SHADOW OPEN MARKET COMMITTEE (SOMC)

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SHADOW OPEN MARKET COMMITTEE

The Shadow Open Market Committee met on Sunday, September 29, 1991 from 2:00 PM to 6:00 PM in Washington, D.C.

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SOMC POLICY STATEMENT SUMMARY

Washington, September 30—The Shadow Open Market Committee today called on the Federal Reserve System to avoid further easing by holding the current growth rate of the monetary base to a range of 5 percent to 6 percent. The SOMC said that the monetary base (bank reserves and currency) "remains the most reliable indicator of the thrust of current monetary policy."

Slow growth of M2 (currency, checking accounts and individual thrift deposits) has raised concerns about whether money growth is adequate to sustain the current recovery. The Committee said that the "reported growth of M2 is misleading; monetary stimulus is understated."

The committee also said that the Federal Reserve should stop making loans to failing banks. The committee charged that "this practice only adds to the price that taxpayers must pay to protect depositors."

In a policy statement, the Shadow Committee, a group of academic and business economists who regularly comment on economic issues, recommended that the Treasury Department overhaul bidding practices in the government securities market. However, the committee said that an increase in regulation would be counterproductive.

The SOMC rejected proposals that western nations bail out the Soviet economy. The Committee said such actions "would waste scarce resources" and delay needed reforms in the Soviet republics.

The Shadow Open Market Committee meets in March and September. It was founded in 1973 by Professor Allan H. Meltzer of Carnegie-Mellon University and the late Professor Karl Brunner of the University of Rochester.

The Committee charged that the so-called credit crunch was a red herring. The recent drop in business loans neither indicates a shortage of credit nor a refusal by bankers to lend. To the contrary, banks are cutting loan rates in an effort to drum up business. Bank loans (especially bank loans to business) always lag behind the economic cycle. Banks typically buy Treasury securities in the early stage of an expansion.

The committee asserted that a modest recovery with growth in consumer spending below the growth of output will have lasting benefits. The expansion will be durable. Inflation will continue to fall. The saving rate will increase, providing resources for investment and productivity gains.

Since the recession was moderate, the recovery is likely to be moderate as well. Rapid growth in demand would be dissipated in rising prices. A boom in consumer spending would risk rapid growth of imports, thus increasing trade frictions abroad and calls for protection at home

SHADOW OPEN MARKET COMMITTEE
Policy Statement
September 30, 1991

A moderate economic recovery is underway. We believe growth will continue. Inflation has fallen below the average rate of 4 1/2 percent that persisted through the last half of the 1980s. We expect further declines. Market interest rates have fallen, reflecting the decline in inflation. Markets have shown, once again, that the best way to reduce interest rates is to maintain moderate money growth. A steady monetary policy will result in lower inflation and lower interest rates.

To achieve sustained economic growth and stable prices, we urge the Federal Reserve to limit the growth rate of the monetary base to the range of 5 percent to 6 percent. The Federal Reserve should desist from making loans to failing banks. This practice only adds to the price that taxpayers must pay to protect depositors. The Treasury Department should overhaul bidding practices in the government securities market. However, an increase in regulation would be counterproductive. Proposals to bail out the Soviet economy would waste scarce resources. We reject them.

The Economic Outlook

Most projections and forecasts anticipate a moderate recovery of 2 1/2 percent to 3 percent in the first year of the current expansion. These projections are consistent with a well established fact about economic fluctuations: the strength of the initial phase of the expansion is related to the severity of the preceding recession. Moderate recessions are typically followed by moderate recoveries. The 1991 recession was relatively mild. This is true whether we measure the decline by the fall in output and employment or the rise in unemployment (see chart). For that reason alone, we expect the pace of the recovery to be moderate.

A modest recovery with growth in consumer spending below the growth of output will have lasting benefits. The expansion will be durable. Inflation will continue to fall. The saving rate will increase, thereby providing resources for investment and future productivity gains. We believe that a noninflationary monetary policy will yield that result.

Many comparisons of the recovery now underway to the average postwar expansion neglect to point out that postwar expansions typically produced rising inflation after two or three years.

Rapid expansions and subsequent inflations were the result of a common cause—excessive monetary expansion that at first encouraged a boom in consumer spending but later spilled over into rising prices.

Attempts to accelerate consumer spending now would reproduce this pattern. A more rapid expansion would have less effect on jobs and domestic output than is commonly assumed. Since the recession was moderate, rapid growth in demand would be dissipated in rising inflation. A boom in consumer spending would risk rapid growth of imports, thus increasing trade frictions abroad and calls for protection at home.

Recent Federal Reserve Policy

The Committee believes that monetary policy should aim at moderate, sustainable expansion with declining inflation. The Federal Reserve's current target for M2 is an annual growth rate of 2.5 percent to 6.5 percent. The mid-point of that range, 4.5 percent, is the average rate of M2 growth during the past four years. The policy of slow money growth has produced welcome evidence of a parallel reduction in inflation.

Slow growth of M2, particularly in the third quarter, has brought M2 growth below the lower bound of the Federal Reserve's target range and raised concerns about whether money growth is adequate to sustain the current recovery. Narrower monetary aggregates such as M1 (currency and checkable deposits), the monetary base (bank reserves and currency) or total reserves are currently growing at rates consistent with sustained economic expansion. In our view, the monetary base, adjusted for changes in foreign currency holdings, remains the most reliable indicator of the thrust of current monetary policy.

We believe that reported growth of M2 is misleading; monetary stimulus is understated. This is a judgment based on our evaluation of the available data. It is based on methods that we have used successfully in the past to predict changes in the monetary aggregates. Two main findings support this judgment:

First, continued decline of small time deposits at thrift institutions is a principal reason that reported M2 growth is sluggish. As deposits reach maturity, many holders appear to withdraw them, perhaps out of concern about the safety of thrift institutions or inconvenience associated with failures.

Second, interest rates on small time deposits at banks and savings and loans have fallen relative to the rates on checkable deposits. The difference in rates is now negligible. The public no longer has incentives to sacrifice immediate availability by acquiring time deposits instead of checkable deposits. As small time accounts have declined, depositors have reinvested some of these funds in assets that are not counted as part of M2.

A shift of deposits from time deposits to checkable deposits will leave M2 unchanged but increase M1. The deposit components of M1 are subject to reserve requirements while time and saving deposits are not. If the Federal Reserve had not supplied sufficient additional reserves to the banks, the shift to checkable deposits would have constrained banks and increased interest rates. This was not the case. Reserve growth has increased sharply this year as a result of the Federal Reserve's efforts to lower short-term interest rates.

For many years, we advocated and cited the growth of the monetary base as the most reliable measure of Federal Reserve actions. In spring 1990, we recognized that growth of the base was distorted by large increases in currency to meet demands for a relatively stable and generally acceptable money in Eastern Europe and Latin America. These distortions continue to affect the level of the monetary base but no longer substantially affect its current growth rate. Our calculations show that the annual growth of the monetary base for the year to date has remained in a range of 5 percent to 6 percent after correcting for past distortions.

Growth at that rate is sufficient to maintain moderate recovery with declining inflation. This growth is also consistent with growth in nominal GNP of 5 percent to 6 percent in 1992. The Federal Reserve should maintain growth of the monetary base within this range next year, excluding changes in demand for U.S. currency from the Soviet republics, Eastern Europe, Latin America or elsewhere, which should be accommodated.

Credit Crunch

At our meeting in March, we identified the so-called credit crunch as a red herring. The credit crunch continues to be a red herring today. The drop in business loans in recent months neither indicates a shortage of money nor a refusal by bankers to lend. To the contrary, banks are cutting loans rates in an effort to drum up business. Anyone with the inclination to read history knows that bank loans (especially bank loans to business) usually lag behind the economic cycle. Banks typically buy Treasury securities in the early stages of an expansion.

As activity rebounds, corporate cash flow typically improves from higher profits and from the sale of goods from inventory. Business people use this cash to repay debt—often for many months after the expansion gets under way.

At the same time, sales of corporate bonds soared to a rate of $160 billion in the second quarter, the highest since 1986. Companies used the proceeds of these sales to pay off short-term debt. Net demand for credit from the corporate sector dropped to zero last spring. That reflected both the aftermath of the recession and the beginning of a rebound in corporate cash flow. There is no credit crunch.

Reserve Bank Lending

The House Banking Committee requested the Federal Reserve to make available data on Reserve Bank lending. These data show that since 1985 Federal Reserve lending has permitted hundreds of weak and insolvent banks to remain open. This practice is akin to forbearance. Like other types of forbearance, Federal Reserve lending permits banks to continue their losses. Many of the banks that received these loans subsequently failed.

These Federal Reserve loans are collateralized by relatively safe assets. When banks fail, the Federal Reserve stands first in line for repayment from the deposit insurance fund. Losses are borne by the taxpayers. The Federal Reserve's policy increases the cost that taxpayers pay for bank failures. Uninsured depositors can withdraw their deposits without loss. They have additional time to let deposits reach maturity.

The Federal Reserve should close its extended credit facility.

The Government Securities Market

The integrity of a marketplace is a valuable public good. Recent scandals in the government securities market reflect badly on some participants in these markets. If participants have violated laws, they should be punished.

Some see the need for additional regulation to prevent further abuse. We believe this would be a mistake. Few dealers in this enormous market have participated in such illegal practices. Some dealer firms have been victims, forced to pay a premium to complete obligations to their customers. They should not be forced to comply with unnecessary and burdensome regulations.

We are also convinced that additional regulation is not the answer. What needs to be corrected is the excessive protection of primary dealers by the Federal Reserve Bank of New York and the Treasury. In addition, the Treasury does not gain a benefit for taxpayers from the advantage of being a monopoly issuer of secure obligations—U.S. Treasury bills, notes and bonds.

The Treasury had the opportunity to break the market squeeze last May by announcing a reopening of the two-year note issue. It failed to do so. If it had, those who attempted to corner the market would have experienced large losses. They would have been unlikely to renew their efforts to corner the market at subsequent auctions.

We believe that reform of the bidding process is desirable. The goal of reform should be to minimize the cost to the taxpayers of issuing and rolling over nearly $3 trillion of Treasury securities. Many reform proposals have been made. We recommend that the Treasury experiment with new techniques. These include the Dutch auction that Milton Friedman proposed more than 20 years ago, allowing large purchasers to deal directly with the Treasury, and offering new instruments such as index-linked bonds. The Treasury should insist on open access to primary price information.

Helping the Soviet Republics

The bleak economic outlook predicted for the Soviet republics this winter engenders concerns about famine and disease. Contingency plans for emergency assistance and relief continue an honorable and established American tradition of aiding the victims of disasters. We support contingency planning in the event that relief is needed.

The major current need of the Soviet republics is to establish institutions under which capitalism will flourish. Granting long-term loans and credit is not in the interest of U.S. taxpayers or the Soviet public.

This represents a structural change. Food supplies sent in anticipation of famine or food shortages would have a negative effect on the development of the Soviet agricultural and food processing industries. Prices would be reduced, so less would be harvested. Losses to producers would discourage creation of a market system for agriculture.

Long-term assistance in the form of loans and grants has many advocates at home and abroad. Some favor a new Marshall Plan or a Grand Bargain that would finance economic development. Others favor loans to stabilize the ruble. These proposals are misguided. None of the Soviet republics has made the basic reforms required for growth. The economy seems headed toward hyperinflation arising from financing budget deficits by printing money.

Reforms that would establish private property, accounting systems, commercial codes, financial systems, private pricing and other preconditions for development of market economies are not in place. The Soviet republics cannot develop a viable market economy until these reforms are in place. Once reforms are made, loans should be arranged in the marketplace, not in government bureaus or international organizations.

There is no reason for the U.S. government to borrow so that it can lend to the Soviet republics. Soviet republics own vast amounts of underdeveloped and undeveloped resources. The republics can obtain hard currency in large amounts by selling gold, diamond, platinum, oil, gas, and other materials. They can, and should, attract foreign capital by selling participations in gold, diamond and platinum mines, oil and gas wells, and other assets.

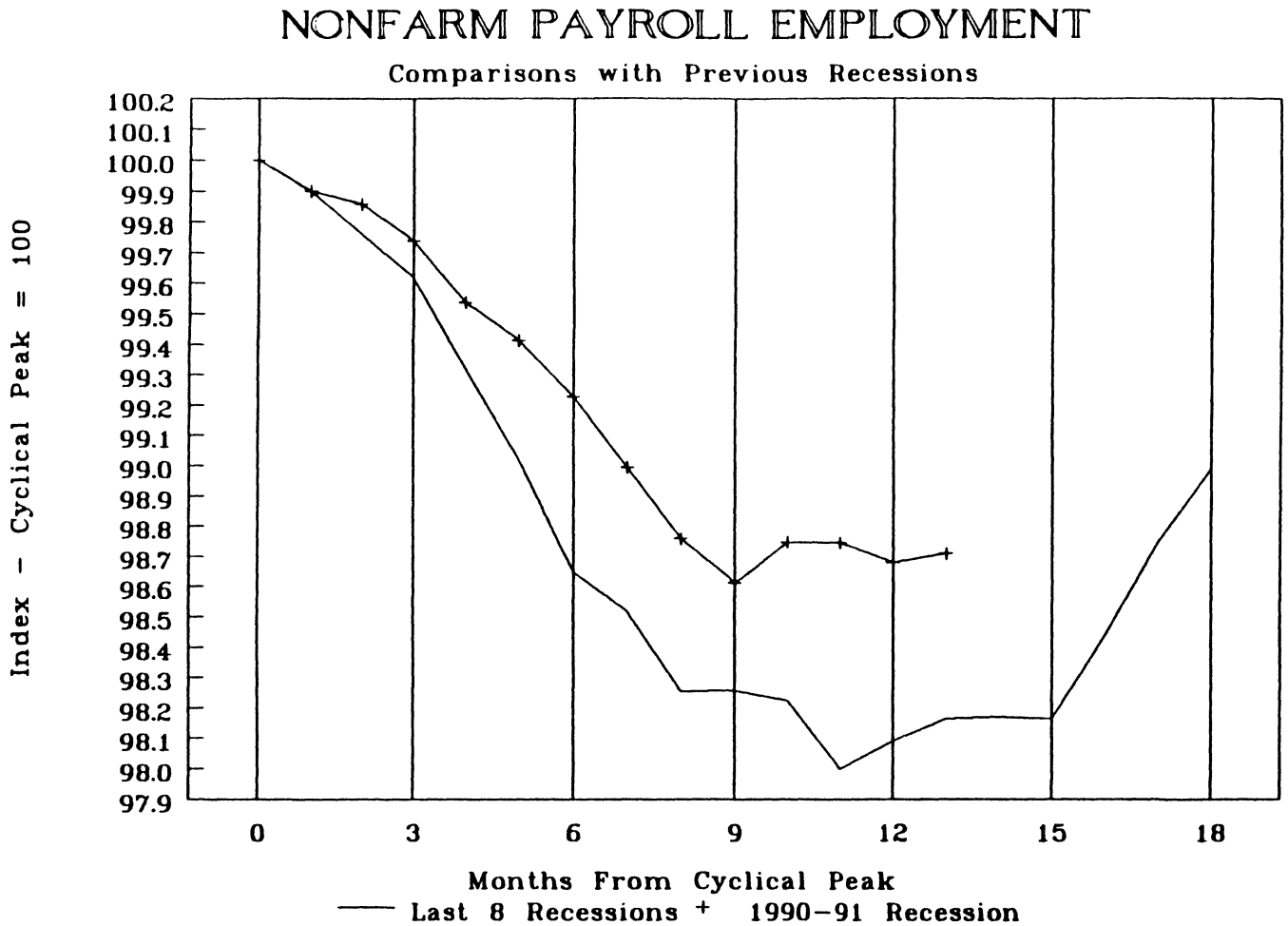
Borrowing should be arranged by private owners of these resources who use the resources as collateral for loans from foreigners. Asset sales to foreigners will bring not only capital but management and technology. Foreign owners or partners would train Soviet managers and employees in western methods. This would assist economic development and avoid wasteful government to government loans.

The Soviet republics are in a much different position than western Europe at the time of the Marshall Plan. The Marshall Plan provided capital to war damaged countries with a history of well-developed market economies. They had trained labor forces, experienced managers, accounting systems, financial systems, commercial codes, legal arrangements and other conditions for renewed development. Once capital and infrastructure were rebuilt, western Europe nations redeveloped quickly. As the countries recovered, they were able to export to open economies.

However, the Soviet republics lack experience in the market system. A Marshall Plan or Grand Design would waste scarce western capital and encourage government supervision of investment and development. Western governments have a vital role to play. They should facilitate trade by lowering barriers to imports from the republics and Eastern Europe. Unfortunately, some governments in Western Europe that have been eager to lend money and give aid have been reluctant to reduce barriers to trade.

France scuttled a modest expansion of food and agricultural exports from Poland, Hungary and Czechoslovakia. Germany has not shown leadership in removing protection. The U.S. Congress has delayed approval of trade treaties calling for extension of most favored nation treatment to the

Soviet republics. Trade will encourage growth and the development of a market economy. We urge western governments to remove barriers and to rely on trade, not aid, to encourage development of the former Communist states.


NONFARM PAYROLL EMPLOYMENT
Comparisons with Previous Recessions
Index - Cyclical Peak = 100
100.2
100.1
100.0
99.9
99.8
99.7
99.6
99.5
99.4
99.3
99.2
99.1
99.0
98.9
98.8
98.7
98.6
98.5
98.4
98.3
98.2
98.1
98.0
97.9
0
3
6
9
12
15
18
Months From Cyclical Peak
Last 8 Recessions
1990-91 Recession

ECONOMIC OUTLOOK

Jerry L. JORDAN
First Interstate Bancorp

Summary

Eight years of economic growth in the 1980s ended in 1990 with the third Middle East oil shock in two decades. A number of factors, including the quick and decisive defeat of Iraq, suggest that the Middle East will not produce another oil shock in the next few years. Monetary policy also has become less destabilizing. These trends suggest that the fluctuations of inflation and interest rates, as well as of output and employment growth, will be much smaller than in recent decades. Less volatility means that business decision makers will have less uncertainty about the future than at any time in several decades. The resulting lower "hurdle rates" for investment decisions will foster better trends of capital formation, productivity, and real income gains.

The narrower corridor in the variability of major national economic indicators will obscure considerable diversity of performance among the major sectors and industries of the economy. Some regions that were strong during the recovery from the 1981-82 recession—such as New England—are expected to trail the national expansion. Other regions that were weak in the previous recovery—mainly the Southwest and the Rocky Mountain states—will outperform the nation as a whole.

Similarly, industries such as defense and commercial construction that were vigorous during most of the 1980s will remain depressed in the expansion of the 1990s. Meanwhile, basic manufacturing "smokestack" industries are expected to be stronger in this expansion, in contrast to the weak performance of the 1980s recovery.

Slower growth of the working-age population in the past decade means that far fewer jobs will need to be created in the 1990s expansion in order to lower the unemployment rate. It also means much slower growth in entry level housing, but a greater need for schools as the baby-boom "echo" builds.

The aging of the "baby-boom generation" will be reflected in faster growth of real per capita personal income and higher saving rates. Several "superior-goods industries" will be the main beneficiaries of these major demographic trends. Employment growth in health-care fields will continue to be rapid, as it will in the leisure group of industries—recreation, travel, tourism, and entertainment.

A broad spectrum of industries also will be affected by growing concerns over the environment. From heavy construction projects to recycling and trash disposal facilities, the challenge will be to find private-sector financing to meet the growing demands for less pollution.

In the early years of recovery for 1981-82 recession, the value of the U.S. dollar rose sharply relative to other major currencies, rendering much of U.S. manufacturing non-competitive on world markets. The resulting trade deficit reflected both strong import growth and weakness in exports.

As the expansion of the 1990s gets under way, the dollar is at a level that leaves U.S. exporting and import-competing industries much more competitive. The strong improvement in manufacturing productivity during the eight-year expansion held unit labor costs of manufacturing flat between 1982 and 1990. This achievement will help sustain export growth in the 1990s, while U.S. manufacturers also will recapture domestic markets from foreign producers.

In the expansion of the 1980s, defense spending consumed a growing share of the nation's resources; in the 1990s that trend is being reversed. Those industries and regions of the country that benefited from a growing defense sector are now challenged by the necessity to diversify into non-defense production.

Construction resources in the 1980s were used to house the baby-boom generation and to build a large inventory of office, hotel and shopping space. Now, the demand will be for infrastructure projects, including transportation, education, water, trash and sewage disposal, pollution abatement, penal institutions, and health-care facilities. The challenge will be to provide adequate funding and private-sector incentives to address these areas, especially in view of the budgetary constraints on the public sector.

U.S. Economy

The 1990s began with a recession, a pattern that has been repeated during each of the past three decades. Compared with other economic downturns since World War II, however, the latest contraction was relatively mild. Real GNP declined a total of 1.1 percent—about half the postwar average drop of 2.3 percent. The economy is now likely to experience a period of more stable growth with lower inflation and lower interest rates.

Expansion of the 1990s—Dominant Forces

Four major forces will influence the economy's direction during the next two years: monetary policy, fiscal policy, demographics, and oil prices.

Monetary Policy—Keys to the Future

To accommodate the recovery following the Gulf war, the Federal Reserve set its 1991 growth target for M2 (currency, checking & savings accounts, and small certificates of deposit) at 2.5-6.5 percent. M2 growth was quite rapid early in 1991, and the Fed was apparently aiming at the upper half of its target range. Money growth stalled around the middle of the year, however, and by August this measure of the money supply was barely above its lower target bound.

Over the long run, nominal GNP tends to grow at about the same pace as M2. Over short periods of time, GNP gains can outstrip M2 increases. Such situations are generally characterized by rising interest rates, however, in contrast to the falling rates of 1991. The Fed might take some solace in the sizable growth of M1 (currency and checkable deposits), which by August had recorded an annual growth of 7.0 percent measured from 1990's fourth quarter. The steepness of the yield curve also appeared to be encouraging investors to move out of bank CDs into stock and bond funds not included in M2.

The weakness of M2 growth, nevertheless, represented the greatest risk of a "double-dip" recession. The poor performance of employment and income in the middle of 1991 indicated that even if M2 were overstating the tightness of monetary policy, more rapid money growth would be necessary to prevent the incipient recovery from being aborted.

Our forecast is based on the assumption that money growth revives by the end of 1991, with M2 growth of 5.5 percent occurring in 1992. As the Fed pursues its long-term goals of quashing inflation, M2 growth is likely to moderate to about 4.7 percent in 1993.

Fiscal Policy—Red Ink Persists

Little near-term change is anticipated in U.S. fiscal policy, despite demands to address domestic priorities, requests to aid the Soviet Union, lingering effects of the recession, and a presidential election in 1992.

The budget agreement reached in 1990 (the Omnibus Budget Reconciliation Act or OBRA) established individual spending caps for three categories of "discretionary spending"—defense,

international, and domestic—for fiscal years 1991, 1992, and 1993. "Mandatory" (required by law) benefit programs were set on a "pay-as-you-go basis." One program's outlays could be raied only if another's were cut or if taxes were increased.

The jury is still out as to the success of OBRA in restraining the deficit. Certain loopholes appear to have allowed spending limits to be overshot, but the new budget process has still imposed some discipline on congressional actions.

The deficit for fiscal 1991 (which ended September 30) was an estimated $282 billion, compared with 1990's spending-revenue gap of $220 billion. We expect the 1992 deficit to balloon to about $375 billion before it is reduced to about $294 billion in 1993.

Three major factors are causing the near-term escalation in the deficit. Delays in dealing with the S&L debacle have pushed deposit insurance expenditures from 1991 into 1992. Allied contributions for project Desert Storm held down 1991's deficit, while some replacement-part spending for equipment damaged or destroyed during the Gulf war will add to 1992's outlays. The recession also dampened tax revenue while raising required spending for such programs as unemployment compensation.

The Federal Reserve is unlikely to accommodate these large deficits through rapid monetary growth because of the concern about inflation. As private credit demands begin to pick up in late 1992 or 1993, greater potential will exist for "crowding" out of consumer or business borrowing.

Demographics—A Generation of "Grumpies"

The "baby boomers" born between 1946 and 1964 are gradually changing in the eyes of marketers from "yuppies" (young upwardly-mobile professionals) to "grumpies" (grown-up mature professionals). Census numbers show that this 26-44 age group accounted for nearly a third of the population in 1990.

