate is zero.

Now consider what happens if the central bank had conducted an open market purchase of government securities rather than reducing legal reserve ratios. In this case some banks, and the banking system as a whole, initially find that the share of cash in their portfolios exceeds the share desired to cover normal transactions demand, and they initiate an expansion of bank credit. Subsequently, bank loans and total transactions deposits expand.

Once reserve requirements become a nonbinding constraint on banks, further reductions of reserve requirements are not equivalent to open market purchases. Under these conditions it is not appropriate to make the traditional "break adjustment" or "RAM adjustment" to the monetary base index. Continuation of the adjustment procedures under these circumstances biases the measured growth rate of the monetary base upwards.

Is this a serious problem for measurement of the monetary base at the present time? It is impossible to answer this question from the aggregate data; individual bank data must be examined. Recent data on aggregate excess reserves suggest that the question should be examined. In the four reserve maintenance periods since the reduction in reserve requirements, aggregate excess reserves are highly volatile, and have averaged \$2.3 billion. This contrasts with an average of \$900 million over the period January through November, 1990 and an average of \$561 million in the two weeks prior to the reduction in reserve requirements. The high recent levels of excess reserves have occurred even though the fed funds rate has been kept above six percent by the Fed.

TABLE 1
REQUIRED RESERVES AND ASSOCIATED DATA

(1) Reserve Maintanance Period	(2) Required Reserves (NSA)	(3) Required Reserves Adjusted (SA)	(4) Required Reserves Adjusted (NSA)	(5) Estimated Required Reserves (SA)	(6) Required Reserves Against NPT&Euro	(7) FRB Break Adj.	(8) FRB Estimate Reserves Release	(9) Excess Reserves	(10) Total Reserves (SA)	(11) Reserves Absorbed	(12) Sterilization Ratio
12/12/90	61,513	58,407	59,499	60,384	13,526	0	0	561	60,945	0	
12/26/90	56,113	59,144	60,585	54,779	6,952	13,458	6,506	1,922	56,701	4,244	.65
1/9/91	51,481	59,158	62,775	48,515	457	13,489	13,032	3,592	52,107	8,838	.68
1/23/91	48,478	58,042	59,766	47,077	228	13,261	13,033	937	48,014	12,931	.99
2/6/91	46,446	58,384	57,731	46,971	0	13,033	13,033	2,751	49,722	11,273	.86
2/20/91	46,819	59,146	58,105	47,658	0	13,033	13,033	1,929	49,587	11,358	.87