Trends of the baby-boom generation have heavily influenced economic events during the past three to four decades. The strong gains during the 1980s in consumer spending and housing investment were in significant part driven by this population segment. This group is now likely to save at higher rates for several reasons: provision for their own retirement, smaller tax benefits from interest expense, and lower inflation.

Demographic trends in the near term should be relatively favorable for the economy by fostering greater saving and investment. The next major demographic challenge will occur in the next century when the first of the baby boom generation begins to retire.

Other demographic features will have important effects on the near-term outlook. The number of new young adults has dropped dramatically because of the "baby bust" of twenty years ago. At the same time, the annual number of new births has recently jumped back to the levels of the mid 1960s. Immigration from Latin America and Asia will also continue to have important effects on the U.S. economy.

Oil Prices—Moderate

Oil prices, in terms of the West Texas Intermediate benchmark, are likely to average slightly over $21 a barrel in 1991. We assume that prices will generally average in the $20-$21 a barrel range during 1992 and 1993. Winter heating demand could put upward pressure on prices late in 1991, and stronger industrial-country growth could lead to a firming in worldwide demand in 1992. At the same time, however, the gradual restoration of Kuwaiti and Iraqi supplies will limit any upward pressure on prices, as will continued sizable production by Saudi Arabia.

Economic Recovery

The U.S. recession, which began in 1990's third quarter, appears to have ended in the second quarter of 1991. We expect real GNP growth to average about 2.6 percent in 1991's second half after the 2.8 percent annualized decline in the first quarter and a virtually flat performance in the second quarter.

Our forecast is for substantial economic improvement in 1992, with a 3.4 percent real GNP gain. Gradual tightening by the Federal Reserve in 1993 because of inflation concerns is likely to temper that year's growth to 2.8 percent.

Just as the recession was comparatively mild, the recovery will be moderate by historical standards. The average first-year rise in real GNP in the recoveries since World War II was 6.7 percent. We expect growth in the first year of the currency recovery to be 3.1 percent.

Opportunities and Risks

Consumer spending will grow moderately in the new expansion. Both demographic forces and the accumulation of debt by households during the 1980s will restrain spending. Income gains should improve, however, with a resumption of employment growth and increases in wages and salaries that exceed the rise in consumer prices. The advances in stock and bond prices which have taken place, together with at least a stabilization of real estate prices, have also bolstered the net worth of many individuals.

Home sales will continue to improve with stronger consumer confidence and lower interest rates. After plunging to only 1.04 million units in 1991, we expect housing starts to rise to 1.28 million units in 1992 and 1.38 million in 1993. The single-family market will return to healthier levels relatively quickly. National apartment vacancy rates remain high and are preventing a recovery in the multi-family sector. Lower vacancy rates, rising rents, and better returns may develop by the end of 1992, leading to more multi-family housing construction in 1993.

Business firms will continue to rebuild inventories over the next several months, which should give a sizable boost to economic activity. Companies will also raise capital spending plans as efforts continue to bolster productivity. Outlays for business equipment are likely to rise at a real rate of about 6 percent over the course of 1992 and 5 percent during 1993.

Direct government spending will be restrained by fiscal problems at local, state, and federal levels. Defense cuts are likely to be accelerated, while contracts based on defense against the Soviets will be shelved or scaled back. Construction of roads, other transportation facilities, schools, and prisons will remain strong because of funding by specially-earmarked tax revenues or by bond financing.

Nonresidential construction will remain the weakest economic sector of the national economy through 1993 because of excess capacity in hotels, office buildings, and shopping centers. Most of the commercial construction work will involve completion of projects previously started or renovation of older structures.

Brighter Outlook—Jobs and Profit

Nearly 22 million jobs were created in the expansion that ended in July 1990. Manufacturing employment had started to shrink early in 1989, and weakness eventually spread to nearly all other major economic sectors. Only health care appears to have escaped the impact of layoffs.

We expect modest job growth in the final months of 1991, with moderate gains continuing in 1992 and 1993. Employment growth will trail advances in output as industries throughout the economy, especially in the broad services sector, strive to enhance productivity. Our forecast indicates a rise of 2.0 million jobs on nonfarm payrolls in both 1992 and 1993 (measured fourth quarter to fourth quarter). The year 1991 will show a loss of about 800,000 jobs.

The unemployment rate reached a peak of 7.0 percent in mid 1991 and is likely to remain relatively high for the first few months of the recovery until hiring begins to pick up. We expect the jobless rate to ease to 6.2 percent by the end of 1992 and 5.5 percent by December 1993. A significant reduction in the jobless rate will be achievable even with moderate job gains because

of relatively sluggish growth of the labor force. The working-age population (16 and over) is currently rising by less than 1 percent per year and, after climbing substantially during the past two decades, the labor-force participation rate is likely to be relatively stable.

Corporate profits have borne much of the brunt of the latest recession. We focus on "economic" after-tax profits, which value depreciation on a replacement-cost basis and exclude inventory gains. This profit measure dropped sharply during the past two years, before edging up an estimated 2 percent in 1991.

Corporate profits should rebound by about 8 percent in 1992, followed by another 7 percent climb in 1993. The ability of most firms to raise prices aggressively will be limited during the next two years by a lower inflation environment and a generally moderate growth of sales. A lower level of interest rates compared with that of recent years, however, will help restrain financing costs. Many firms have also lowered their break-even points by cutting costs and improving efficiency. Increases in sales and/or output volumes should, therefore, feed through quickly to the bottom line.

Inflation—Winning the Battle

Inflation jumped in 1990, as higher oil prices drove consumer prices up 6.2 percent from the prior year's fourth quarter level. The reversal of last year's run-up in oil prices will help cut inflation in half in 1991 to only about 3.1 percent.

Prospects for inflation appear favorable for the early 1990s. Monetary growth, the dominant force behind inflation, has been slow during the past four years. We estimate that the annual increase in M2 over the five years ending in 1991 will amount to only about 4.3 percent. Assuming that the economy's potential real growth rate is 2.5 percent, this would imply that inflation could trend as low as 2 percent.

Oil and food supply shocks can cause large swings in relative prices, which can affect the general inflation indices. World oil output, however, is likely to match increases in demand. Agricultural supplies are sizable, although prospects will be affected by developments in the Soviet Union, weather, and U.S. farm policies.

On balance, our forecast is for consumer prices to rise 3.5 percent in 1992 and 3.3 percent in 1993. Although prices, along with employment, were affected most significantly in the goods-producing sector during this past recession, more price restraint has recently been evident in service industries. That trend is likely to continue during the next two years.

Wage and salary increases have been temperate for some time. Continued increases in the cost of health care and non-wage benefits are likely to boost the average cost of total compensation by 4.7 percent during each of the next two years, following 1991's estimated 4.5 percent rise.

Interest Rates-Milder Cycle

Changes in interest rates during the next two years are likely to be confined to a narrower range than during much of the 1980s. This will reflect a generally moderate pace of economic growth and lower inflation.

The Federal Reserve influences the course of short-term yields through its control of the overnight federal funds rate. Five major forces will guide the Fed in setting its interest-rate targets during coming months: 1.) the current and expected trend of economic growth; 2.) the pace of monetary expansion; 3.) the rate of inflation; 4.) the financial market's confidence in Fed policy, as indicated by bond prices; and 5.) the dollar's behavior in foreign-exchange markets.

Weak economic and money growth, low inflation, and rising bond prices would encourage the Fed to lower interest rates and vice versa. The dollar's foreign-exchange rate acts more as an ancillary constraint: a sharp plunge in the dollar could prevent easing and a steep climb could delay tightening.

The Federal funds rate is forecast to bottom out at about 5 percent at the end of 1991 as the Federal Reserve acts to accommodate the economic expansion. For comparison, the fed funds rate reached a peak of nearly 10 percent in early 1989. An acceleration in economic activity by the first part of 1992 is likely to prompt a gradual process of tightening, taking the funds rate to a peak of about 7.25 percent by the middle of 1993. Such an increase should be sufficient to restrain the growth of the economy, causing the funds rate to ease to 7.0 percent by the end of 1993.

Most short-term rates will parallel movements in the funds rate, with a rise of 125 basis points (1.25 percentage points) over the course of 1992 and 75 basis points between the beginning and end of 1993. We expect the bank prime rate to average slightly over 8 percent in 1992 and 9 percent in 1993, compared with an average 8.5 percent in 1991, and well below 1990's 10 percent average.

Long-term interest rates, as represented by the yield on Treasury securities, will reflect three fundamental factors: 1.) the real return, based on the productivity of capital; 2.) the anticipated rate of inflation over the life of the asset; and 3.) a risk factor based on uncertainty about the prospects for inflation.

The real rate of return currently is around 4 percent. Its one-half percentage point increase during the past two years may reflect the impact of higher investment demands from Eastern Europe, Asia, and Latin America.

If investors can be convinced that the long-term inflation rate will hold at 3.5 percent or less, the likelihood is that the 30-year Treasury bond yield will remain near 8 percent. Our forecast is for the long bond to generally yield less than 8 percent in the latter part of 1991 and in the early part of next year. Signs of more rapid economic growth and rising short-term rates are expected to push the 30-year bond yield up gradually during the course of 1992, but to a peak of only 8.25 percent in the middle of 1993. Following our general outlook for long-term yields, we expect 30-year mortgage rates to range between 9.0 percent and 9.5 percent during 1992-93, a welcome respite from the double-digit mortgage rates that characterized nearly all of the 1980s.

	Quarterly 1991 I	1991 II	1991 III	1991 IV	1992 I	1992 II	1992 III	1992 IV	1993 I	1993 II	1993 III	1993 IV	4th Quarter 1991	% Change '91/'90	4th Quarter 1992	% Change '92/'91	4th Quarter 1993	% Change '93/'92
	Actual				Forecast					Forecast			Estimate		Forecast			
GROSS NATIONAL PRODUCT (Billions of $, annual rate)	5557.7	5615.8	5680.7	5754.5	5848.5	5948.3	6045.5	6141.5	6234.5	6327.5	6412.7	6494.5	5754.5	4.1	6141.5	6.7	6494.5	5.7
% Change, annual rate	2.2	4.2	4.7	5.3	6.7	7.0	6.7	6.5	6.2	6.1	5.5	5.2						
REAL GNP (Billions of 1982 $, a.r.)	4124.1	4123.0	4149.2	4176.2	4211.2	4249.4	4284.0	4317.8	4350.5	4382.8	4411.9	4439.0	4176.2	0.5	4317.8	3.4	4439.0	2.8
% Change, annual rate	-2.8	-0.1	2.6	2.6	3.4	3.7	3.3	3.2	3.1	3.0	2.7	2.5						
REAL FINAL DOMESTIC SALES* (Billions of 1982 $, a.r.)	4143.6	4158.5	4169.7	4181.7	4211.1	4245.6	4276.0	4305.3	4334.3	4362.8	4388.7	4412.3	4181.7	-0.2	4305.3	3.0	4412.3	2.5
% Change, annual rate	-4.5	1.4	1.1	1.2	2.8	3.3	2.9	2.8	2.7	2.7	2.4	2.2						
REAL CHANGE IN INVENTORIES (Billions of 1982 $, a.r.)	-25.0	-27.7	-12.5	4.0	10.0	14.0	17.0	20.0	22.0	24.0	25.0	26.0	4.0	N/A	20.0	N/A	26.0	N/A
GNP DEFLATOR (1982=100)	134.8	136.2	136.9	137.8	138.9	140.0	141.1	142.2	143.3	144.4	145.4	146.3	137.8	3.5	142.2	3.2	146.3	2.9
% Change, annual rate	5.2	4.2	2.1	2.6	3.2	3.2	3.3	3.2	3.1	3.0	2.8	2.7						
CONSUMER PRICE INDEX (1982-84=100)	135.0	135.7	136.7	137.9	139.1	140.3	141.6	142.8	144.0	145.1	146.3	147.4	137.9	3.1	142.8	3.5	147.4	3.3
% Change, annual rate	3.6	2.1	3.0	3.6	3.6	3.5	3.6	3.4	3.4	3.3	3.2	3.2						
AUTO SALES (Millions, annual rate)	8.2	8.5	8.9	9.3	9.4	9.6	9.7	9.8	10.1	10.0	9.7	9.6	8.7**	-8.2	9.6**	10.4	9.8**	2.1
HOUSING STARTS (Millions, annual rate)	0.92	1.00	1.11	1.16	1.19	1.26	1.32	1.35	1.37	1.38	1.37	1.39	1.04**	-12.5	1.28**	22.7	1.38**	7.5
INDUSTRIAL PRODUCTION (1987=100)	105.8	106.3	107.9	108.7	109.8	111.0	112.2	113.3	114.4	115.4	116.3	117.2	108.7	0.2	113.3	4.2	117.2	3.5
% Change, annual rate	-9.6	1.9	6.2	3.0	4.0	4.5	4.3	4.0	3.9	3.7	3.3	3.1						
NONFARM EMPLOYMENT (Millions)	109.2	108.8	108.8	109.0	109.3	109.8	110.4	111.0	111.5	112.0	112.5	112.9	109.0	-0.8	111.0	1.9	112.9	1.7
UNEMPLOYMENT RATE, ALL WORKERS (Percent)	6.5	6.8	6.8	6.9	6.8	6.7	6.5	6.3	6.0	5.8	5.7	5.6	6.9	N/A	6.3	N/A	5.6	N/A
ECONOMIC PROFITS AFTER TAXES (Billions of $, annual rate)	171.1	168.1	169.0	171.0	176.0	183.0	186.0	189.0	193.0	196.0	198.0	200.0	169.8**	2.2	183.5**	8.1	196.8**	7.2
% Change over year ago	2.5	-3.1	4.6	5.3	2.9	8.9	10.1	10.5	9.7	7.1	6.5	5.8						
MONEY SUPPLY M2 (Billions of $, a.r.)	3354.3	3394.5	3396.6	3436.4	3486.8	3533.8	3578.7	3625.4	3670.7	3715.8	3756.9	3795.7	3436.4	3.3	3625.4	5.5	3795.7	4.7
% Change, annual rate	3.5	4.9	0.2	4.8	6.0	5.5	5.3	5.2	5.1	5.0	4.5	4.2						

NOTE: All quarterly series are seasonally adjusted; % change, annual rate calculated from prior quarter; calculations based on unrounded data; a.r. = annual rate. *Excluding Commodity Credit Corp. purchases.

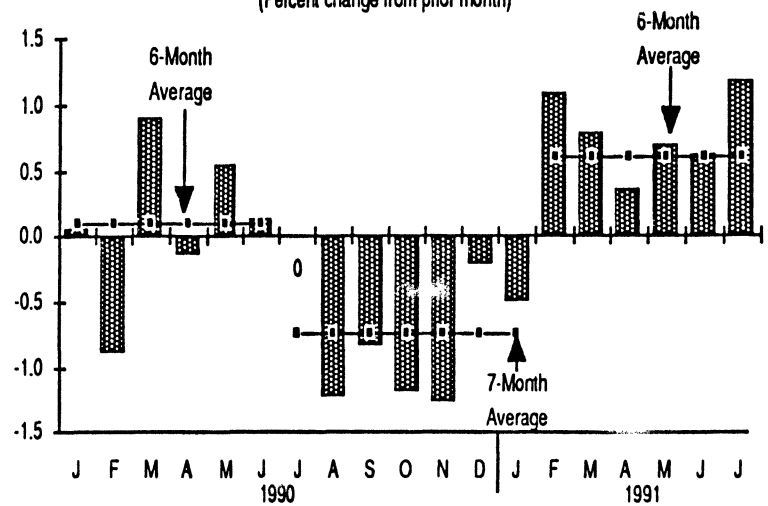
**Annual total; N/A = Not applicable.

REAL GNP RECOVERS

(Quarterly percent change, annual rate)

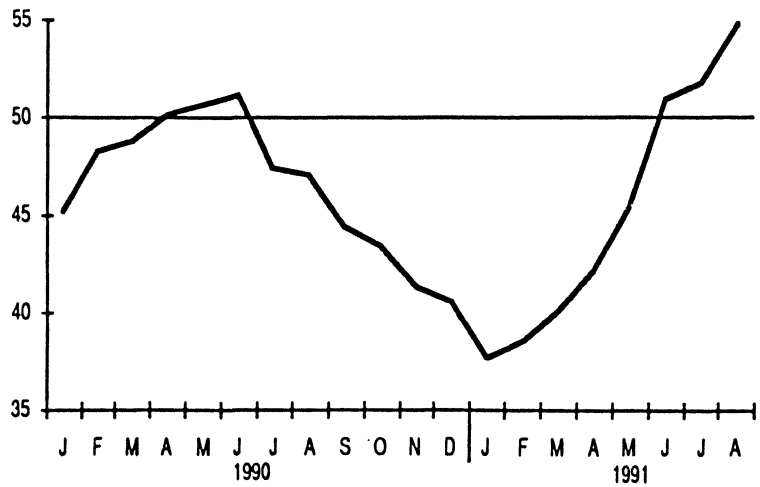
INDEX OF LEADING ECONOMIC INDICATORS

(Percent change from prior month)



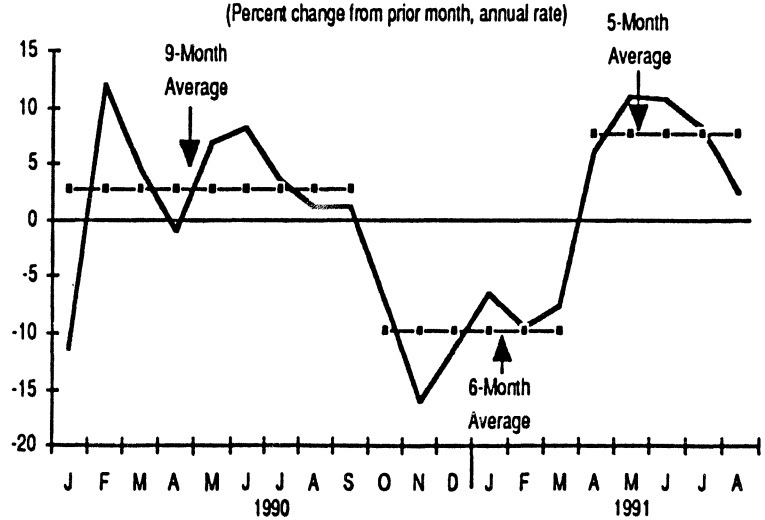
PURCHASING MANAGERS' INDEX

(Percent)



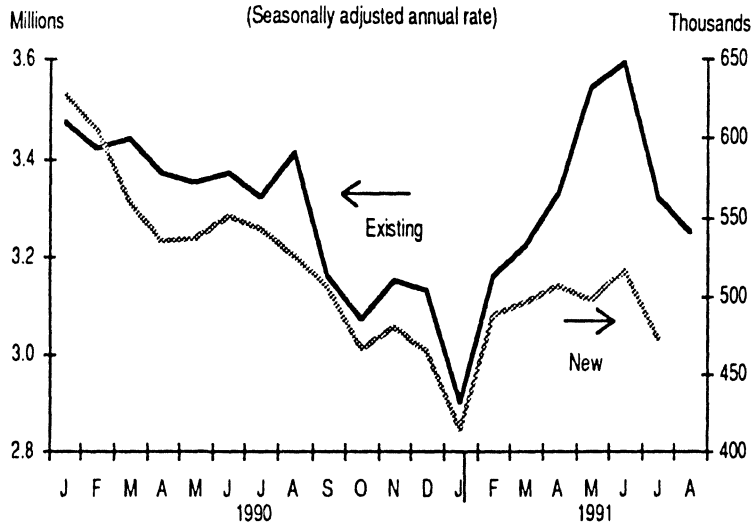
INDUSTRIAL PRODUCTION

(Percent change from prior month, annual rate)



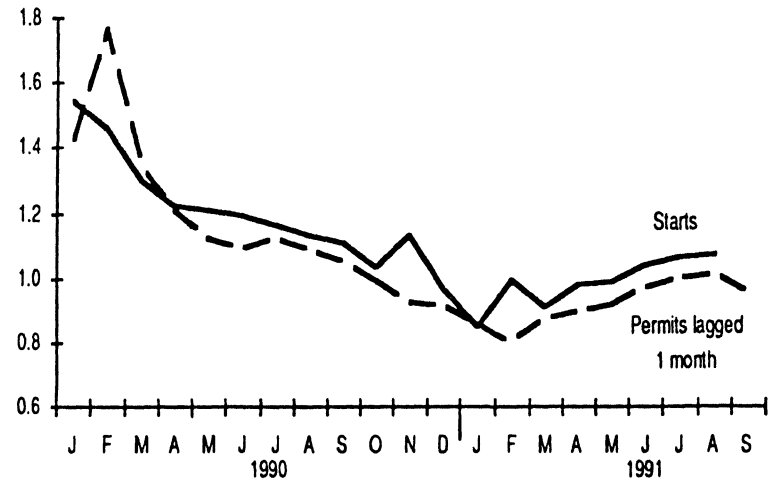
NEW AND EXISTING SINGLE-FAMILY HOME SALES

(Seasonally adjusted annual rate)



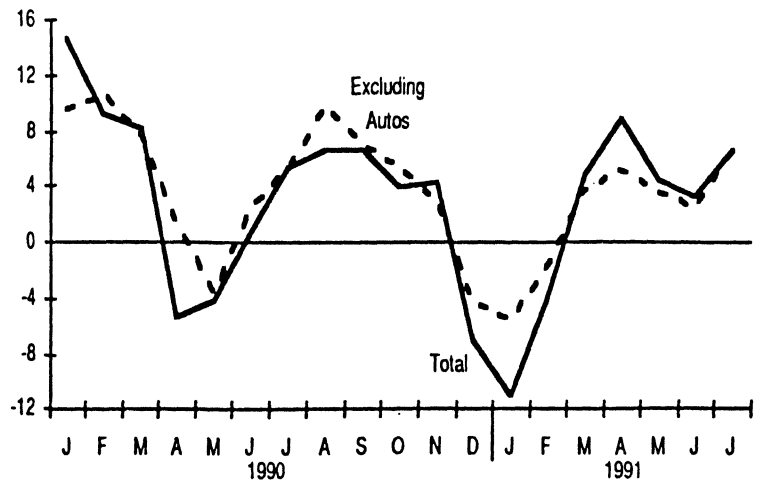
HOUSING STARTS & PERMITS

(Millions of units, annual rate)



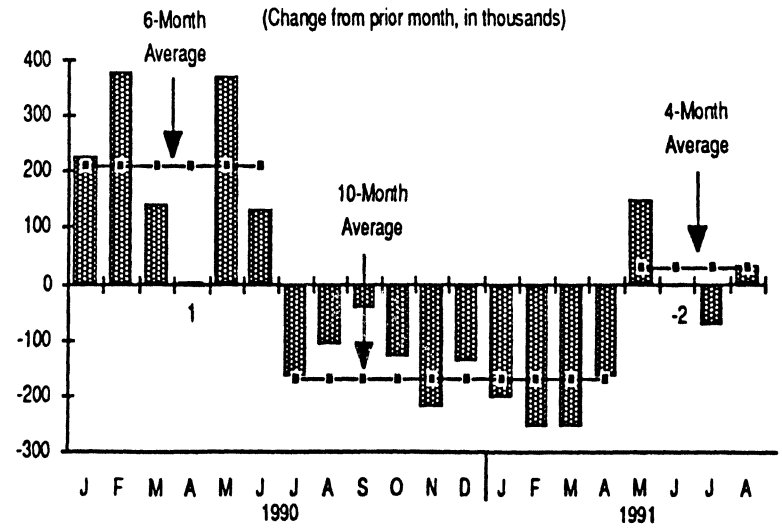
RETAIL SALES

(Percent change in 3-month moving average, annual rate)



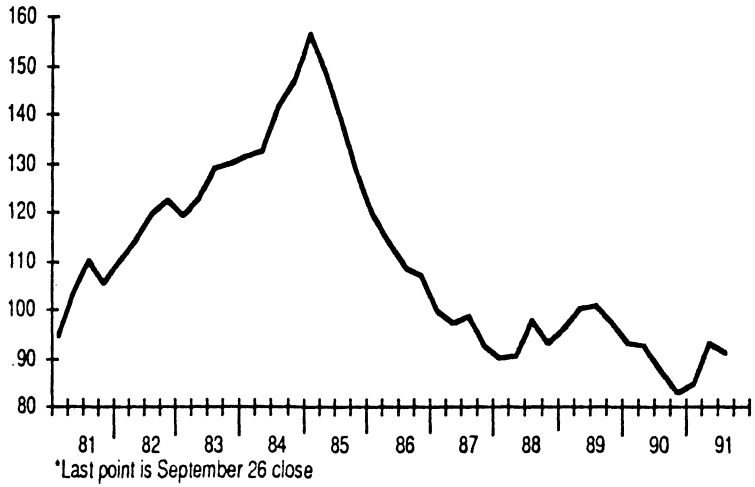
NONFARM EMPLOYMENT

(Change from prior month, in thousands)



U.S. DOLLAR--TRADE WEIGHTED INDEX

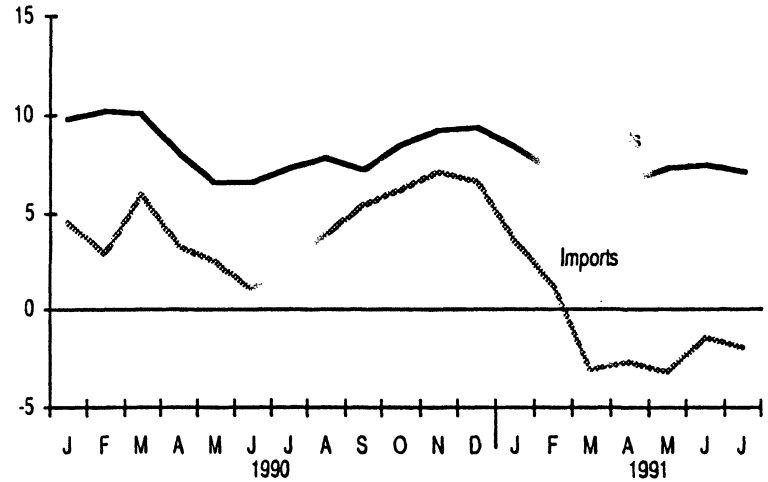
(Quarterly*, Index March 1973=100)



*Last point is September 26 close

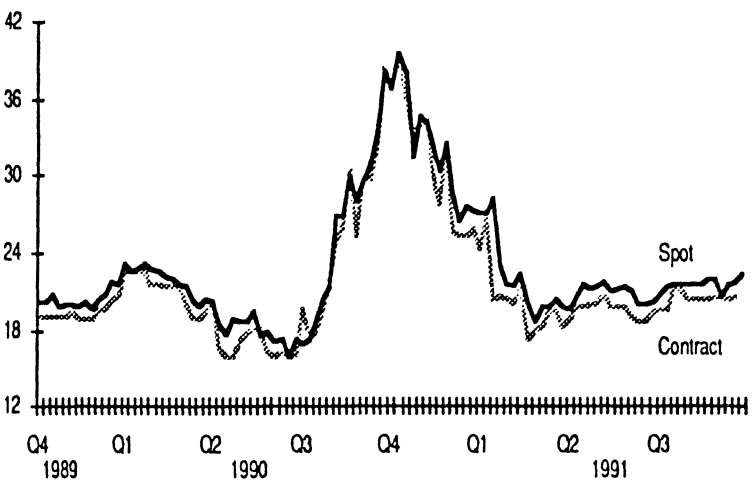
MERCHANDISE EXPORTS AND IMPORTS

(Percent change in 3-month moving average from p



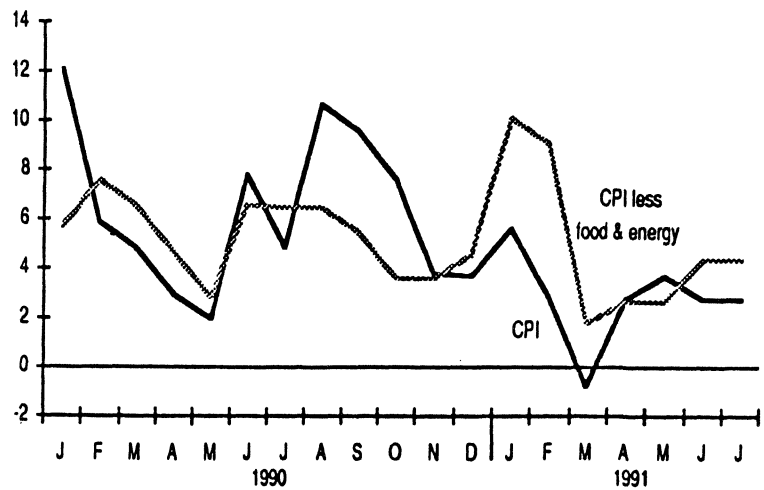
CRUDE OIL PRICES

(West Texas Intermediate, dollars per barrel)



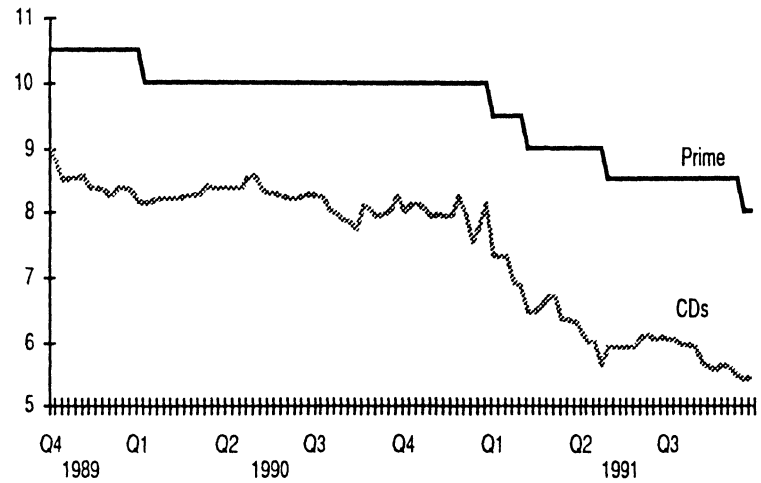
CONSUMER PRICE INDEX

(Monthly change, annual rate)



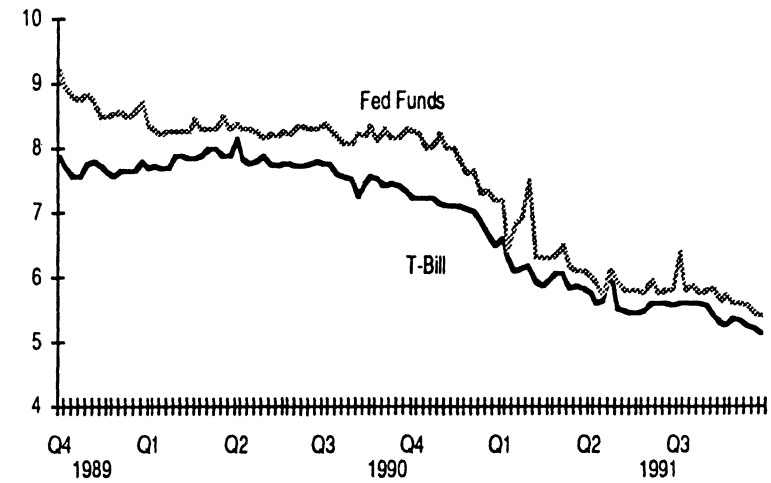
PRIME RATE & 3-MONTH CDs

(Weekly averages, percent)



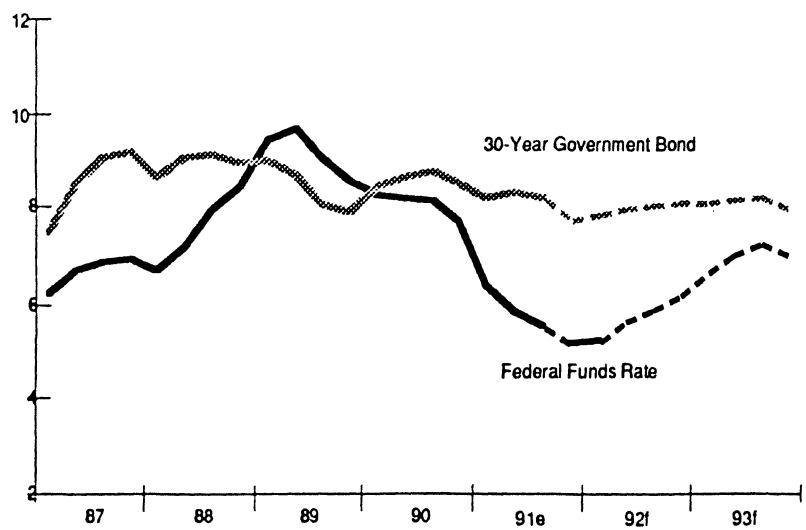
FED FUNDS & 3-MONTH T-BILL QUOTED RATES

(Weekly averages, percent)



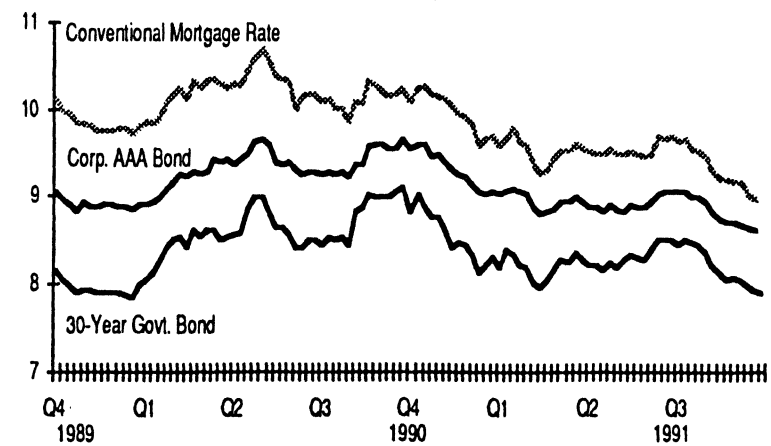
INTEREST RATES--MODERATE CYCLICAL RISE

(Percent, quarterly average)



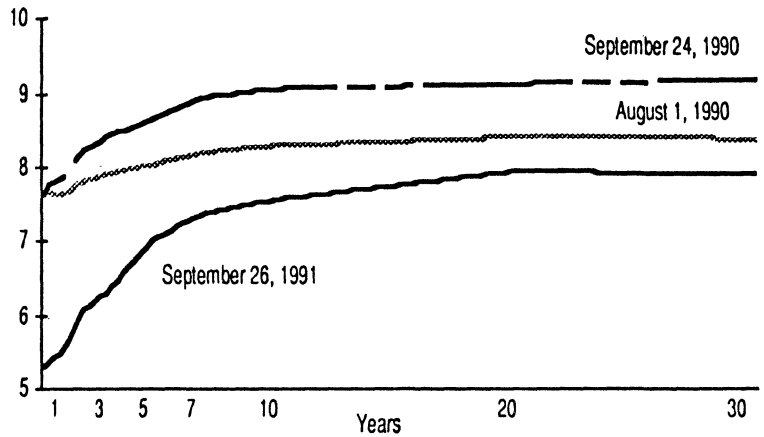
MOODY'S CORPORATE AAA, MORTGAGE & 30-YEAR GOVERNMENT BONDS

(Weekly averages, percent)



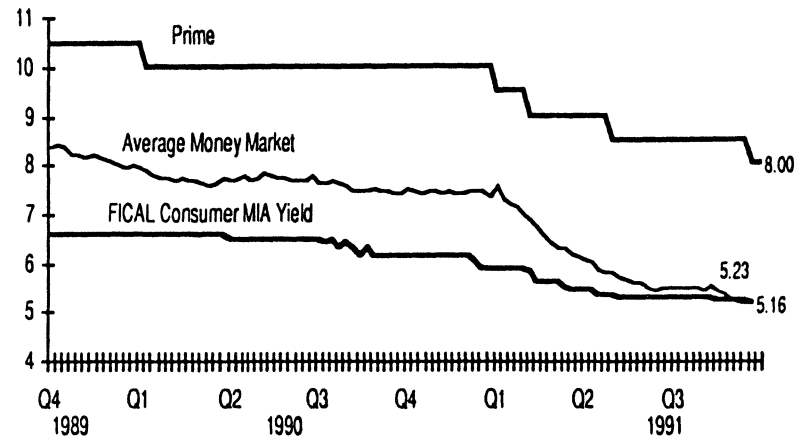
YIELD CURVE, 3 MONTHS TO 30 YEARS

(Percent)



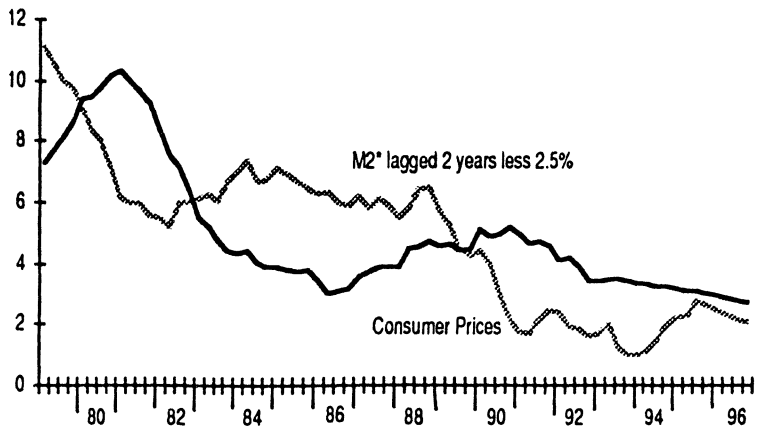
AVERAGE MMF YIELD, FICAL CONSUMER MIA YIELD & PRIME RATE

(Weekly averages, percent)



INFLATION AND MONETARY GROWTH

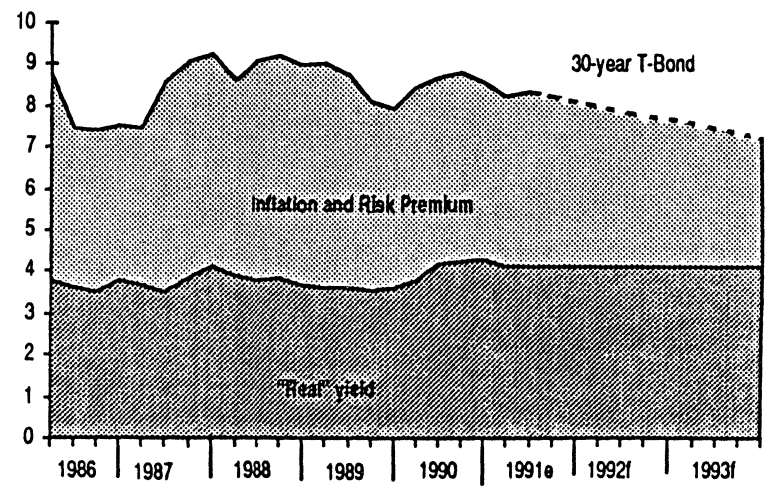
(Percent change, 8-qtr moving average)



*Adjusted for MMDAs in '83 and currency in '89-'91

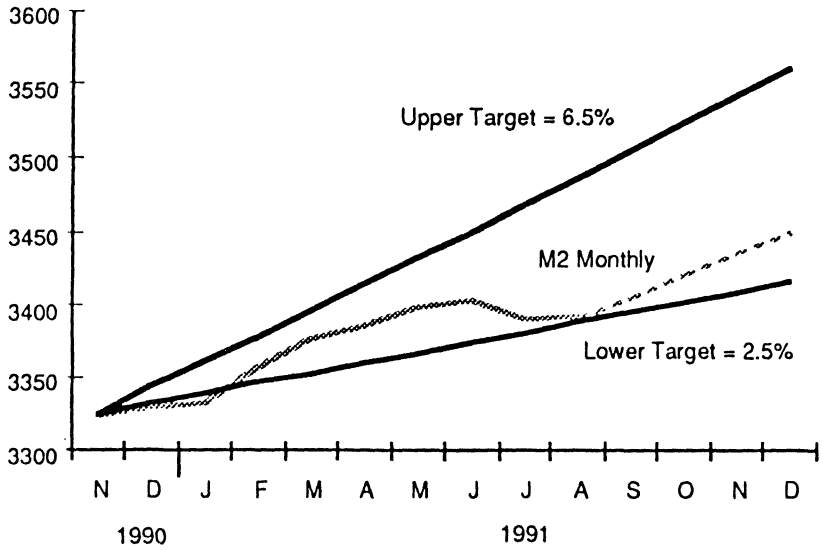
REAL YIELDS AND 30-YEAR U.S. TREASURY BONDS

(Percent, quarterly average)



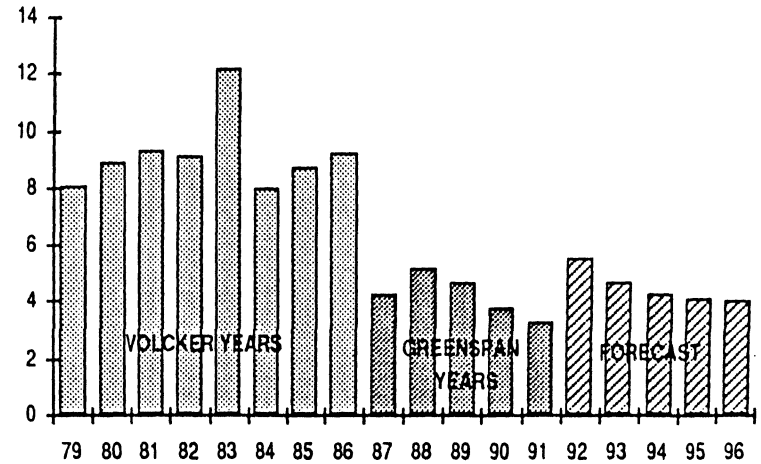
M2--NEAR LOWER 1991 TARGET

(Billions of dollars, monthly average)



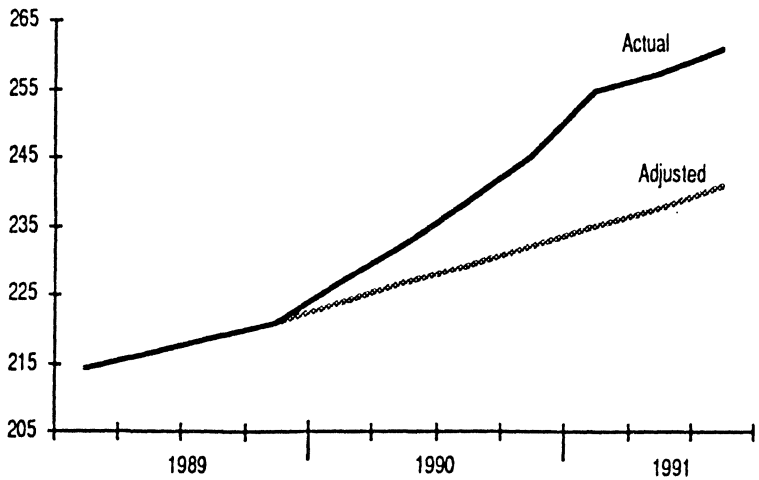
M2 GROWTH

(Percent change, 4th qtr to 4th qtr)



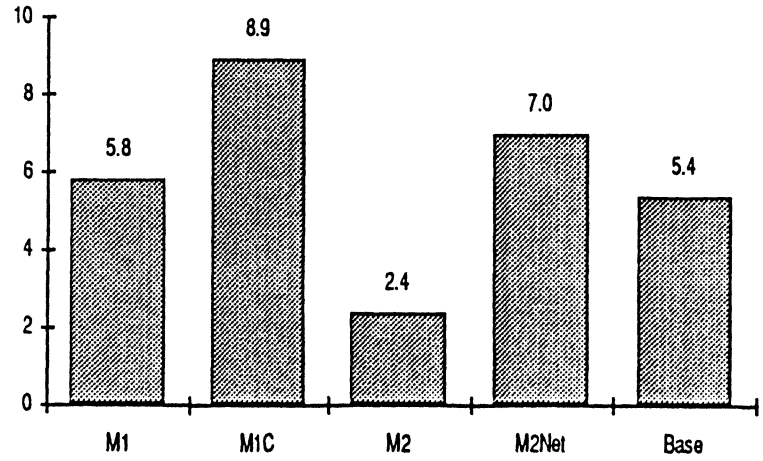
CURRENCY ADJUSTED FOR FOREIGN HOLDINGS

($ Billions, seasonally adjusted quarterly averages)



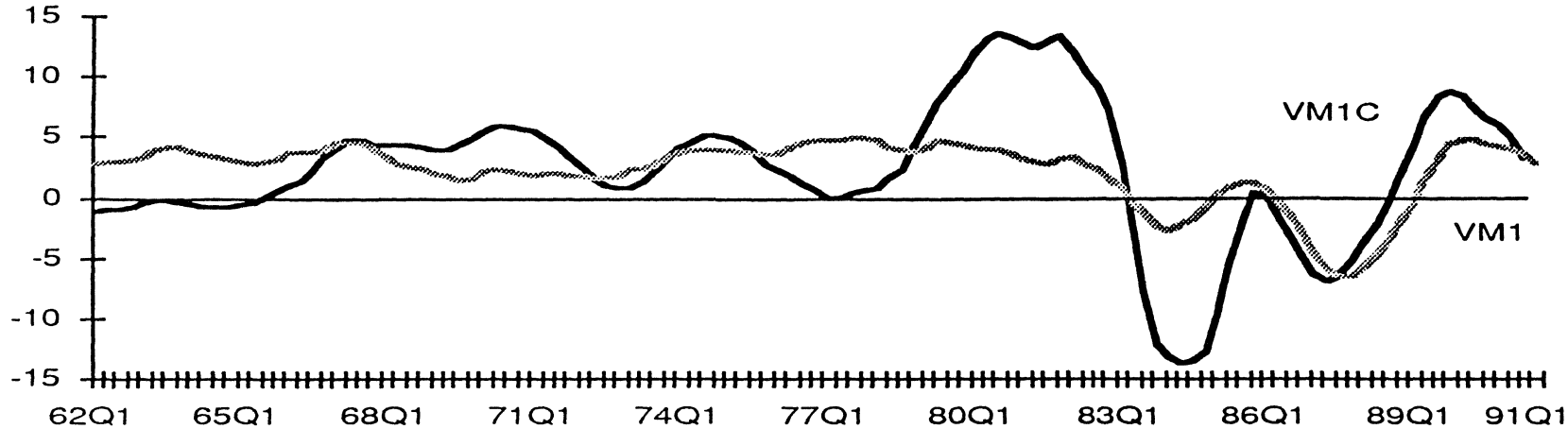
MONETARY GROWTH IN 1991

(90Q4 to 91Q3e, annual rate)



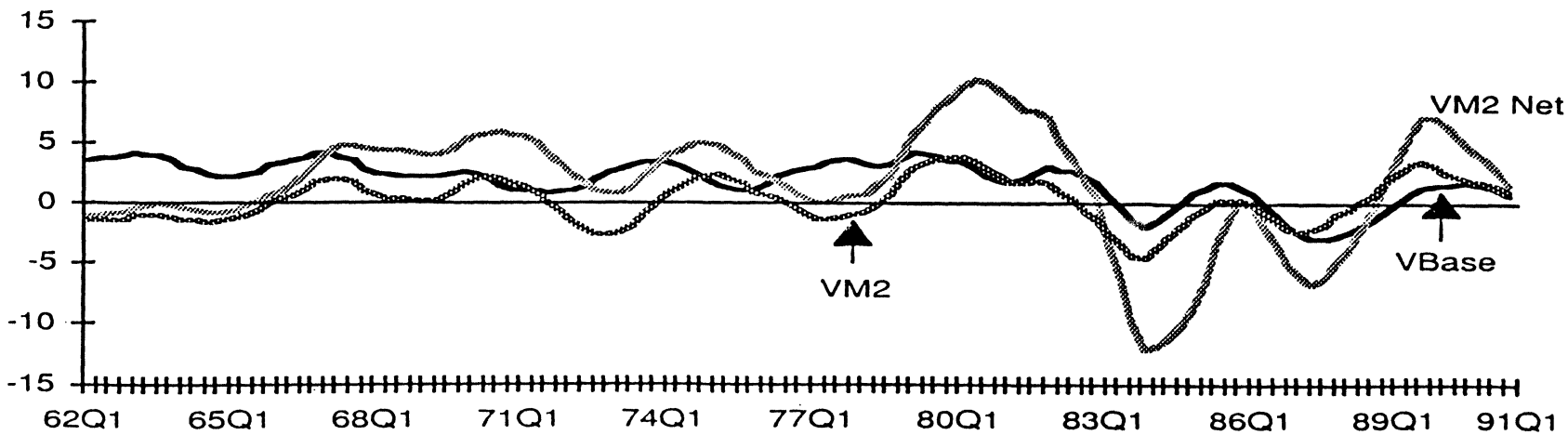
M1 VELOCITY GROWTH

(Annual percent change based on 8-quarter moving averages)



M2 & BASE VELOCITY GROWTH

(Annual percent change based on 8-quarter moving averages)



GROWTH RATES OF MONETARY AGGREGATES AND GNP

(Percent Change From Prior Quarter, Annual Rate)*

	M1	M1C	M2	M2Net	Base	GNP
90.01	3.9	5.6	6.0	8.3	5.0	6.7
90.02	2.9	4.2	3.6	4.5	4.1	5.1
90.03	1.8	2.2	2.6	3.0	3.9	5.3
90.04	1.6	0.6	1.6	1.7	5.1	0.9
91.01	2.9	3.8	2.7	4.4	6.3	2.2
91.02	7.6	13.3	4.9	11.9	3.9	4.0
91.03e	7.0	9.8	-0.3	4.9	5.9	N/A

AVERAGE ANNUAL RATE OF CHANGE IN VELOCITY

60.01 to 90.04	2.1	1.9	0.0	1.2	1.6	
83.01 to 90.04	0.0	-2.2	0.1	-1.9	-0.2	
87.01 to 90.04	3.4	5.3	1.5	3.5	0.8	
88.01 to 90.04	3.4	4.7	0.9	2.2	0.8	

PROJECTED GROWTH OF GNP, FIRST HALF OF 1991 BASED ON VELOCITY GROWTH TREND 83.01 TO 90.04

MONEY GROWTH	5.2	8.4	3.8	8.1	5.1	
VELOCITY	0.0	-2.2	0.1	-1.9	-0.2	ACTUAL
GNP FORECAST	5.2	6.2	3.9	6.2	4.9	3.1

FORECAST BASED ON ECONOMETRIC MODEL

M2	BASE	ACTUAL
0.6	4.1	3.1

MIC = M1 + SAVINGS + MMDAs
M2 Net = M2-TDs

*All growth rates adjusted for changes in foreign currency holdings for five quarters, 90 Q 1 through 91 Q1

THE ECONOMY IN 1992

H. Erich HEINEMANN
Ladenburg, Thalmann & Company, Inc.

The American economy is moving slowly but surely out of recession. There is little risk of a "double-dip" slump that would drive business activity to a new low. To the contrary, a surge in business investment should push real gross domestic product (measured in 1987 dollars) up more than 4 percent next year. The dynamics of recovery are in place. Once begun, this process rarely reverses.

The rate of inflation is down. In our opinion, prices will continue to decelerate in the months ahead. Our Baseline Forecast (see tables) indicates that the GNP deflator will rise only 2.5 percent in 1992. If Fed policy remains on a disinflationary course, the rate of increase in prices should drop still lower in 1993.

We expect corporate profits to be a catalyst for growth. Earnings from current operations were up last spring, even though the economy was still in the doldrums. Productivity is going up. Total business sales advanced at an annual rate of more than 8 percent from April to July. The change in unit labor costs in manufacturing is dropping month by month.

The combination of increased business volume and falling unit labor costs suggests that profit margins will widen at an accelerating rate. Tight cost control in U.S. industry is bearing fruit. We believe that the financial community will be pleasantly surprised by the upbeat tone of third quarter earnings reports, and enthusiastic about the resurgence this fall. As cash flow improves, so will capital spending—particularly for investment in machinery and equipment that promises to enhance productivity by a significant amount.

Threat to Recovery

The biggest threat to prospects for solid expansion and low inflation could come from the Federal Reserve. Conventional wisdom in both Wall Street and Washington is that monetary policy

is restrictive. According to the chief U.S. economist of a major British bank, there is simply "not enough money" in circulation. This view is incorrect. It is based on a mistaken reading of the recent slowdown in broadly-defined measures of the money supply.

Meanwhile, whether from the right or the left, politicians are bringing intense pressure on the central bank to reflate. Spurred by both the White House and Congress, the Federal Reserve cut the discount rate to 5 from 5.5 percent. Political operatives in the Administration clearly want to control the election agenda next fall. They expect lower short-term interest rates to boost the economy well in advance of the coming campaign. On the other side, Democrats believe that money (in whatever form, from whatever source) is a universal balm for social ills.

This is a formula for disaster. Easy money will boomerang, if not in 1992, then in 1993. Attempts to hold down the cost of credit during an economic expansion always lead to higher, rather than lower, rates. Pushing rates down forces the Fed to print money. The more money the Fed prints, the more the expected inflation rate will rise. As a result, rates will go up at an accelerating pace as lenders seek to maintain the real rate of return on their funds. While inflation is falling at present because of tight money from 1987 through 1990, easy money could rekindle the fire of inflation before November 3, 1992.

The Fed cut the discount rate at a time when total bank reserves (high powered funds that represent raw material for the money supply) are rising. The rate of increase in reserves is still modest by the standards of the mid-1980s. Nonetheless, it is now going up rapidly. As measured by the Federal Reserve Bank of St. Louis, total reserves rose at an annual rate of almost 10 percent from January through August this year. Were this rate of increase to continue for another six to nine months, that would lead to a new found of inflation—and another recession. Both stock and bond prices dropped immediately after the discount rate cut. Obviously, investors are alert to the risk of renewed inflation.

It is true that broadly defined measures of the money supply—for example "M2," currency, checking accounts and individual thrift deposits—have been weak. However, this weakness does not indicate that Fed policy is, or has been, a drag on the economy. The slowdown was not due to policy action, but to portfolio decisions by the public in investing liquid assets. The Fed was mostly an innocent bystander.

In its conduct of policy, the only thing that the Fed controls directly is the size of its balance sheet—namely, the monetary base. The principal source of the base is the Fed's $260-billion-plus

portfolio of Treasury securities. The two uses of the base are currency in the hands of the public and total bank reserves. Put simply, The Fed's job is to increase its Treasury portfolio enough to satisfy the demand for U.S. currency, but not so fast as to flood banks with unwanted reserves.

The money that individuals and businesses keep on deposit and use to make payments to third parties is subject to reserve requirements. Bank and thrifts set aside a portion of such deposits at the Fed. However, only the Fed can add or subtract the total amount of reserves. From January through August this year, both bank reserves and transaction balances went up at annual rates close to 10 percent. This indicates that the Fed is adding to the part of the money supply for which it is responsible at a rapid pace.

Crises of Confidence

By contrast, depositors have pulled large amounts of investment funds out of time deposits at thrift institutions. Over the last two years, such accounts have dropped by almost $200 billion. By contrast, money market and savings accounts (which can be withdrawn on demand) have gone up at banks and thrifts, though much faster at the banks. With this background, the sluggish record of the higher Me begins to make sense.

A tight-fisted stance by the central bank does not account for the slow growth of the non-transaction parts of the money supply. Rather, the slowdown reflects a crisis of confidence in thrift institutions. This is obvious in the contrasting behavior of savings deposits and small time deposits at the thrifts. The former was going up at modest rate; the latter was dropping rapidly. Federal deposit insurance covers amounts up to $100,000. With thrifts failing at record rates, investors are naturally wary. Deposit insurance or no, savers are not willing to tie up their funds at institutions they do not trust.

The money that flowed out of thrift institutions did not go into a black hole. It went to alternative investments—for example, bond funds—that the Fed does not count as part of the money supply. According to an internal study by the Federal Reserve Bank of Dallas, if bond funds were included in the broadly-defined money supply, that aggregate would be well within its growth target range. The thrift crisis redirected the flow of funds in the economy. It did not cut off that flow. Economic performance will not be affected if savers choose to invest through mutual funds rather than mutual savings banks.

The threat of future inflation would be even greater if the central bank were to hold back from its next round of monetary tightening because of weakness in the banking sector. Conventional wisdom in lower Manhattan is that the fragile state of the nation's banks could become a major

barrier to the Fed in tightening policy. Any increase in the Federal funds rate, so the story goes, would squeeze bank lending margins. As a result, the money managers could be hesitant to let rates go up. We trust that Federal Reserve officials will ignore such nonsense.

More to point, the Fed cannot restore confidence in the thrifts by flooding commercial banks with excess money. Stop-go-stop monetary policy will eventually lead to inflation and a real credit crunch. The Federal Reserve has no role to play on the committee to re-elect the President. Happily, central bank officials appear to agree with this view.

Fed Governor Wayne Angell told the National Grain Trade Council the other day that "ill-conceived monetary policies will raise uncertainty about future prices and make investment decisions less efficient." Repeated speed-ups and slow downs in money growth, he added, will waste economic resources and lead to lower living standards. "Needless to say, the Federal Reserve is trying to avoid these costs by pursuing the goal of price stability" as one key to achieving maximum prosperity.

He added that trade policies which increase real economic activity will reduce the temptation to use Fed policy to boost short-term growth and thus damage long-term performance. "The rate of price increases can be edged down while real economic activity remains relatively vigorous."

A key element in the campaign to pressure the Fed into printing more money is the allegation that bankers need fresh cash so they can make loans. In fact, banks already have plenty of money. Not only have bank reserves been rising at close to a double digit rate since last winter, bank holdings of Treasury and state and local bonds have gone up almost $50 billion, a 13 percent rate of gain.

Bank loans, by contrast, have hardly changed over the last seven or eight months. John P. LaWare, a member of the Fed, claims this is because banks are "backing away from making loans at all and [are] reluctant to renew loans except for the most creditworthy borrowers." According to another leading expert on financial institutions, loans to commercial and industrial firms at the nation's banks dropped $19 billion from May 1990 through June 1991. These data purportedly "give credence to the cries of a credit crunch."

Red Herring

At its previous meeting in March, The Shadow Open Market Committee correctly identified the so-called credit crunch as a red herring. The credit crunch continues to be a red herring today. The drop in business loans neither indicates a shortage of money nor a refusal by bankers to lend.

To the contrary, banks are cutting loan rates in an effort to drum up business. Anyone with the wits or inclination to read history knows that bank loans (especially bank loans to business) always lag the economic cycle. Banks always load up on Treasury bonds in the early stage of an expansion.

As activity rebounds, corporate cash flow naturally improves from higher profits and from the sale of goods from inventory. Business people use this cash to repay debt—typically for many months after the expansion gets under way. At the same time, sales of corporate bonds soared to a rate of $160 billion in the second quarter, the highest since 1986. Companies used the proceeds to pay off short-term debt. Net demand for credit from the corporate sector dropped to zero last spring. That reflected both the aftermath of the recession and the beginning of the rebound in cash flow.

Even though the growth of nonfederal, nonfinancial debt dropped to a postwar low this year, the ratio of private debt to GNP has merely stabilized. This ratio has not gone down since the recession began. From 1983 through 1989, it rose rapidly. The slowdown in debt was caused by three factors: One, the borrowing binge of the 1980s inevitably had to end. Individual and corporate borrowers had to rebuild their balance sheets. Two, as the rate of inflation declined, there was a parallel slowing in the growth of debt. Three, the demand for credit fell when the economy slipped into recession.

Notably absent from this list are references to a refusal by bankers to lend or by the Fed to add to the money supply (at least since last winter). As a matter of fact, the credit crunch is a myth. Fed officials created the myth of a credit crunch in 1990 to divert attention from the fact that monetary policy was too tight. Now that the Fed has eased, easy money advocates in the White House and on Capital Hill have perpetuated the myth to pressure the Fed to pump up the money supply even more.

In reality, there is little to suggest that structural problems in the financial system will block the recovery. While some real estate developers are having trouble getting credit, that is appropriate. Bankers are correct in tightening up. The last thing the U.S. needs at present is more empty office buildings or failed banks.

Economic recovery in 1991-92 should be largely internally financed. The improvement in corporate profits and cash flow should obviate most borrowing needs. Indeed, on an overall basis, nonfinancial corporations were modest net suppliers of funds to the credit market in the second

quarter. Meanwhile, bank profits are improving on new loans. A recent Federal Reserve survey of loan officers showed that fewer banks were tightening credit standards than in the fourth quarter of 1990.

The difficulties in the banking system are real enough. Demand for credit is weak, and lenders are properly cautious about lending to marginal borrowers. The economy went into recession because the Federal Reserve overdid its preemptive strike against inflation, not because lenders went on strike against borrowers. Now that the Federal Reserve is once again adding to the supply to high powered money, the economy is coming back.

In the end, responsibility for ending the recession lies with the institution that caused it—the Federal Reserve. Don't be deceived by the canard that U.S. banks are so weak that when the Fed doles out a few bucks, no one will use them. The real story is that if the Fed puts money in the marketplace, someone, somewhere will use it. As the U.S. Chamber of Commerce warned the other day, "many analysts and policy makers mistakenly believe the Fed can jumpstart the economy with a flood of new money. It has not and it should not."

Expansion or Double Dip

Economists have sharply divided over whether the sluggish pattern in the labor market during the last several months suggest continued expansion or a double dip recession. The consensus, by a wide margin, is that the limited gains in jobs since April point to sluggish growth for an indefinite period—perhaps well into 1993. On September 6, the Labor Department reported that payroll employment rose 34,000 in August after falling a revised 73,000 in July. Labor also said that the average work week rose by 0.3 hour, partly offsetting July's drop of 0.5 hour.

We take a different tack. Our comparison of the current cycle with the eight earlier postwar downturns makes plain that we are seeing a classic pattern. The 1990-91 slump was shorter and shallower than its predecessors, but the track that it is taking is right on course with the typical slump since World War II. Most important, it is characteristic for payroll employment to hit bottom and then move sideways for anywhere from four to eight months.

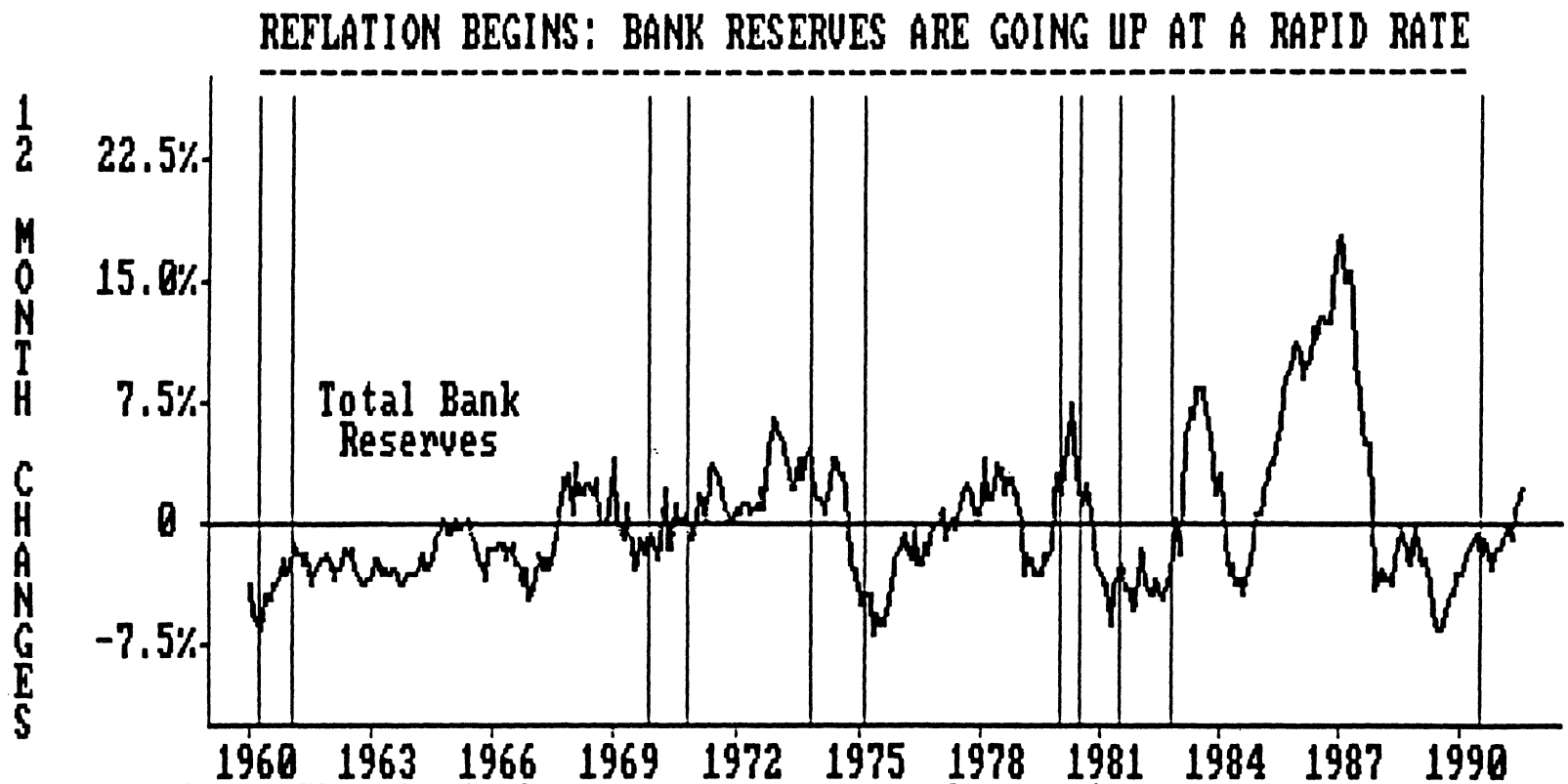
Our advice—to portfolio mangers and to the Fed—is to be patient. The rapid improvement in profitability which is already underway will soon lead to increased demand for labor, and thus, in time, to higher income and spending. Indeed, the underlying trend in real retail sales—despite ragged ups-and-downs from month to month—makes clear that business must boost its orders to rebuild inventories of consumer goods and materials.

As it is, new orders for consumer durables averaged almost $82 billion per month in the three months ended July, up at an annual rate of more than 20 percent from the comparable period ending in March. Our Baseline Forecast does not suggest a large inventory cycle in 1991-92. However, actions to rebuild inventories should play an important role in kicking off the growth process.

Our analysis of the real economy measured in 1987 dollars shows that business activity turned up modestly, but decisively in the second quarter. By contrast, the current 1982 dollar estimate shows a small decline. The Commerce Department expects to convert to a 1987 base for measuring real GNP in later November when it releases revised data for the third quarter. At the same time, Commerce plans to shift the emphasis of its report to gross domestic product from gross national product. (The two measures are very similar. GDP is GNP less net investment income from overseas.)

Gross national product in 1987 dollars rose at an annual rate of almost $9 billion in the second quarter, after falling $34 billion in the first quarter and $38 billion in the fourth. The principal factor in the turnaround was consumer spending, which rose almost $19 billion. The increase was concentrated entirely in outlays for nondurables and services. Business investment was down, but only by $5 billion, following a $23 billion slump during the winter months.

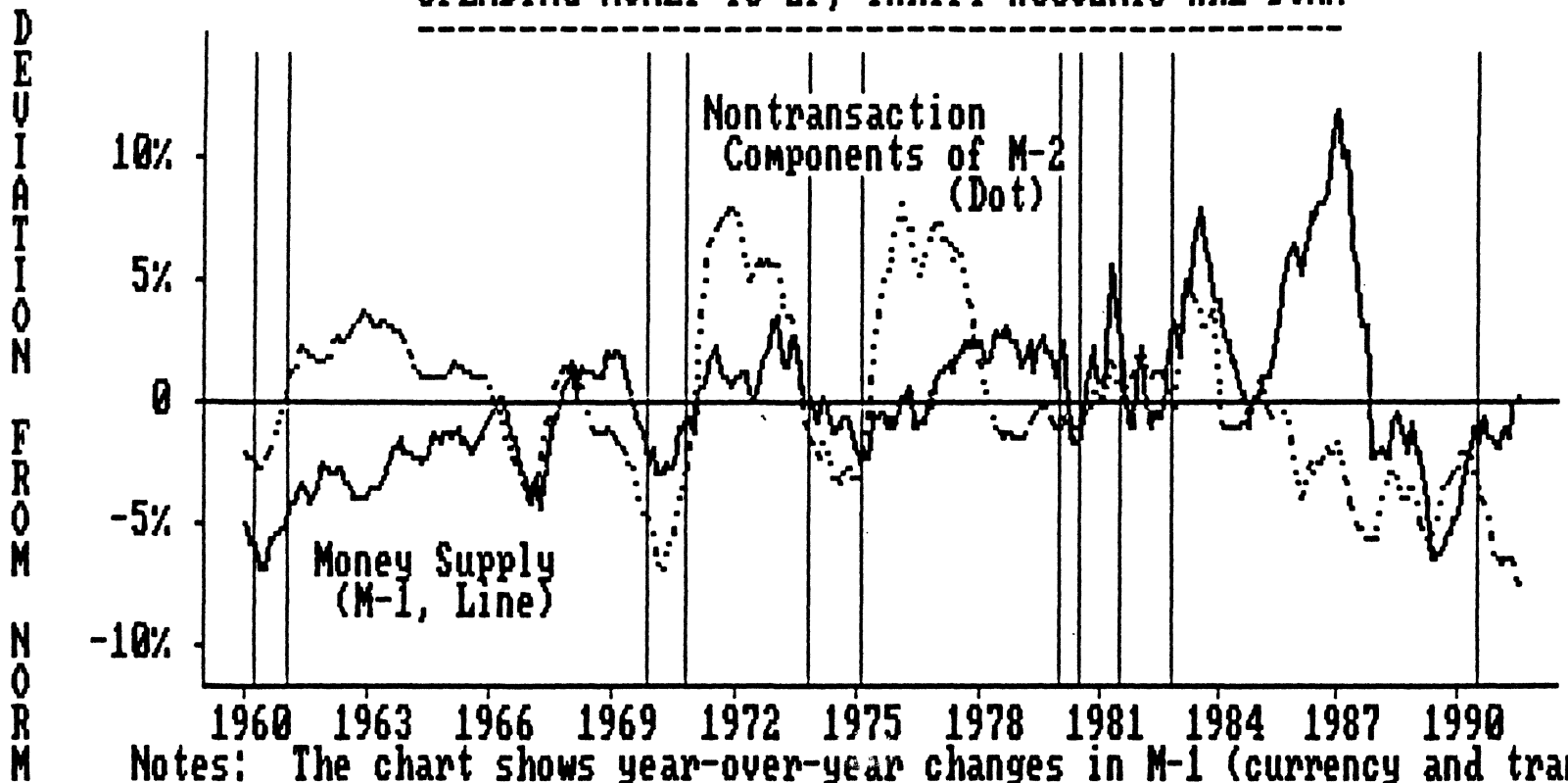
Housing posted a small increase. Inventory investment made a modest contribution to the upswing (the rate of decline was slower in the second quarter than in the first). However, this was more than offset by a cutback in the trade surplus. Imports of goods and services rose more than exports. On balance, these data point to the beginning of a solid, sustainable upswing.



Notes: The chart shows year-over-year changes in total bank reserves less the mean rate of change (4.42%) from 1960 through 1991. Bank reserves are the FRB monetary base less currency held by the public. The vertical lines show official recessions.

Sources Citibase; Heinemann Economic Research

SPENDING MONEY IS UP; THRIFT ACCOUNTS ARE DOWN



Notes: The chart shows year-over-year changes in M-1 (currency and transaction balances) and in nontransaction parts of M-2 (mostly individual thrift accounts), less the mean change 1960-1991 - respectively, 5.9% and 9.3%. Vertical lines show official recessions.

Sources: Citibase; Heinemann Economic Research

Corporate Profits - 1990-1991

(Billions of Dollars - Seasonally Adjusted Annual Rates)

INDUSTRY:	1990	19901	199002	199003	199004	199101	199102	CHANGE Q/Q	CHANGE Y/Y
Manufacturing									
Durable Goods									
Primary Metals	$4.1	$4.9	$5.4	$3.6	$2.4	$1.4	$1.4	0.0%	-74.1%
Fabricated Metal	4.9	6.4	6.0	4.8	2.4	2.0	4.0	100.0%	-33.3%
Machinery, ex Elec.	6.7	7.3	7.9	6.3	5.2	5.8	5.6	-3.4%	-29.1%
Elec & Electronic	6.8	8.6	7.8	6.6	4.3	5.9	5.0	-15.3%	-35.9%
Motor Vehicles	-7.0	-7.2	-4.3	-5.4	-11.2	-14.2	-11.0	NM	NM
Other	15.6	17.4	16.7	14.3	14.1	11.3	11.9	5.3%	-28.7%
Total Durables	31.1	37.4	39.5	30.2	17.2	12.2	16.9	38.5%	-57.2%
Nondurables									
Food & Kindred	14.2	10.9	15.3	15.7	14.8	17.1	18.4	7.6%	20.3%
Chemicals	21.3	21.9	22.7	22.1	18.6	16.2	18.8	16.0%	-17.2%
Petroleum & Coal	4.3	1.0	3.7	3.7	8.7	10.5	4.8	-54.3%	29.7%
Other	17.9	18.9	19.6	19.4	13.8	11.1	13.1	18.0%	-33.2%
Total Nondurables	57.7	52.7	61.3	60.9	55.9	54.9	55.1	0.4%	-10.1%
Total Manufacturing	88.8	90.1	100.8	91.1	73.1	67.1	72.0	7.3%	-28.6%
Services									
Transport & Pub Util	41.6	41.5	41.9	42.8	40.2	41.9	43.7	4.3%	4.3%
Wholesale & Retail	41.5	39.2	44.4	39.5	42.8	46.2	47.6	3.0%	7.2%
Other	45.9	45.7	44.6	45.9	47.4	43.7	39.7	-9.2%	-11.0%
Total Services	129.0	126.4	130.9	128.2	130.4	131.8	131.0	-0.6%	0.1%
Total Dom. Nonfinancial	217.8	216.5	231.7	219.3	203.5	198.9	203.0	2.1%	-12.4%
Foreign	56.9	52.9	48.9	57.6	68.0	68.2	57.9	-15.1%	18.4%
Total Nonfinancial	274.6	269.4	280.6	276.9	271.5	267.1	260.9	-2.3%	-7.0%
Private Financial	-2.8	-4.7	-2.9	-0.8	-2.9	1.3	2.8	NM	NM
Federal Reserve	21.6	20.8	21.1	22.6	21.7	21.2	20.4	-3.8%	-3.3%
TOTAL PROFITS	293.3	285.5	298.8	298.7	290.3	289.6	284.1	-1.9%	-4.9%

Profits are pretax, adjusted for inventory profits or losses.
NM = Not Meaningful
Sources: Bureau of Economic Analysis; Heinemann Economic Research

GROSS NATIONAL PRODUCT

(Billions of 1987 Dollars)

	I'90	II'90	III'90	IV'90	I'91	II'91	1988	1989	1990
Gross National Product ($87)	**$4,836.2**	**$4,849.8**	**$4,869.9**	**$4,831.6**	**$4,797.4**	**$4,806.4**	**$4,703.4**	**$4,809.1**	**$4,846.9**
Pct Chg	1.00%	1.13%	1.67%	-3.11%	-2.80%	0.75%	4.16%	2.25%	0.78%
Personal Consumption ($87)	**$3,198.9**	**$3,201.8**	**$3,223.0**	**$3,199.4**	**$3,188.5**	**$3,207.4**	**$3,114.7**	**$3,172.7**	**$3,205.8**
Pct Chg	1.53%	0.36%	2.67%	-2.90%	-1.36%	2.39%	3.50%	1.86%	1.04%
Durables ($87)	**$468.8**	**$455.6**	**$458.8**	**$443.2**	**$428.0**	**$424.7**	**$450.4**	**$458.8**	**$456.6**
Pct Chg	15.00%	-10.80%	2.84%	-12.92%	-13.03%	-3.05%	6.37%	1.88%	-0.48%
Nondurables ($87)	**$1,027.5**	**$1,023.3**	**$1,028.7**	**$1,012.7**	**$1,007.9**	**$1,013.6**	**$1,019.3**	**$1,031.6**	**$1,023.1**
Pct Chg	-2.45%	-1.63%	2.13%	-6.08%	-1.88%	2.28%	1.80%	1.20%	-0.82%
Services ($87)	**$1,702.6**	**$1,722.8**	**$1,735.6**	**$1,743.5**	**$1,752.6**	**$1,769.2**	**$1,645.1**	**$1,682.3**	**$1,726.1**
Pct Chg	0.57%	4.83%	3.01%	1.83%	2.10%	3.84%	3.81%	2.26%	2.61%
Business Investment ($87)	**$489.9**	**$482.9**	**$495.2**	**$485.3**	**$462.0**	**$457.0**	**$477.2**	**$487.8**	**$488.3**
Pct Chg	5.14%	-5.59%	10.58%	-7.76%	-17.87%	-4.26%	7.25%	2.22%	0.11%
Structures ($87)	**$135.1**	**$133.1**	**$134.4**	**$127.0**	**$124.0**	**$119.5**	**$133.6**	**$134.9**	**$132.4**
Pct Chg	1.80%	-5.79%	3.96%	-20.27%	-9.12%	-13.74%	-0.04%	0.95%	-1.85%
Prod. Dur. Equip. ($87)	**$354.8**	**$349.8**	**$360.8**	**$358.3**	**$338.0**	**$337.5**	**$343.6**	**$352.9**	**$355.9**
Pct Chg	6.45%	-5.52%	13.18%	-2.74%	-20.81%	-0.59%	10.09%	2.71%	0.86%
Residential Invest. ($87)	**$216.9**	**$210.6**	**$199.2**	**$188.0**	**$174.8**	**$175.9**	**$224.5**	**$215.5**	**$203.7**
Pct Chg	14.90%	-11.12%	-19.96%	-20.66%	-25.26%	2.54%	-0.81%	-4.04%	-5.47%
Change in Inventory ($87)	**($11.9)**	**$10.6**	**$8.8**	**($27.1)**	**($31.1)**	**($30.6)**	**$26.4**	**$25.1**	**($4.9)**
Exports ($87)	**$610.6**	**$605.2**	**$613.4**	**$628.7**	**$622.9**	**$628.3**	**$526.7**	**$584.1**	**$614.5**
Pct Chg	7.54%	-3.49%	5.53%	10.36%	-3.64%	3.51%	17.15%	10.90%	5.20%
Imports ($87)	**$626.9**	**$629.9**	**$640.6**	**$623.8**	**$599.6**	**$615.0**	**$595.8**	**$621.4**	**$630.3**
Pct Chg	0.32%	1.93%	6.97%	-10.08%	-14.64%	10.68%	5.57%	4.31%	1.43%
Net Exports ($87)	**($16.3)**	**($24.7)**	**($27.2)**	**$4.9**	**$23.3**	**$13.3**	**($69.0)**	**($37.3)**	**($15.8)**
Government Purchases ($87)	**$958.7**	**$968.7**	**$970.7**	**$981.1**	**$980.0**	**$983.3**	**$929.6**	**$945.5**	**$969.8**
Pct Chg	4.11%	4.24%	0.83%	4.35%	-0.45%	1.35%	0.88%	1.71%	2.57%
Final Domestic Sales ($87)	**$4,864.4**	**$4,863.9**	**$4,888.3**	**$4,853.8**	**$4,805.2**	**$4,823.7**	**$4,746.0**	**$4,821.4**	**$4,867.6**
Pct Chg	2.96%	-0.04%	2.02%	-2.79%	-3.95%	1.55%	3.13%	1.59%	0.96%
GNP Deflator (1987=100)	**111.1**	**112.2**	**113.2**	**114.4**	**115.8**	**116.8**	**103.6**	**108.1**	**112.8**
Pct Chg	5.62%	3.97%	3.61%	4.16%	5.16%	3.47%	3.61%	4.37%	4.27%
Fixed Weight Deflator (1987=100)	**111.4**	**112.5**	**113.5**	**114.7**	**116.1**	**117.0**	**103.7**	**108.3**	**113.0**
Pct Chg	5.96%	4.01%	3.60%	4.30%	4.97%	3.14%	3.67%	4.44%	4.39%

Source: Bureau of Economic Analysis; Heinemann Economic Research

THE ECONOMY:	I'90		II'90		III'90		IV'90		1990	
	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg
Gross National Product ($87)	$11.9	1.00%	$13.7	1.13%	$19.8	1.67%	($38.1)	-3.11%	$37.7	0.78%
Personal Consumption ($87)	$12.1	1.02%	$2.9	0.24%	$21.2	1.79%	($23.6)	-1.93%	$33.1	0.69%
Durables ($87)	$16.1	1.35%	($13.2)	-1.09%	$3.2	0.27%	($15.6)	-1.27%	($2.2)	-0.05%
Nondurables ($87)	($6.4)	-0.54%	($4.2)	-0.35%	$5.4	0.45%	($16.0)	-1.31%	($8.5)	-0.18%
Services ($87)	$2.4	0.20%	$20.2	1.67%	$12.8	1.08%	$7.9	0.64%	$43.8	0.91%
Business Investment ($87)	$6.1	0.51%	($7.0)	-0.58%	$12.3	1.04%	($9.9)	-0.81%	$0.6	0.01%
Structures ($87)	$0.6	0.05%	($2.0)	-0.16%	$1.3	0.11%	($7.4)	-0.60%	($2.5)	-0.05%
Prod. Dur. Equip. ($87)	$5.5	0.46%	($5.0)	-0.41%	$11.0	0.93%	($2.5)	-0.20%	$3.1	0.06%
Residential Invest. ($87)	$7.4	0.62%	($6.3)	-0.52%	($11.4)	-0.96%	($11.2)	-0.91%	($11.8)	-0.25%
Change in Inventory ($87)	($33.8)	-2.84%	$22.5	1.86%	($1.8)	-0.15%	($35.9)	-2.93%	($30.0)	-0.63%
Exports ($87)	$11.0	0.92%	($5.4)	-0.45%	$8.2	0.69%	$15.3	1.25%	$30.4	0.63%
Imports ($87)	$0.5	0.04%	$3.0	0.25%	$10.7	0.90%	($16.8)	-1.37%	$8.9	0.18%
Net Exports ($87)	$10.5	0.88%	($8.4)	-0.69%	($2.5)	-0.21%	$32.1	2.62%	$21.5	0.45%
Government Purchases ($87)	$9.6	0.81%	$10.0	0.82%	$2.0	0.17%	$10.4	0.85%	$24.3	0.51%
Final Domestic Sales ($87)	$35.3	2.96%	($0.5)	-0.04%	$24.4	2.06%	($34.5)	-2.82%	$46.3	0.96%
GNP ($87) Four qtr chg (%)		1.05%		1.01%		0.93%		0.15%		

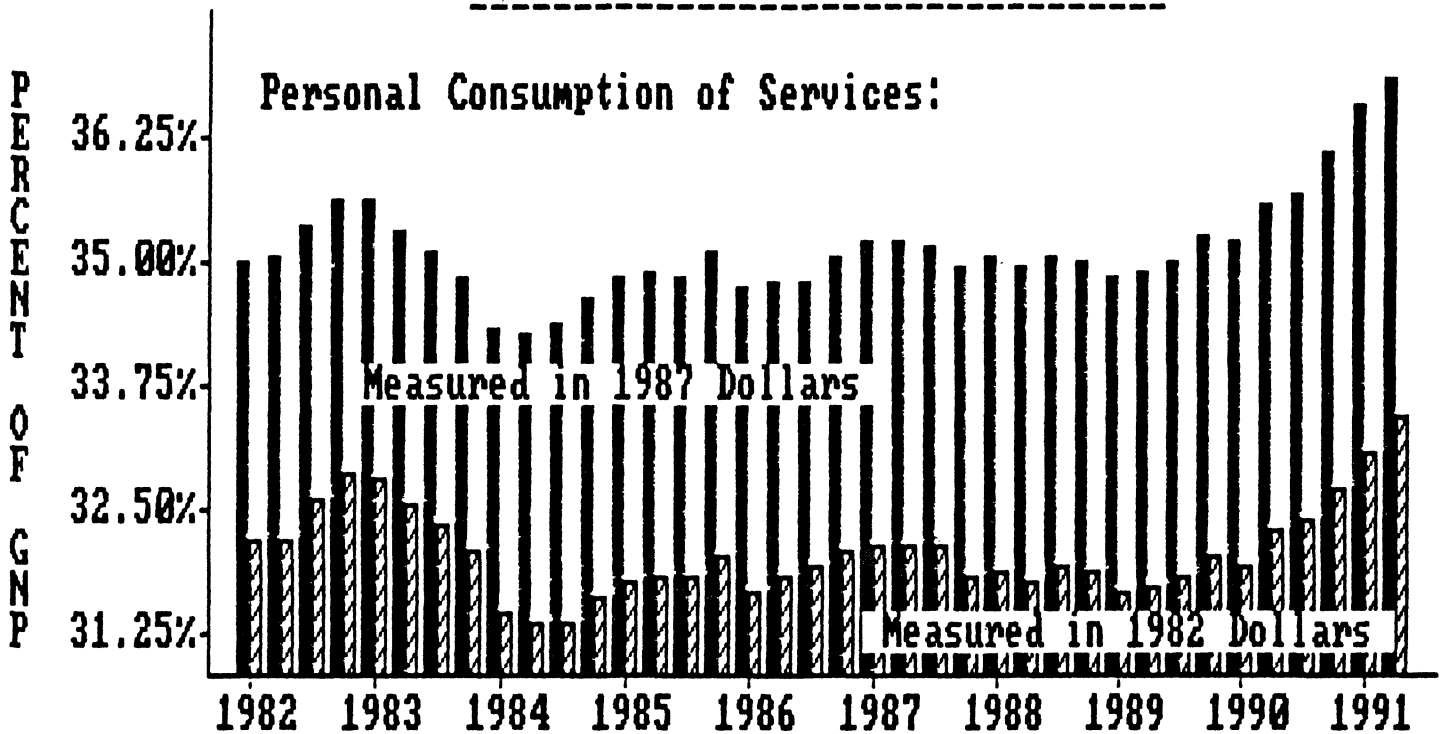
THE ECONOMY:	I'91		II'91		III'91		IV'91		1991	
	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg
Gross National Product ($87)	($34.1)	-2.80%	$8.8	0.75%						
Personal Consumption ($87)	($10.9)	-0.90%	$18.9	1.62%						
Durables ($87)	($15.2)	-1.25%	($3.3)	-0.28%						
Nondurables ($87)	($4.8)	-0.39%	$5.7	0.49%						
Services ($87)	$9.1	0.75%	$16.6	1.42%						
Business Investment ($87)	($23.3)	-1.91%	($5.0)	-0.43%						
Structures ($87)	($3.0)	-0.25%	($4.5)	-0.38%						
Prod. Dur. Equip. ($87)	($20.3)	-1.67%	($0.5)	-0.04%						
Residential Invest. ($87)	($13.2)	-1.08%	$1.1	0.09%						
Change in Inventory ($87)	($4.0)	-0.33%	$0.5	0.04%						
Exports ($87)	($5.8)	-0.48%	$5.4	0.46%						
Imports ($87)	($24.2)	-1.99%	$15.4	1.32%						
Net Exports ($87)	$18.4	1.51%	($10.0)	-0.86%						
Government Purchases ($87)	($1.1)	-0.09%	$3.3	0.28%						
Final Domestic Sales ($87)	($48.6)	-3.99%	$18.5	1.58%						
GNP ($87) Four qtr chg (%)		-0.80%		-0.89%						

THE ECONOMIC LANDSCAPE IS CHANGING

Notes: The chart shows business fixed investment in new plant and equipment as a percent of gross national product, measured, respectively, in 1982 and 1987 dollars. Underlying data at seasonally adjusted annual rates.

Sources: Citibase; Heinemann Economic Research

THE ECONOMIC LANDSCAPE IS CHANGING



Notes: The chart shows personal consumption of services as a percent of gross national product, measured, respectively, in 1982 and 1987 dollars. Underlying data are at seasonally adjusted annual rates.

Sources: Citibase; Heinemann Economic Research

HEINEMANN ECONOMIC RESEARCH

Baseline Forecast - September 1991

	IV'90 A	I'91 A	II'91 A	III'91 F	IV'91 F	I'92 F	II'92 F	III'92 F	IV'92 F	1990 A	1991 F	1992 F
THE ECONOMY:												
Gross National Product ($82)	$4,153.4	$4,124.0	$4,118.9	$4,150.0	$4,191.4	$4,239.5	$4,287.2	$4,337.8	$4,388.4	$4,157.3	$4,146.1	$4,313.2
Pct Chg	-1.6%	-2.8%	-0.5%	3.0%	4.1%	4.7%	4.6%	4.8%	4.7%	1.0%	-0.3%	4.0%
Personal Consumption ($82)	$2,673.6	$2,663.7	$2,680.5	$2,695.1	$2,710.3	$2,725.9	$2,745.0	$2,763.0	$2,779.5	$2,681.6	$2,687.4	$2,753.3
Pct Chg	-3.4%	-1.5%	2.5%	2.2%	2.3%	2.3%	2.8%	2.6%	2.4%	0.9%	0.2%	2.5%
Business Investment ($82)	$519.4	$496.8	$498.5	$503.9	$518.6	$542.1	$551.9	$563.5	$578.4	$515.4	$504.5	$559.0
Pct Chg	0.1%	-16.3%	1.4%	4.4%	12.2%	19.4%	7.4%	8.7%	11.0%	1.8%	-2.1%	10.8%
Structures ($82)	$116.4	$113.7	$109.5	$110.5	$111.7	$112.0	$112.1	$113.5	$115.7	$120.9	$111.4	$113.3
Prod. Dur. Equip. ($82)	$403.1	$383.1	$389.0	$393.4	$406.9	$430.1	$439.7	$449.9	$462.7	$394.6	$393.1	$445.6
Residential Invest. ($82)	$163.3	$151.8	$152.4	$156.6	$163.8	$170.5	$176.4	$184.5	$192.2	$176.9	$156.2	$180.9
Pct Chg	-20.6%	-25.3%	1.6%	11.6%	19.7%	17.4%	14.6%	19.7%	17.7%	-5.4%	-11.7%	15.9%
Change in Inventory ($82)*	($28.9)	($26.5)	($26.5)	($21.4)	($17.3)	($14.3)	($1.4)	$9.9	$16.0	($5.4)	($22.9)	$2.6
Net Exports ($82)	($8.8)	$7.1	($12.6)	($13.7)	($18.1)	($21.6)	($23.4)	($24.2)	($25.2)	($33.8)	($9.3)	($23.6)
Government Purchases ($82)*	$834.8	$831.1	$826.6	$829.4	$834.0	$836.9	$838.7	$841.2	$847.5	$822.6	$830.3	$841.1
Pct Chg	6.7%	-1.8%	-2.1%	1.4%	2.3%	1.4%	0.8%	1.2%	3.1%	2.5%	0.9%	1.3%
Final Domestic Sales ($82)	$4,191.1	$4,143.4	$4,158.0	$4,185.1	$4,226.8	$4,275.5	$4,312.0	$4,352.2	$4,397.6	$4,196.5	$4,178.3	$4,334.3
Pct Chg	-1.8%	-4.5%	1.4%	2.6%	4.0%	4.7%	3.5%	3.8%	4.2%	1.1%	-0.4%	3.7%
Gross Nat'l Prod. ($ Current)	$5,527.3	$5,557.7	$5,612.4	$5,709.2	$5,805.2	$5,902.6	$6,010.3	$6,124.1	$6,245.1	$5,465.2	$5,671.1	$6,070.5
Pct Chg	0.9%	2.2%	4.0%	7.1%	6.9%	6.9%	7.5%	7.8%	8.1%	5.1%	3.8%	7.0%
Disposable Income ($82)	$2,872.4	$2,861.9	$2,877.9	$2,912.5	$2,953.3	$2,983.1	$3,010.4	$3,040.7	$3,065.5	$2,893.5	$2,901.4	$3,024.9
Pct Chg	-3.5%	-1.5%	2.3%	4.9%	5.7%	4.1%	3.7%	4.1%	3.3%	0.9%	0.3%	4.3%
Savings Rate (Percent)	4.2%	4.2%	4.2%	4.8%	5.4%	5.8%	5.8%	6.0%	6.2%	4.6%	4.7%	5.9%
Operating Profits ($ Current)	$288.9	$286.2	$284.4	$294.9	$310.8	$321.5	$335.7	$343.9	$354.1	$298.3	$294.1	$338.8
Pct Chg	-14.8%	-3.7%	-2.5%	15.6%	23.5%	14.4%	18.9%	10.2%	12.3%	-4.3%	-1.4%	15.2%
Industrial Prod. (1987=100)	108.5	105.8	106.4	108.5	111.1	112.5	115.8	118.0	120.4	109.2	107.9	116.7
Pct Chg	-7.0%	-9.6%	2.3%	8.2%	9.7%	5.4%	12.3%	7.7%	8.2%	1.0%	-1.1%	8.1%
Housing Starts (Thou. Units)	1,042	915	998	1,078	1,107	1,155	1,227	1,292	1,386	1,203	1,025	1,265
Pct Chg	-27.8%	-40.5%	41.3%	36.2%	11.3%	18.2%	27.5%	22.8%	32.4%	-13.4%	-14.8%	23.4%
Auto Sales (Million Units)	8.972	8.230	8.358	8.6	8.8	9.1	9.5	9.7	10.0	9.508	8.5	9.6
Pct Chg	-27.4%	-29.2%	6.4%	9.8%	12.1%	13.8%	18.3%	9.5%	13.2%	-4.1%	-10.7%	12.8%
Total Employment (Millions)	117.6	116.9	117.0	117.4	117.9	118.6	119.3	119.7	120.6	117.9	117.3	119.5
Pct Chg	-0.9%	-2.4%	0.3%	1.4%	1.9%	2.2%	2.6%	1.4%	2.7%	0.5%	-0.5%	1.9%
Unemployment Rate (Percent)	5.9%	6.5%	6.8%	7.0%	6.8%	6.5%	6.2%	6.0%	5.7%	5.5%	6.8%	6.1%
Comp. Per Hour Non-Farm Bus**	139.5	140.9	142.5	143.7	144.9	146.2	147.4	149.0	151.1	137.2	143.0	148.4
Pct Chg	3.8%	4.1%	4.6%	3.5%	3.4%	3.6%	3.2%	4.4%	5.8%	3.9%	4.2%	3.8%
Productivity Non-Farm Bus**	111.2	111.2	111.4	112.5	113.6	114.5	115.2	115.7	116.6	111.3	112.2	115.5
Pct Chg	-1.1%	0.0%	0.7%	4.1%	3.9%	3.2%	2.3%	1.9%	3.0%	-0.5%	0.8%	3.0%
Unit Labor Cost Non-Farm Bus**	125.4	126.7	128.0	127.7	127.6	127.7	128.0	128.8	129.6	123.4	127.5	128.5
Pct Chg	4.6%	4.2%	4.2%	-0.9%	-0.5%	0.4%	0.8%	2.5%	2.7%	4.4%	3.4%	0.8%
GNP Deflator (1982=100)	133.1	134.8	136.3	137.6	138.5	139.2	140.2	141.2	142.3	131.5	136.8	140.7
Pct Chg	2.5%	5.2%	4.5%	3.9%	2.7%	2.1%	2.8%	2.8%	3.2%	4.1%	4.0%	2.9%
CPI Less Energy (1982-84=100)	137.2	139.4	140.5	141.4	142.3	143.1	144.2	145.3	146.7	134.9	140.9	144.8
Pct Chg	4.1%	6.4%	3.3%	2.6%	2.5%	2.3%	3.1%	3.2%	3.9%	5.2%	4.4%	2.8%
Fed'l Deficit ($ Current NIA)	($184.3)	($126.9)	($185.0)	($191.4)	($211.5)	($216.9)	($238.4)	($220.2)	($189.2)	($160.1)	($178.7)	($216.2)
FINANCIAL MARKETS:												
Federal Funds Rate	7.74%	6.43%	5.86%	5.5%	5.3%	5.8%	6.2%	6.3%	6.6%	8.1%	5.8%	6.2%
Three-month Bills (Discount)	6.99%	6.02%	5.56%	5.4%	5.1%	5.4%	5.6%	5.8%	6.0%	7.5%	[illegible]%	5.7%
Prime Rate, Major Banks	10.00%	9.19%	8.67%	8.1%	8.1%	8.0%	8.8%	9.0%	9.3%	10.0%		8.8%
30-Year Treasury Bonds	8.55%	8.20%	8.39%	8.2%	7.8%	7.9%	8.1%	8.3%	8.4%	8.6%	[illegible]%	8.2%
Money Supply (M-1, $ Current)	$822.6	$835.4	$850.7	$866.0	$882.7	$897.7	$911.5	$923.5	$932.6	$811.4	$858.7	$916.3
Pct Chg	3.5%	6.4%	7.5%	7.4%	8.0%	7.0%	6.3%	5.4%	4.0%	3.5%	5.8%	6.7%
Velocity (Ratio: GNP to M-1)	6.719	6.653	6.597	6.593	6.576	6.575	6.594	6.631	6.696	6.735	6.605	6.624
Pct Chg	-2.5%	-3.9%	-3.3%	-0.3%	-1.0%	-0.1%	1.2%	2.3%	4.0%	1.5%	-1.9%	0.3%
Trade-Weighted $ (1973=100)	84.3	84.6	93.0	94.3	94.0	93.0	90.2	91.1	92.0	89.4	91.4	91.6
Memo: CCC Purchases	($2.5)	($1.5)	$6.8	$3.1	($3.9)	($2.0)	$5.9	$3.3	($2.9)	($1.8)	$1.1	$1.1

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

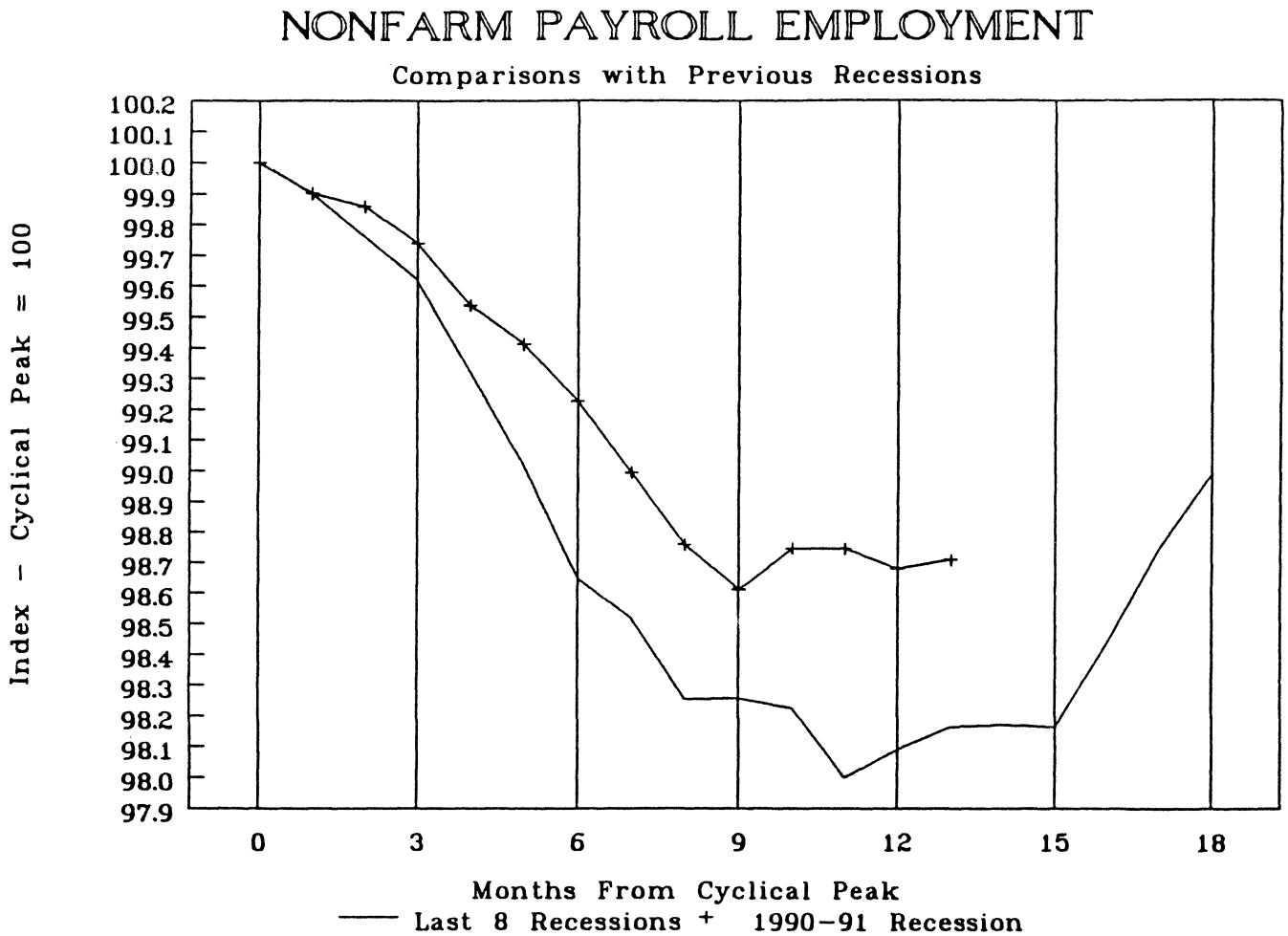
*Adjusted for Commodity Credit Corp. purchases. **Compensation, productivity and unit labor costs are index numbers, 1982 = 100.

Source: Citibase; Heinemann Economic Research

	I'90 A		II'90 A		III'90 A		IV'90 A		1990 A	
THE ECONOMY:	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg
Gross National Product ($82)	$17.2	1.67%	$4.6	0.44%	$14.9	1.44%	($16.6)	-1.58%	$39.5	0.96%
Personal Consumption ($82)	$7.4	0.72%	$1.5	0.14%	$18.0	1.74%	($23.2)	-2.21%	$24.8	0.60%
Business Investment ($82)	$6.2	0.60%	($6.2)	-0.60%	$10.9	1.05%	$0.1	0.01%	$9.3	0.23%
Structures ($82)	$0.7	0.07%	($2.9)	-0.28%	$1.5	0.15%	($6.0)	-0.57%	($1.5)	-0.04%
Prod. Dur. Equip. ($82)	$5.4	0.53%	($3.3)	-0.32%	$9.5	0.92%	$6.1	0.58%	$10.9	0.26%
Residential Invest. ($82)	$6.5	0.63%	($5.5)	-0.53%	($9.8)	-0.95%	($9.7)	-0.92%	($10.2)	-0.25%
Change in Inventory ($82)*	($23.1)	-2.25%	$19.8	1.91%	($4.6)	-0.45%	($34.9)	-3.33%	($24.4)	-0.59%
Net Exports ($82)	$12.5	1.22%	($9.2)	-0.89%	($1.9)	-0.18%	$37.7	3.59%	$20.3	0.49%
Government Purchases ($82)*	$7.7	0.75%	$4.2	0.41%	$2.3	0.22%	$13.4	1.28%	$19.7	0.48%
Final Domestic Sales ($82)	$27.8	2.71%	($6.0)	-0.58%	$21.4	2.07%	($19.4)	-1.85%	$43.7	1.06%
GNP ($82) Four qtr chg (%)		1.34%		1.05%		0.98%		0.49%		

	I'91 A		II'91 A		III'91 F		IV'91 F		1991 F	
THE ECONOMY:	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg
Gross National Product ($82)	($29.4)	-2.80%	($5.1)	-0.5%	$31.1	3.0%	$41.4	4.1%	($11.2)	-0.3%
Personal Consumption ($82)	($9.9)	-0.94%	$16.8	1.6%	$14.6	1.4%	$15.2	1.5%	$5.8	0.1%
Business Investment ($82)	($22.6)	-2.15%	$1.7	0.2%	$5.4	0.5%	$14.7	1.4%	($11.0)	-0.3%
Structures ($82)	($2.7)	-0.26%	($4.2)	-0.4%	$1.0	0.1%	$1.2	0.1%	($9.5)	-0.2%
Prod. Dur. Equip. ($82)	($20.0)	-1.91%	$5.9	0.6%	$4.4	0.4%	$13.5	1.3%	($1.5)	-0.0%
Residential Invest. ($82)	($11.5)	-1.10%	$0.6	0.1%	$4.2	0.4%	$7.2	0.7%	($20.7)	-0.5%
Change in Inventory ($82)*	$2.4	0.23%	$0.0	0.0%	$5.1	0.5%	$4.1	0.4%	($17.5)	-0.4%
Net Exports ($82)	$15.9	1.52%	($19.7)	-1.9%	($1.1)	-0.1%	($4.4)	-0.4%	$24.5	0.6%
Government Purchases ($82)*	($3.7)	-0.35%	($4.5)	-0.4%	$2.8	0.3%	$4.6	0.5%	$7.7	0.2%
Final Domestic Sales ($82)	($47.7)	-4.55%	$14.6	1.4%	$27.1	2.7%	$41.7	4.1%	($18.1)	-0.4%
GNP ($82) Four qtr chg (%)		-0.64%		-0.9%		-0.5%		0.9%		

	I'92 F		II'92 F		III'92 F		IV'92 F		1992 F	
THE ECONOMY:	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg	$ Change	Pct Chg
Gross National Product ($82)	$48.2	4.7%	$47.6	4.6%	$50.7	4.8%	$50.5	4.7%	$167.2	4.0%
Personal Consumption ($82)	$15.6	1.5%	$19.1	1.8%	$18.0	1.7%	$16.5	1.5%	$65.9	1.6%
Business Investment ($82)	$23.5	2.3%	$9.8	0.9%	$11.6	1.1%	$14.9	1.4%	$54.5	1.3%
Structures ($82)	$0.2	0.0%	$0.2	0.0%	$1.4	0.1%	$2.2	0.2%	$2.0	0.0%
Prod. Dur. Equip. ($82)	$23.3	2.3%	$9.6	0.9%	$10.2	1.0%	$12.7	1.2%	$52.5	1.3%
Residential Invest. ($82)	$6.7	0.7%	$5.9	0.6%	$8.1	0.8%	$7.7	0.7%	$24.8	0.6%
Change in Inventory ($82)*	$3.0	0.3%	$12.9	1.2%	$11.3	1.1%	$6.1	0.6%	$25.5	0.6%
Net Exports ($82)	($3.5)	-0.3%	($1.8)	-0.2%	($0.8)	-0.1%	($1.0)	-0.1%	($14.3)	-0.3%
Government Purchases ($82)*	$2.9	0.3%	$1.7	0.2%	$2.5	0.2%	$6.3	0.6%	$10.8	0.3%
Final Domestic Sales ($82)	$48.7	4.7%	$36.5	3.5%	$40.2	3.8%	$45.4	4.3%	$156.0	3.8%
GNP ($82) Four qtr chg (%)		2.8%		4.1%		4.5%		4.7%		


NONFARM PAYROLL EMPLOYMENT
Comparisons with Previous Recessions
Index - Cyclical Peak = 100
100.2
100.1
100.0
99.9
99.8
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99.5
99.4
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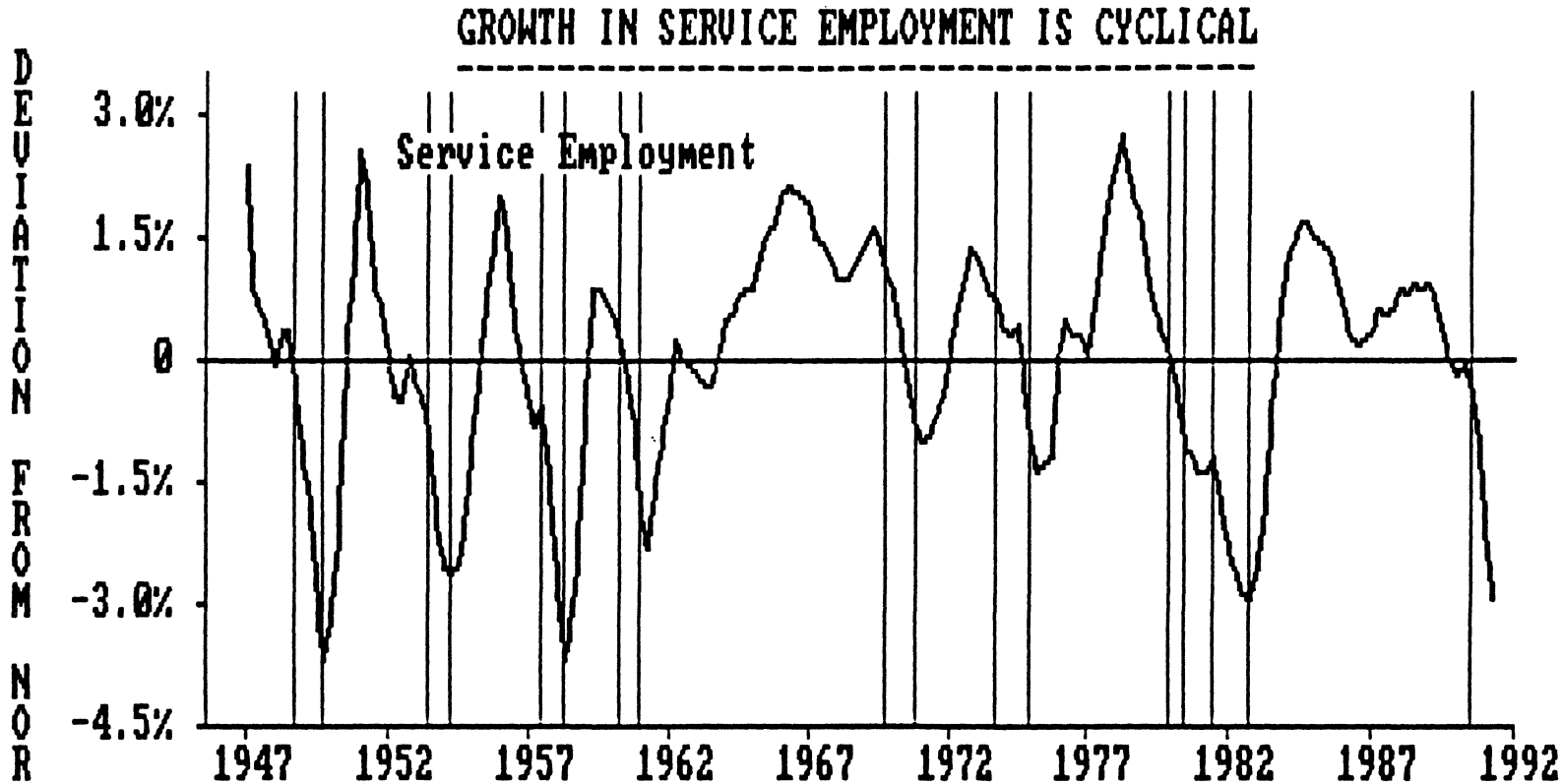
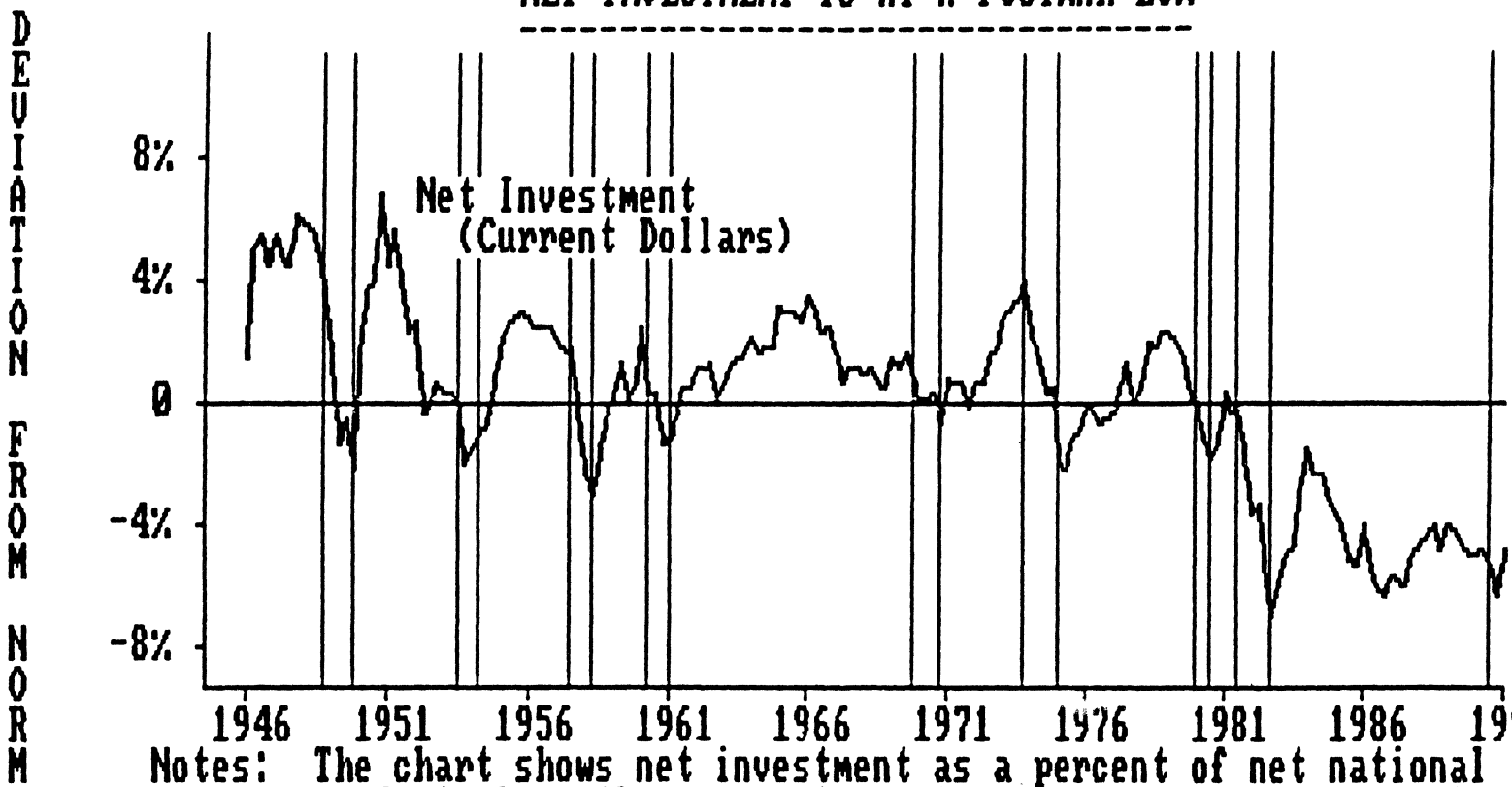
3
6
9
12
15
18
Months From Cyclical Peak
Last 8 Recessions
1990-91 Recession



Notes: The chart shows year-over-year changes in total employment in service-producing sectors (public and private) less the mean rate of increase (2.86 percent) from 1947 through 1991. The vertical lines show official periods of recession.

Sources: Citibase; Heinemann Economic Research

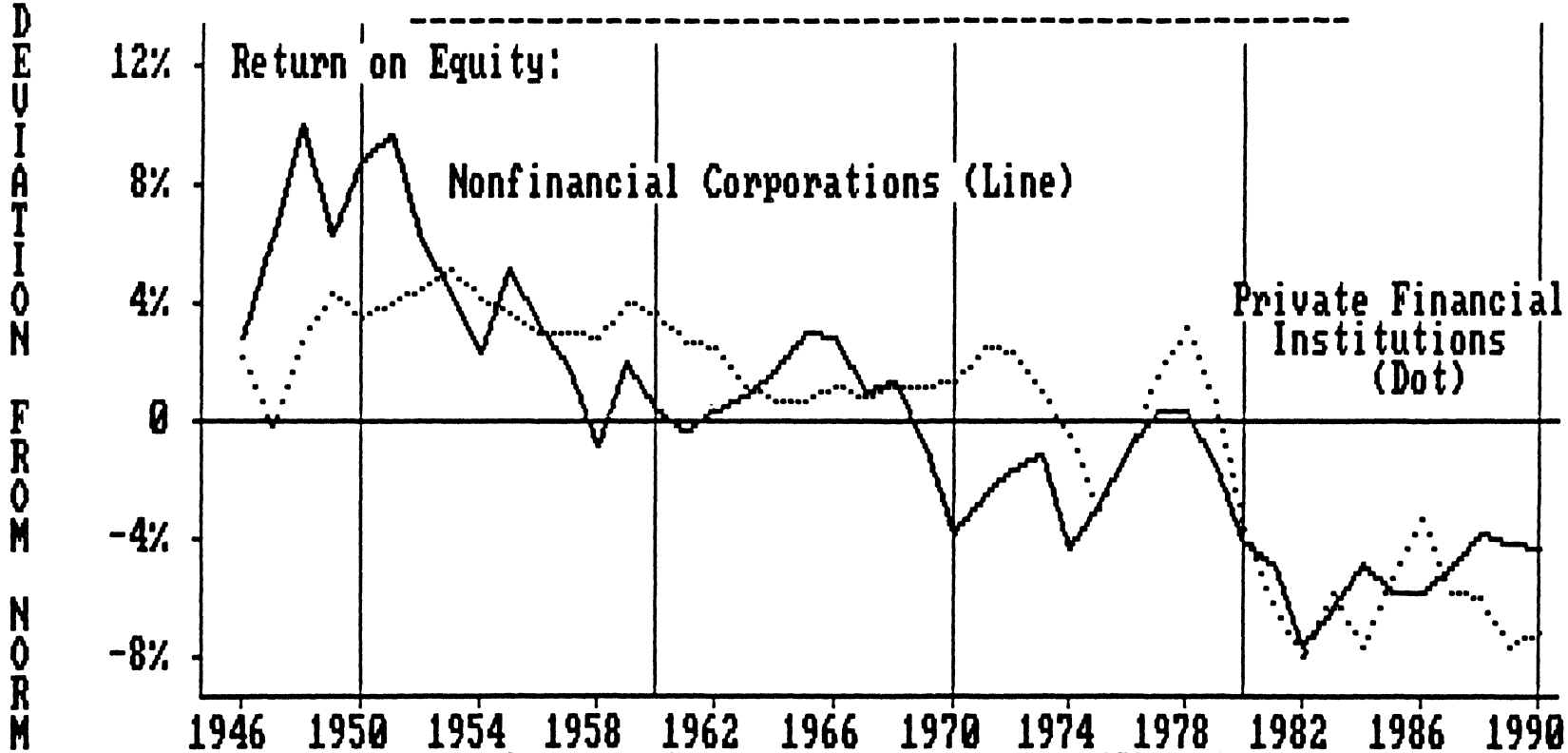
NET INVESTMENT IS AT A POSTWAR LOW



Notes: The chart shows net investment as a percent of net national product, less the mean ratio, 1946-1991. Net investment is gross domestic investment less economic depreciation plus net foreign investment. The vertical lines show official recessions.

Sources: Citibase; Heinemann Economic Research

THE LONG-TERM EROSION IN CORPORATE PROFITABILITY



Notes: The chart shows pretax corporate profits (IVA adjusted) as a percent of net worth, less the mean ratio, 1946-1990. Assets at historical cost. FRB national balance sheets and GNP accounts.

Sources: Citibase; Heinemann Economic Research

TABLE 1

ASSETS AND LIABILITES IN DOMESTIC OFFICES OF U.S. COMMERCIAL BANKS

(Billions of Dollars)

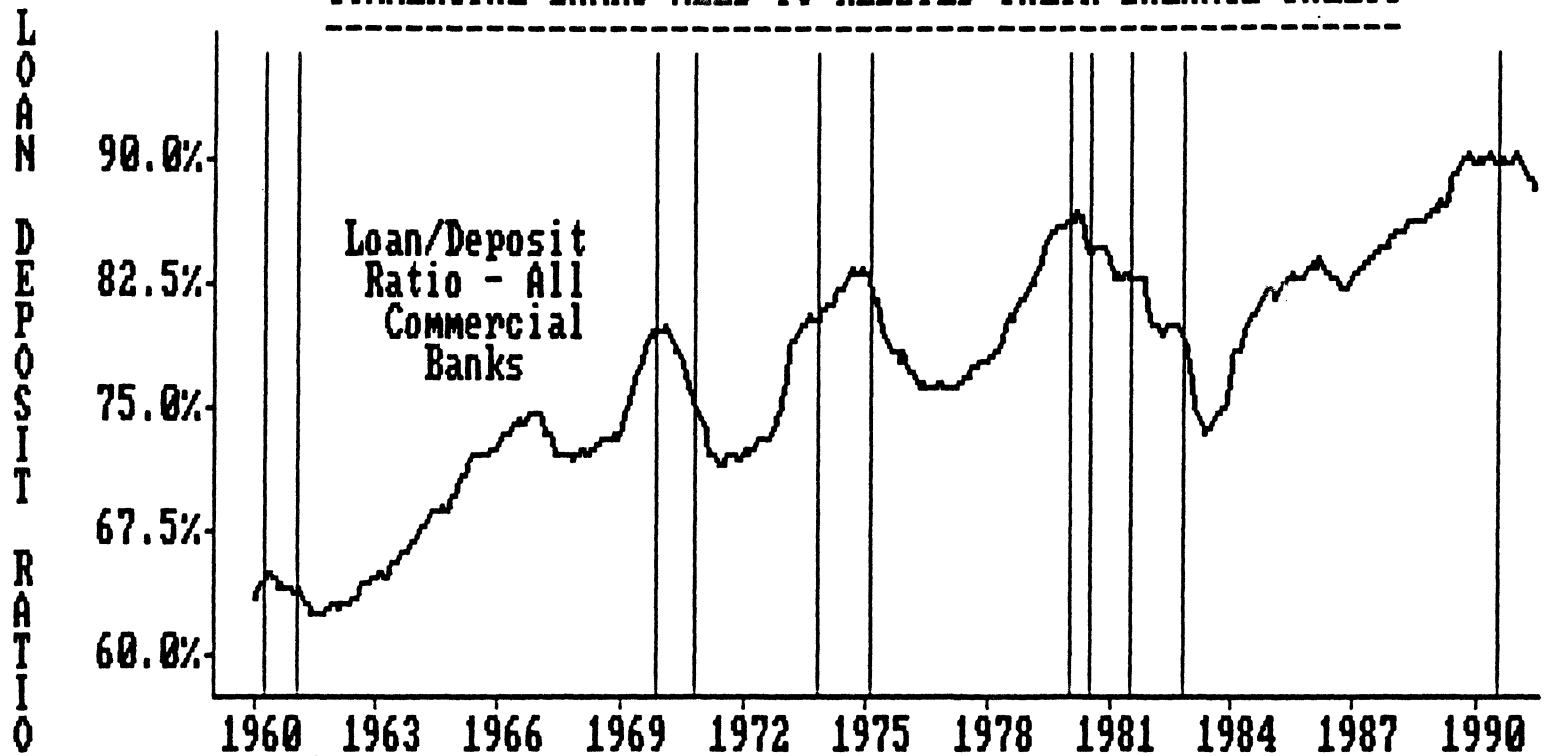
	ASSETS								LIABILITIES					
Date	U.S. Treasury Securities	State and Local Securities	Commercial and Industrial Loans	Real Estate Loans	Consumer Loans	Other Loans	Total Loans and Leases	Total Loans and Securities	Transaction Accounts	Consumer Time Accounts	Business Time Accounts	Nondeposit Liabilities	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	965.9	344.4	226.9	2107.2	86.00
Aug	350.9	196.9	596.8	641.7	347.7	241.1	1827.3	2375.1	569.4	968.4	351.2	233.2	2122.2	86.10
Sep	353.7	194.9	597.5	648.5	350.3	233.5	1829.8	2378.3	567.9	972.1	356.8	228.4	2125.2	86.10
Oct	355.6	194.6	600.9	658.8	351.1	231.1	1841.9	2392.1	567.8	978.1	361.6	227.2	2134.7	86.28
Nov	357.8	194.6	603.8	665.0	352.3	234.3	1855.4	2407.8	567.3	986.5	363.3	230.2	2147.3	86.41
Dec	361.5	192.2	607.0	671.9	354.9	234.6	1868.4	2422.1	567.0	989.7	368.0	229.8	2154.5	86.72
Jan 1989	361.9	190.7	606.0	676.5	356.6	226.9	1866.0	2418.6	565.3	993.4	372.4	227.7	2158.8	86.44
Feb	362.7	190.1	617.3	684.0	357.9	233.3	1892.5	2445.4	564.2	998.7	378.7	227.8	2169.4	87.24
Mar	368.7	189.6	619.2	690.3	359.5	234.8	1903.8	2462.2	562.2	1005.2	385.3	233.8	2186.5	87.07
Apr	370.3	188.4	621.6	698.9	361.7	227.6	1909.8	2468.6	558.3	1011.8	391.3	222.8	2184.2	87.44
May	372.7	188.0	626.7	705.7	364.0	225.3	1921.7	2482.4	552.8	1013.8	393.7	219.0	2179.3	88.18
Jun	373.7	187.5	627.0	712.6	364.5	229.9	1934.0	2495.2	549.6	1016.5	394.2	217.1	2177.4	88.82
Jul	374.3	186.6	631.6	721.0	366.0	234.2	1952.8	2513.7	554.0	1024.4	395.8	217.7	2191.9	89.09
Aug	376.2	184.2	636.1	730.0	367.9	237.4	1971.4	2531.7	554.0	1033.5	396.4	214.2	2198.1	89.69
Sep	379.3	183.6	638.2	739.1	370.8	235.2	1983.3	2546.2	555.4	1041.3	397.5	209.7	2203.9	89.99
Oct	390.9	181.4	642.0	746.7	372.4	237.1	1998.2	2570.5	560.6	1050.7	399.6	205.5	2216.4	90.16
Nov	396.0	179.9	645.0	754.0	374.4	236.5	2009.9	2585.8	561.0	1063.6	401.6	205.7	2231.9	90.05
Dec	396.1	180.8	641.6	761.1	375.8	233.4	2011.9	2588.8	563.9	1072.1	401.9	205.4	2243.3	89.68
Jan 1990	404.7	180.4	637.9	765.9	378.3	227.2	2009.3	2594.4	563.4	1077.7	401.1	203.6	2245.8	89.47
Feb	413.8	180.6	640.3	774.9	379.2	226.3	2020.7	2615.1	566.9	1086.4	400.4	202.4	2256.1	89.57
Mar	420.3	180.4	643.5	782.7	379.4	226.9	2032.5	2633.2	568.7	1093.7	399.2	198.7	2260.3	89.92
Apr	426.4	180.2	645.9	790.8	377.8	227.0	2041.5	2648.1	569.8	1101.1	396.8	194.2	2261.9	90.26
May	430.3	178.2	644.3	798.9	378.4	225.3	2046.9	2655.4	567.8	1112.2	397.5	200.4	2277.9	89.86
Jun	438.4	177.5	645.3	805.9	377.6	225.4	2054.2	2670.1	570.0	1127.4	397.7	200.2	2295.3	89.50
Jul	442.8	177.3	644.4	814.5	376.4	227.6	2062.9	2683.0	567.3	1138.6	398.7	202.6	2307.2	89.41
Aug	445.7	178.8	645.1	818.0	378.2	239.1	2080.4	2704.9	570.1	1145.5	395.8	206.5	2317.9	89.75
Sep	450.1	178.8	644.7	822.5	378.6	233.2	2079.0	2708.0	572.1	1152.0	390.9	203.1	2318.1	89.69
Oct	453.1	177.8	643.7	827.7	379.7	231.6	2082.7	2713.6	568.9	1162.5	386.8	204.4	2322.6	89.67
Nov	454.0	175.9	646.5	832.0	378.7	229.5	2086.7	2716.6	570.0	1165.1	387.4	199.9	2322.4	89.85
Dec	454.2	175.6	648.1	836.5	378.9	230.3	2093.8	2723.6	570.7	1175.9	386.1	193.0	2325.7	90.03
Jan 1991	454.1	177.7	644.3	837.3	375.9	231.9	2089.4	2721.2	566.8	1180.7	394.0	189.7	2331.2	89.63
Feb	458.0	177.6	643.9	842.6	377.7	235.3	2099.5	2735.1	573.0	1191.9	401.1	189.8	2355.8	89.12
Mar	471.4	177.6	646.0	846.3	375.5	234.2	2102.0	2750.9	578.1	1202.5	399.9	186.3	2366.8	88.81
Apr	479.2	175.7	640.0	850.7	374.1	231.9	2096.7	2751.6	577.7	1206.8	398.5	184.0	2367.0	88.58
May	484.9	173.9	633.2	854.7	373.4	229.8	2091.1	2750.0	586.8	1212.5	399.3	179.1	2377.7	87.95
Jun	492.9	173.1	629.7	857.7	371.7	233.0	2092.1	2758.1	593.0	1221.3	398.2	177.6	2390.1	87.53
Jul	502.9	172.2	626.3	854.9	369.4	233.0	2083.6	2758.7	593.1	1226.6	394.0	174.6	2388.3	87.24

TABLE 2

Date	Securities Percent of Earning Assets	C&I Loans Percent of Earning Assets	RE Loans Percent of Earning Assets	Consumer Loans Percent of Earning Assets
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	22.85	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	14.49
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	22.73	24.48	29.63	14.50
Mar	22.81	24.44	29.72	14.41
Apr	22.91	24.39	29.86	14.27
May	22.92	24.26	30.09	14.25
Jun	23.07	24.17	30.18	14.14
Jul	23.11	24.02	30.36	14.03
Aug	23.09	23.85	30.24	13.98
Sep	23.22	23.81	30.37	13.98
Oct	23.25	23.72	30.50	13.99
Nov	23.19	23.80	30.63	13.94
Dec	23.12	23.80	30.71	13.91
Jan 1991	23.22	23.68	30.77	13.81
Feb	23.24	23.54	30.81	13.81
Mar	23.59	23.48	30.76	13.65
Apr	23.80	23.26	30.92	13.60
May	23.96	23.03	31.08	13.58
Jun	24.15	22.83	31.10	13.48
Jul	24.47	22.70	30.99	13.39

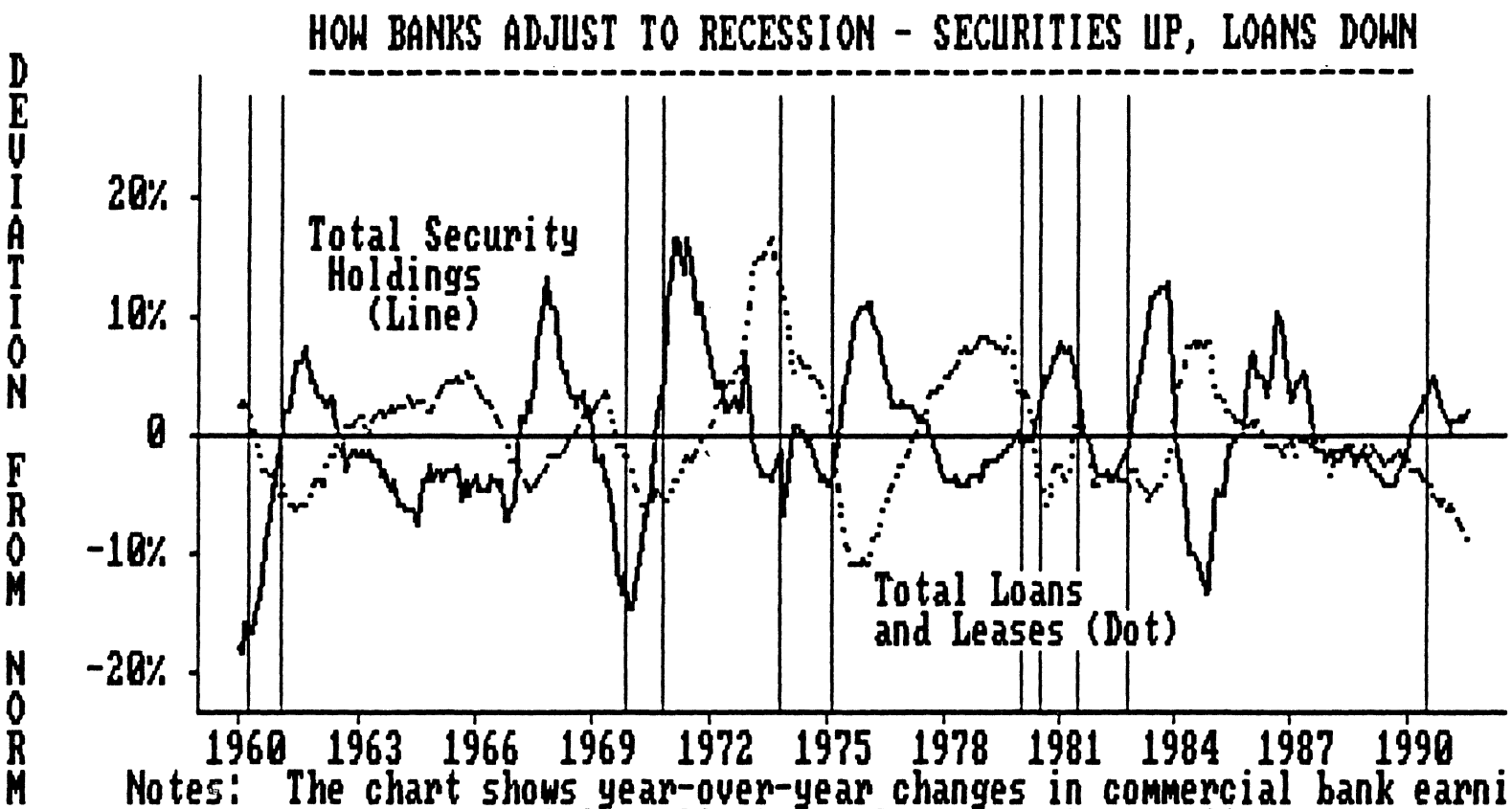
Sources: Citibase; Heinemann Economic Research

COMMERCIAL BANKS NEED TO REBUILD THEIR BALANCE SHEETS



Notes: The chart shows the ratio of total loans and leases held by domestic offices of all commercial banks to deposit and non-deposit liabilities, net of uncollected cash items. Seasonally adjusted. The vertical lines show official periods of recession.

Sources: Citibase; Heinemann Economic Research



Notes: The chart shows year-over-year changes in commercial bank earning assets: securities (line) and loans and leases (dot) less their mean changes, 1960-1991 (respectively, 6.9% and 10.0%). The vertical lines show official periods of recession.

Sources: Citibase; Heinemann Economic Research

Table 1

SOURCES AND USES OF FUNDS - 1988-1991

Seasonally Adjusted Annual Rates
($ Billions)

	QII'89	QIII'89	QIV'89	QI'90	QII'90	QIII'90	QIV'90	QI'91	QII'91P	1988	1989	1990
TOTAL SOURCES:	$814.0	$833.1	$824.3	$995.6	$808.5	$867.4	$788.0	$564.8	$505.0	$1,014.8	$894.7	$864.8
Domestic	818.9	700.7	780.1	992.6	748.7	795.1	710.1	532.4	447.3	917.2	822.6	811.6
Private Sectors	791.2	631.2	620.5	744.0	521.5	504.3	590.3	255.8	260.4	799.9	708.1	590.1
Financial	600.9	354.0	561.9	444.8	266.4	366.7	500.4	185.8	91.6	562.3	511.1	394.6
Commercial Banks	160.9	183.7	184.3	184.1	132.1	101.7	56.9	134.2	15.7	156.3	177.3	118.7
Nonbank Financial	440.0	170.3	377.6	260.7	134.3	265.0	443.5	51.6	75.9	406.0	333.8	275.9
Nonfinancial	190.3	277.2	58.6	299.2	255.1	137.6	89.9	70.0	168.8	237.6	197.0	195.5
Corporations	26.7	20.2	-22.1	25.0	21.2	10.7	-11.6	40.8	15.4	-12.5	2.2	11.3
Households	163.5	259.0	82.3	275.6	235.0	127.7	101.9	31.5	154.9	250.8	196.0	185.1
Other	0.1	-2.0	-1.6	-1.4	-1.1	-0.8	-0.4	-2.3	-1.5	-0.7	-1.2	-0.9
Public Sectors	27.7	69.5	159.6	248.6	227.2	290.8	119.8	276.6	186.9	117.3	114.5	221.5
United States Government	-6.0	-9.3	5.7	37.7	36.2	63.3	-2.7	30.3	32.1	-9.4	-2.4	33.6
Federal Agencies	-78.3	14.8	-2.7	25.4	-3.8	48.7	-4.8	17.5	-24.0	37.1	-0.5	16.4
Mortgage Pools	106.3	111.6	161.1	162.0	166.8	116.9	155.5	141.3	173.0	74.9	125.8	150.3
Federal Reserve	-1.6	-31.2	-4.6	-6.3	40.4	24.4	-25.9	53.3	12.2	10.5	-7.3	8.1
State and Local Governments	7.3	-16.4	0.1	29.8	-12.4	37.5	-2.3	34.2	-6.4	4.2	-1.1	13.1
Foreign	-4.9	132.4	44.2	3.0	59.8	72.3	77.9	32.4	57.7	97.6	72.1	53.2
TOTAL USES:	$813.9	$833.0	$824.4	$995.8	$808.4	$867.4	$788.1	$564.7	$504.9	$1,014.6	$894.5	$865.0
Domestic	820.8	802.6	807.5	993.8	767.2	837.7	767.0	514.1	557.9	1008.3	883.6	841.5
Private Sectors	558.6	475.3	449.6	558.8	337.9	384.3	256.5	141.4	148.7	685.4	551.4	384.5
Financial	25.3	-0.9	30.8	18.7	-13.6	40.9	93.2	-53.2	-55.3	127.7	54.5	34.8
Commercial Banks	5.4	20.0	-4.6	-13.7	-46.0	-46.0	-9.3	-40.5	-23.7	2.2	4.8	-28.8
Nonbank Financial	19.9	-20.9	35.4	32.4	32.4	86.9	102.5	-12.7	-31.6	125.5	49.7	63.6
Nonfinancial	533.3	476.2	418.8	540.1	351.5	343.4	163.3	194.6	204.0	557.7	496.9	349.7
Households	264.0	290.8	291.8	377.2	257.5	227.3	154.0	162.6	199.7	314.9	285.0	254.0
Corporations	217.4	147.3	83.1	111.2	101.3	84.8	20.2	46.0	9.5	184.6	159.5	79.4
Agriculture and Other	51.9	38.1	43.9	51.7	-7.3	31.3	-10.9	-14.0	-5.2	58.2	52.4	16.3
Public Sectors	262.2	327.3	357.9	435.0	429.3	453.4	510.5	372.7	409.2	322.9	332.2	457.0
United States Government	100.1	173.9	185.0	247.3	228.2	286.1	328.4	204.7	241.8	157.5	151.6	272.5
Federal Agencies	22.5	13.2	-4.7	9.7	17.1	22.3	19.0	14.5	-22.4	44.9	25.2	17.0
Mortgage Pools	106.3	111.6	161.1	162.0	166.8	116.9	155.5	141.3	173.0	74.9	125.8	150.3
State and Local Governments	33.3	28.6	16.5	16.0	17.2	28.1	7.6	12.2	16.8	45.6	29.6	17.2
Foreign	-6.9	30.4	16.9	2.0	41.2	29.7	21.1	50.6	-53.0	6.3	10.9	23.5
Memo: Net Sales of Common Stock*	-98.7	-146.3	-79.3	-69.0	-48.0	-74.0	-61.0	-12.0	11.0	-129.5	-124.2	-63.0

*By nonfinancial corporations. Discrepancies between sources and uses are due to rounding errors. QI'91 data are preliminary.
Sources: Federal Reserve Board; Heinemann Economic Research

Table 2

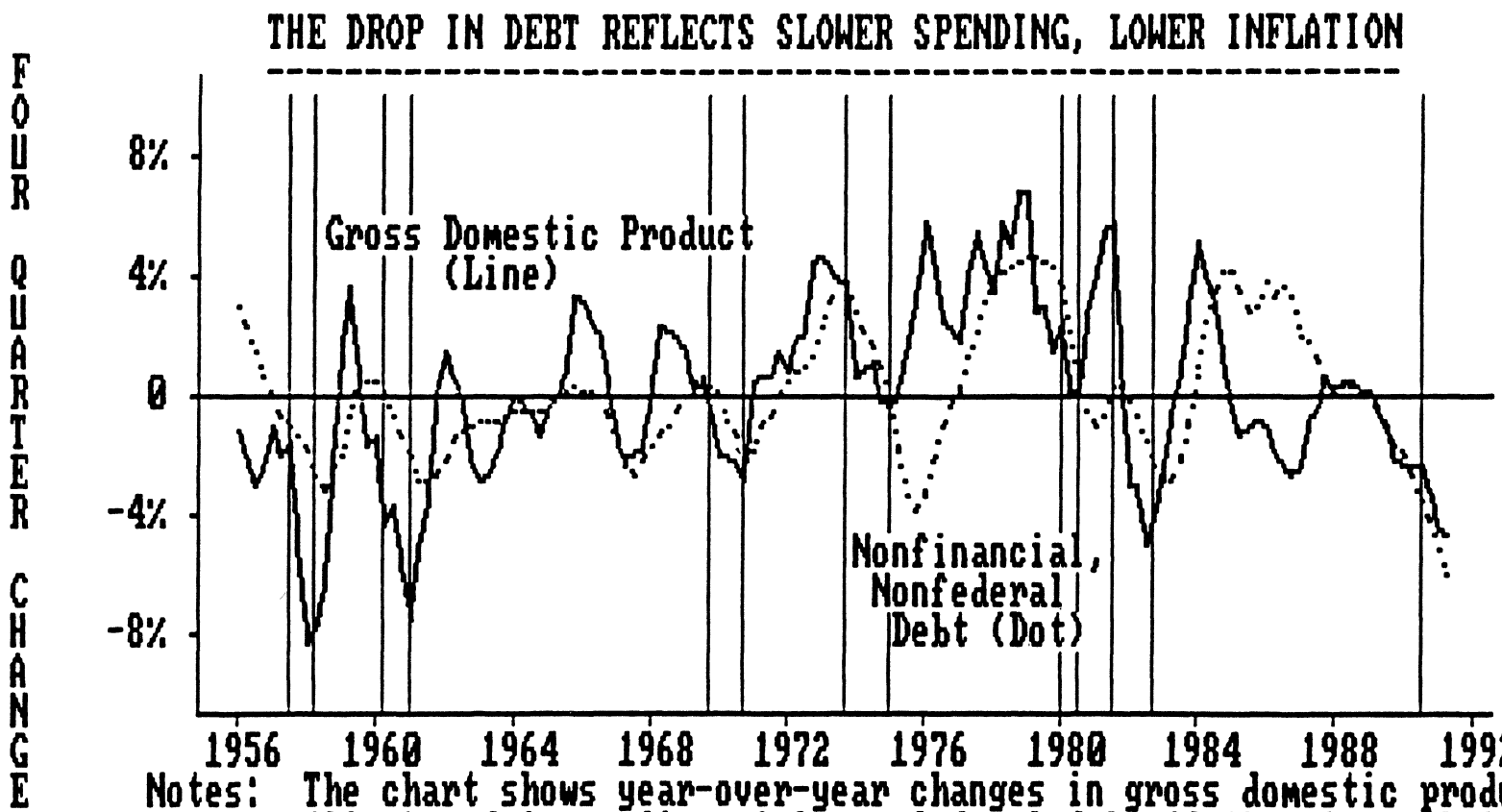
NET DEMAND FOR FUNDS - 1988-1991

Seasonally Adjusted Annual Rates
($ Billions)
(Positive Number Indicates Net Supply; Negative Number, Net Demand)

TOTAL NET LENDING - TOTAL NET BORROWING

SECTOR:	QII'89	QIII'89	QIV'89	QI'90	QII'90	QIII'90	QIV'90	QI'91	QII'91P	1988	1989	1990
Commercial Banks	$155.5	$163.7	$188.9	$197.8	$178.1	$147.7	$66.2	$174.7	$39.4	$154.1	$172.5	$147.5
Nonbank Financial	420.1	191.2	342.2	228.3	101.9	178.1	341.0	64.3	107.5	280.5	284.1	212.3
Households	-100.5	-31.8	-209.5	-101.6	-22.5	-99.6	-52.1	-131.1	-44.8	-64.1	-89.0	-68.9
Corporations	-190.7	-127.1	-105.2	-86.2	-80.1	-74.1	-31.8	-5.2	5.9	-197.1	-157.3	-68.1
United States Government	-106.1	-183.2	-179.3	-209.6	-192.0	-222.8	-331.1	-174.4	-209.7	-166.9	-154.0	-238.9
State and Local Governments	-26.0	-45.0	-16.4	13.8	-29.6	9.4	-9.9	22.0	-23.2	-41.4	-30.7	-4.1
Federal Agencies	-100.8	1.6	2.0	15.7	-20.9	26.4	-23.8	3.0	-1.6	-7.8	-25.7	-0.6
Federal Reserve	-1.6	-31.2	-4.6	-6.3	40.4	24.4	-25.9	53.3	12.2	10.5	-7.3	8.1
Other Sectors	-51.8	-40.1	-45.5	-53.1	6.2	-32.1	10.5	11.7	3.7	-58.9	-53.6	-17.2
Total Domestic	-1.9	-101.9	-27.4	-1.2	-18.5	-42.6	-56.9	18.3	-110.6	-91.1	-61.0	-29.9
Foreign	2.0	102.0	27.3	1.0	18.6	42.6	56.8	-18.2	110.7	91.3	61.2	29.7

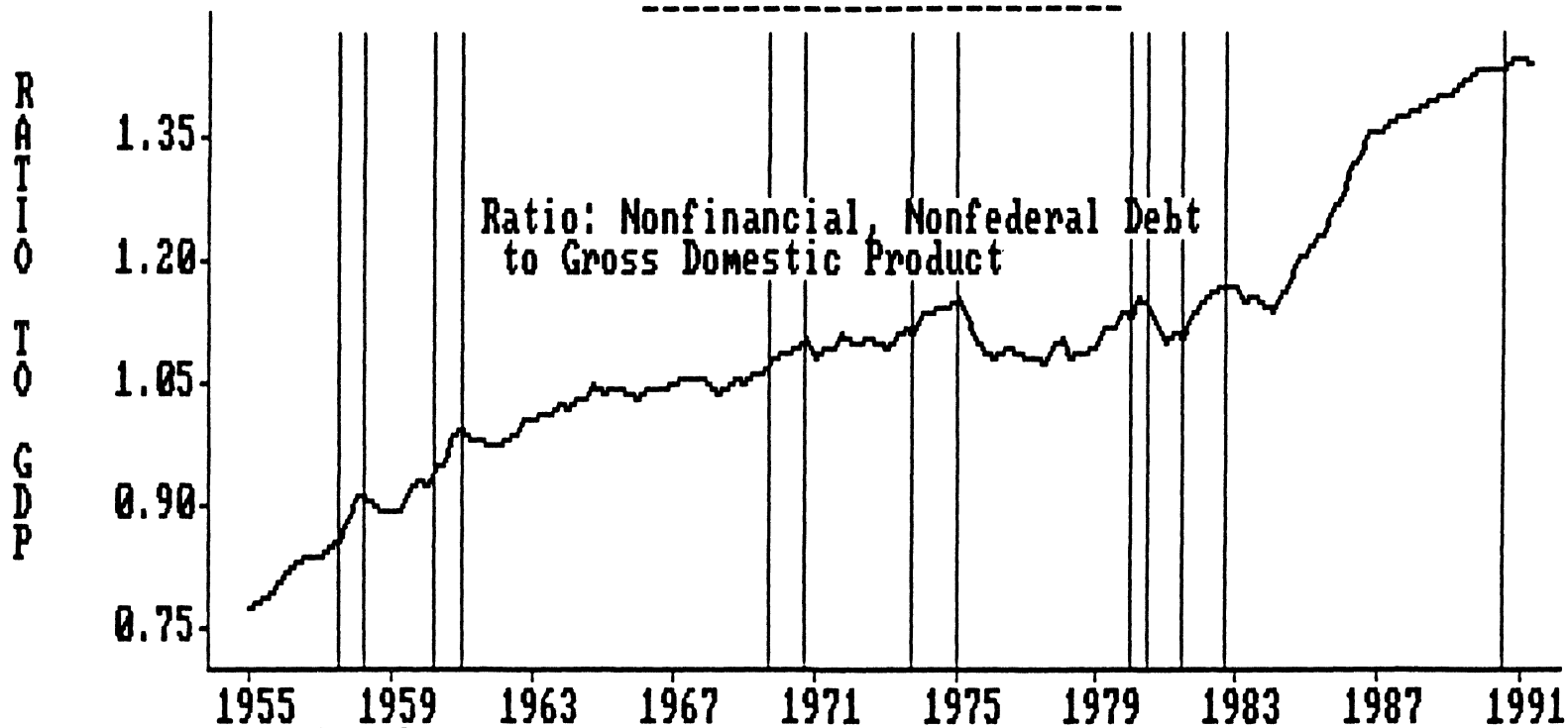
*By nonfinancial corporations. Discrepancies between domestic and foreign are due to rounding errors. QII'91 data are preliminary.
Sources: Federal Reserve Board; Heinemann Economic Research



Notes: The chart shows year-over-year changes in gross domestic product (line) and in nonfinancial, nonfederal debt (dot), minus their mean rates of change - respectively, 7.6% and 9.5%. In current dollars. The vertical lines show official recession periods.

Sources: Citibase; Heinemann Economic Research

LEVERAGE IS LEVELING OFF



Notes: The chart shows the ratio of total nonfinancial, nonfederal debt outstanding (quarterly averages of month figures) to gross domestic product. Data are in current dollars. The vertical lines show official periods of recession.

Sources: Citibase; Heinemann Economic Research

26-Sep-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**
Jan 1989	264.6	213.2	51.4	565.1	1959.6	546.7	310.1	11.1	25.0	3417.6
Feb	265.2	214.1	51.1	565.1	1960.7	553.3	310.1	11.2	25.9	3426.3
Mar	266.2	215.3	50.9	563.0	1964.2	560.1	316.6	10.5	18.1	3432.5
Apr	266.5	215.7	50.8	559.2	1969.3	568.3	305.0	10.5	20.2	3432.5
May	267.1	216.6	50.5	552.4	1971.6	573.1	302.5	10.5	34.3	3444.4
Jun	267.6	217.2	50.4	549.3	1978.4	574.9	301.4	11.7	26.2	3441.9
Jul	268.6	217.8	50.8	554.1	1989.7	574.7	296.9	11.7	23.0	3450.1
Aug	269.1	218.7	50.4	554.0	2001.9	571.2	286.4	10.5	15.8	3439.8
Sep	270.0	219.2	50.8	555.4	2009.5	568.1	275.5	11.0	24.9	3444.4
Oct	271.3	220.0	51.3	560.6	2017.6	566.2	266.5	11.5	20.7	3443.1
Nov	272.0	220.5	51.5	561.0	2028.1	565.3	264.5	10.8	14.7	3444.4
Dec	274.2	222.2	52.0	563.9	2036.1	563.5	257.0	11.1	19.6	3451.2
Jan 1990	276.5	224.5	52.0	563.4	2040.7	560.0	252.9	11.3	23.2	3451.5
Feb	278.7	226.6	52.1	566.9	2047.3	554.9	251.2	10.6	22.0	3452.9
Mar	280.6	228.4	52.2	568.7	2055.6	549.3	247.0	10.6	16.7	3448.1
Apr	282.6	230.3	52.3	569.6	2063.0	543.7	242.9	10.7	20.0	3450.1
May	284.0	231.9	52.1	567.8	2065.3	540.5	249.6	11.1	25.2	3459.5
Jun	285.6	233.7	52.1	570.0	2068.7	536.0	249.0	10.6	20.9	3457.2
Jul	287.4	235.7	51.7	567.3	2072.9	535.0	249.3	10.5	15.3	3450.3
Aug	290.5	238.4	52.1	570.1	2076.9	529.2	253.0	11.0	23.5	3463.7
Sep	293.8	241.5	52.3	572.1	2079.8	521.9	249.7	11.3	31.0	3465.8
Oct	295.9	243.9	52.0	568.9	2079.8	515.1	249.3	10.5	21.0	3444.4
Nov	297.6	245.0	52.6	570.0	2079.7	512.5	243.4	10.3	19.1	3435.0
Dec	299.8	246.4	53.4	570.7	2080.9	507.1	235.7	10.2	23.1	3427.7
Jan 1991	305.2	251.8	53.8	566.8	2081.1	511.9	231.4	10.7	29.4	3431.3
Feb	309.4	255.1	54.3	573.0	2089.8	516.0	229.8	9.7	39.3	3457.2
Mar	311.0	256.7	54.3	576.1	2098.0	511.5	223.5	9.5	28.4	3449.0
Apr	310.8	256.8	54.0	577.7	2104.0	507.3	220.1	10.0	20.3	3439.4
May	311.5	256.8	54.7	586.8	2109.7	503.9	214.9	9.7	19.8	3444.8
Jun	312.5	257.6	54.9	593.0	2110.1	498.8	211.4	9.1	23.6	3446.0
Jul	313.9	258.9	55.0	593.1	2108.7	491.1	208.3	9.6	20.8	3431.6
Aug	316.3	260.7	55.6	597.9	2106.4	484.3	209.8	9.8	17.1	3425.1
Sep PE	317.2	261.5	55.7	599.1	2106.8	478.4	208.6	9.5	16.7	3419.1

* Includes Money Market Deposit Accounts

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

Table 1 - Part 2

Federal Reserve Action and Monetary Growth

Date	(11) Adjusted Reserve Ratio (3/10)	(12) Currency Ratio (2/4)	(13) Savings & Small Time Deposit Ratio (5/4)	(14) Large Time Deposit Ratio (6/4)	(15) Non-deposit Liabil. Ratio (7/4)	(16) Foreign Deposit Ratio (8/4)	(17) Treasury Deposit Ratio (9/4)	(18) Money Multi-plier (2+4/1)
Jan 1989	0.0150	0.3773	3.4677	0.9674	0.5468	0.0196	0.0442	2.9414
Feb	0.0149	0.3789	3.4697	0.9791	0.5488	0.0198	0.0458	2.9378
Mar	0.0148	0.3824	3.4888	0.9948	0.5623	0.0187	0.0321	2.9240
Apr	0.0148	0.3857	3.5216	1.0163	0.5454	0.0188	0.0361	2.9074
May	0.0147	0.3921	3.5692	1.0375	0.5476	0.0190	0.0621	2.8792
Jun	0.0147	0.3954	3.6017	1.0466	0.5487	0.0213	0.0477	2.8640
Jul	0.0147	0.3931	3.5909	1.0372	0.5358	0.0211	0.0415	2.8743
Aug	0.0147	0.3948	3.6135	1.0310	0.5170	0.0190	0.0285	2.8710
Sep	0.0148	0.3947	3.6181	1.0229	0.4960	0.0198	0.0448	2.8686
Oct	0.0149	0.3924	3.5990	1.0100	0.4754	0.0205	0.0369	2.8772
Nov	0.0149	0.3930	3.6152	1.0077	0.4715	0.0193	0.0262	2.8732
Dec	0.0151	0.3940	3.6107	0.9993	0.4558	0.0197	0.0348	2.8672
Jan 1990	0.0151	0.3985	3.6221	0.9940	0.4489	0.0201	0.0412	2.8495
Feb	0.0151	0.3997	3.6114	0.9788	0.4431	0.0187	0.0388	2.8476
Mar	0.0151	0.4016	3.6149	0.9659	0.4343	0.0186	0.0294	2.8406
Apr	0.0152	0.4042	3.6206	0.9542	0.4263	0.0188	0.0351	2.8309
May	0.0151	0.4084	3.6374	0.9519	0.4396	0.0195	0.0444	2.8161
Jun	0.0151	0.4100	3.6293	0.9439	0.4368	0.0186	0.0367	2.8125
Jul	0.0150	0.4155	3.6540	0.9431	0.4395	0.0185	0.0270	2.7938
Aug	0.0150	0.4182	3.6430	0.9283	0.4438	0.0193	0.0412	2.7835
Sep	0.0151	0.4221	3.6354	0.9123	0.4365	0.0198	0.0542	2.7692
Oct	0.0151	0.4287	3.6555	0.9054	0.4382	0.0185	0.0369	2.7465
Nov	0.0153	0.4298	3.6486	0.8991	0.4270	0.0181	0.0335	2.7390
Dec	0.0156	0.4318	3.6462	0.8886	0.4130	0.0179	0.0405	2.7256
Jan 1991	0.0156	0.4439	3.6717	0.9031	0.4083	0.0189	0.0519	2.6819
Feb	0.0157	0.4452	3.6468	0.9005	0.4007	0.0169	0.0686	2.6761
Mar	0.0157	0.4440	3.6291	0.8848	0.3886	0.0164	0.0491	2.6844
Apr	0.0157	0.4442	3.6420	0.8781	0.3810	0.0173	0.0351	2.6860
May	0.0159	0.4378	3.5953	0.8587	0.3662	0.0165	0.0337	2.7084
Jun	0.0159	0.4344	3.5583	0.8411	0.3565	0.0153	0.0398	2.7222
Jul	0.0160	0.4365	3.5554	0.8280	0.3512	0.0162	0.0351	2.7142
Aug	0.0162	0.4360	3.5230	0.8100	0.3509	0.0161	0.0286	2.7145
Sep PE	0.0163	0.4365	3.5166	0.7984	0.3481	0.0159	0.0279	2.7132

Table 2

Federal Reserve Action and Monetary Growth

(Compound Annual Rates of Change)

Date	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	This is accounted for by changes in the: Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jan 1989	-2.73	5.31	-8.05	1.52	-7.90	-0.83	-0.83	-0.05	0.02	-0.16
Feb	1.40	2.90	-1.51	1.93	-2.81	-0.08	-0.48	0.00	-0.01	-0.07
Mar	-1.38	4.38	-5.76	1.64	-6.06	-0.76	-0.83	-0.54	0.05	0.55
Apr	-5.12	1.60	-6.72	0.22	-5.38	-1.23	-0.81	0.64	0.00	-0.15
May	-8.76	2.53	-11.30	2.40	-10.05	-1.78	-0.80	-0.08	-0.01	-0.98
Jun	-3.83	2.49	-6.32	0.07	-5.27	-1.20	-0.34	-0.04	-0.08	0.53
Jul	8.79	4.21	4.58	-0.94	4.02	0.41	0.36	0.49	0.01	0.23
Aug	1.25	2.64	-1.39	0.76	-2.85	-0.87	0.24	0.73	0.08	0.50
Sep	2.99	4.01	-1.02	-1.46	0.16	-0.17	0.31	0.60	-0.03	-0.62
Oct	9.70	5.83	3.87	-2.28	3.86	0.73	0.49	0.79	-0.03	0.30
Nov	1.39	3.10	-1.71	-0.78	-1.01	-0.81	0.09	0.15	0.05	0.41
Dec	7.30	10.03	-2.73	-1.78	-1.75	0.18	0.34	0.64	-0.02	-0.35
Jan 1990	2.78	10.74	-7.95	-0.17	-7.54	-0.47	0.22	0.28	-0.02	-0.26
Feb	8.87	9.72	-0.85	-0.12	-2.20	0.45	0.63	0.24	0.06	0.10
Mar	5.58	8.77	-3.19	-1.08	-3.23	-0.14	0.52	0.35	0.00	0.38
Apr	4.61	8.96	-4.35	-0.39	-4.29	-0.23	0.47	0.32	-0.01	-0.23
May	-0.60	5.85	-6.45	1.81	-6.79	-0.65	0.09	-0.52	-0.03	-0.36
Jun	6.17	7.82	-1.65	-0.10	-2.64	0.32	0.32	0.11	0.04	0.30
Jul	-1.04	7.20	-8.24	1.07	-8.66	-0.95	0.03	-0.10	0.00	0.38
Aug	8.54	13.46	-4.92	-0.65	-4.53	0.44	0.60	-0.17	-0.03	-0.57
Sep	7.64	14.73	-6.89	-0.99	-6.61	0.31	0.65	0.30	-0.02	-0.52
Oct	-1.17	9.09	-10.26	-0.27	-10.14	-0.77	0.26	-0.07	0.05	0.67
Nov	3.30	6.74	-3.44	-2.78	-1.71	0.26	0.23	0.42	0.01	0.13
Dec	3.14	9.38	-6.25	-4.02	-3.00	0.09	0.40	0.54	0.01	-0.27
Jan 1991	1.93	23.73	-21.80	-0.53	-19.23	-1.09	-0.63	0.20	0.04	-0.49
	15.19	18.22	-3.03	-1.74	-2.14	1.03	0.11	0.31	0.08	-0.69
	10.15	6.15	4.00	-0.30	1.76	0.67	0.59	0.53	0.02	0.73
	-0.72	-1.45	0.73	0.48	-0.18	-0.44	0.23	0.19	-0.03	0.48
May	14.23	3.43	10.80	-2.33	10.09	1.72	0.71	0.54	0.03	0.05
Jun	10.42	3.88	6.54	-0.69	4.98	1.40	0.66	0.37	0.04	-0.23
Jul	1.99	5.68	-3.68	-1.48	-3.17	0.11	0.50	0.20	-0.03	0.18
Aug	9.70	9.51	0.19	-2.24	0.62	1.03	0.57	0.01	0.00	0.20
Sep PE	2.87	3.50	-0.63	-0.71	-0.75	0.25	0.44	0.11	0.01	0.03
	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
	0.92	4.09	-3.17	0.11	-2.92	-0.52	-0.15	0.29	0.00	0.02
	1990	1990	1990	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH
	4.00	9.37	-5.37	-0.64	-5.11	-0.11	0.37	0.14	0.01	-0.02
1991 -IH	8.53	9.00	-0.46	1991 -IH -0.85	1991 -IH -0.79	1991 -IH 0.55	1991 -IH 0.28	1991 -IH 0.36	1991 -IH 0.02	1991 -IH -0.02
1991 -IIH	4.85	6.23	-1.37	1991 -IIH -1.48	1991 -IIH -1.10	1991 -IIH 0.46	1991 -IIH 0.51	1991 -IIH 0.11	1991 -IIH -0.01	1991 -IIH 0.14
	-3.68	-2.77	-0.91	-0.63	-0.31	-0.08	0.23	-0.25	-0.02	0.16
	4.39	-1.45	5.84	-0.06	4.89	0.75	0.03	0.14	0.00	0.08

Table 3

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

THREE-MONTH MOVING AVERAGES

Date	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	This is accounted for by changes in the: Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jan 1989	0.33	5.44	-5.11	0.54	-4.72	-0.52	-0.33	-0.14	-0.01	0.06
Feb	0.39	4.60	-4.21	1.37	-4.53	-0.32	-0.45	-0.03	-0.01	-0.24
Mar	-0.90	4.20	-5.10	1.69	-5.59	-0.58	-0.58	-0.20	0.02	0.11
Apr	-1.70	2.96	-4.66	1.26	-4.75	-0.69	-0.64	0.03	0.01	0.11
May	-5.09	2.84	-7.92	1.42	-7.16	-1.26	-0.75	0.01	0.01	-0.19
Jun	-5.90	2.21	-8.11	0.90	-6.90	-1.40	-0.65	0.17	-0.03	-0.20
Jul	-1.27	3.08	-4.35	0.51	-3.76	-0.86	-0.26	0.12	-0.03	-0.07
Aug	2.07	3.11	-1.04	-0.03	-1.36	-0.55	0.09	0.39	0.00	0.42
Sep	4.34	3.62	0.72	-0.54	0.45	-0.21	0.30	0.67	0.02	0.04
Oct	4.65	4.16	0.49	-0.99	0.39	-0.10	0.35	0.77	0.01	0.06
Nov	4.69	4.31	0.38	-1.51	1.00	-0.02	0.30	0.58	0.00	0.03
Dec	6.13	6.32	-0.19	-1.62	0.37	0.10	0.31	0.53	0.00	0.12
Jan 1990	3.82	7.96	-4.13	-0.91	-3.43	-0.30	0.22	0.36	0.01	-0.07
Feb	6.32	10.16	-3.84	-0.69	-3.83	0.05	0.40	0.39	0.01	-0.17
Mar	5.75	9.74	-4.00	-0.45	-4.32	-0.05	0.46	0.29	0.01	0.07
Apr	6.35	9.15	-2.80	-0.53	-3.24	0.03	0.54	0.31	0.02	0.08
May	3.20	7.66	-4.66	0.12	-4.77	-0.34	0.36	0.05	-0.01	-0.07
Jun	3.39	7.55	-4.15	0.44	-4.57	-0.19	0.29	-0.03	0.00	-0.10
Jul	1.51	6.96	-5.45	0.93	-6.03	-0.43	0.15	-0.17	0.00	0.11
Aug	4.56	9.49	-4.94	0.10	-5.28	-0.06	0.32	-0.06	0.00	0.04
Sep	5.11	11.79	-6.68	-0.19	-6.60	-0.07	0.43	0.01	-0.02	-0.24
Oct	5.07	12.43	-7.36	-0.64	-7.09	-0.01	0.50	0.02	0.00	-0.14
Nov	3.32	10.19	-6.86	-1.35	-6.15	-0.07	0.38	0.22	0.02	0.09
Dec	1.75	8.40	-6.65	-2.36	-4.95	-0.14	0.30	0.29	0.02	0.18
Jan 1991	2.79	13.28	-10.50	-2.44	-7.98	-0.25	0.00	0.39	-0.01	-0.21
Feb	6.75	17.11	-10.36	-2.10	-8.12	0.01	-0.04	0.35	0.01	-0.48
Mar	9.09	16.03	-6.95	-0.86	-6.53	0.20	0.02	0.35	0.02	-0.15
Apr	8.21	7.64	0.57	-0.52	-0.19	0.42	0.31	0.35	0.02	0.18
May	7.89	2.71	5.18	-0.72	3.89	0.65	0.51	0.42	0.01	0.42
Jun	7.98	1.96	6.02	-0.85	4.96	0.89	0.53	0.37	0.01	0.10
Jul	8.86	4.33	4.55	-1.50	3.97	1.08	0.63	0.37	0.01	0.00
Aug	7.37	6.36	1.02	-1.47	0.81	0.85	0.58	0.19	0.01	0.05
Sep PE	4.85	6.23	-1.37	-1.48	-1.10	0.46	0.51	0.11	-0.01	0.14

Table 4

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

Date	Reserve Growth Rate Month to Month	(Memo) Reserve Growth Rate Three-month Moving Average
Jan 1989	-5.90	-0.03
Feb	-6.08	-3.30
Mar	-5.73	-5.90
Apr	-1.13	-4.31
May	-7.83	-4.90
Jun	-1.23	-3.39
Jul	7.94	-0.37
Aug	-7.24	-0.18
Sep	9.50	3.40
Oct	11.89	4.72
Nov	4.58	8.66
Dec	11.65	9.37
Jan 1990	0.93	5.72
Feb	1.04	4.54
Mar	3.75	1.91
Apr	2.65	2.48
May	-5.74	0.22
Jun	-0.28	-1.12
Jul	-7.56	-4.53
Aug	8.18	0.11
Sep	5.80	2.14
Oct	-5.85	2.71
Nov	12.47	4.14
Dec	20.74	9.12
Jan 1991	3.82	12.34
Feb	19.11	14.56
Mar	-1.23	7.23
Apr	-5.95	3.97
May	16.05	2.95
Jun	4.25	4.78
Jul	3.13	7.81
Aug	13.56	6.98
Sep PE	1.80	6.16
	1989	
	0.87	
	1990	
	3.01	
	1991 -IH	
	6.01	
	1991 -IIH	
	6.16	
	0.16	

Source: Federal Reserve Board; Heinemann Economic Research

26-Sep-91 Table 1 - Part 1 (Federal Reserve Bank of St. Louis 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**
Jan 1989	286.8	213.2	73.6	565.1	1959.6	546.7	310.1	11.1	25.0	3417.6
Feb	287.5	214.1	73.4	565.1	1960.7	553.3	310.1	11.2	25.9	3426.3
Mar	289.3	215.3	74.0	563.0	1964.2	560.1	316.6	10.5	18.1	3432.5
Apr	288.4	215.7	72.7	559.2	1969.3	568.3	305.0	10.5	20.2	3432.5
May	289.0	216.6	72.4	552.4	1971.6	573.1	302.5	10.5	34.3	3444.4
Jun	289.8	217.2	72.6	549.3	1978.4	574.9	301.4	11.7	26.2	3441.9
Jul	290.2	217.8	72.4	554.1	1989.7	574.7	296.9	11.7	23.0	3450.1
Aug	290.9	218.7	72.2	554.0	2001.9	571.2	288.4	10.5	15.8	3439.8
Sep	292.1	219.2	72.9	555.4	2009.5	568.1	275.5	11.0	24.9	3444.4
Oct	293.2	220.0	73.2	560.6	2017.8	566.2	268.5	11.5	20.7	3443.1
Nov	294.2	220.5	73.7	561.0	2028.1	565.3	264.5	10.8	14.7	3444.4
Dec	296.1	222.2	73.9	563.9	2036.1	563.5	257.0	11.1	19.6	3451.2
Jan 1990	297.9	224.5	73.4	563.4	2040.7	560.0	252.9	11.3	23.2	3451.5
Feb	300.1	226.6	73.5	566.9	2047.3	554.9	251.2	10.6	22.0	3452.9
Mar	303.4	228.4	75.0	568.7	2055.6	549.3	247.0	10.6	16.7	3448.1
Apr	304.6	230.3	74.3	569.8	2063.0	543.7	242.9	10.7	20.0	3450.1
May	305.9	231.9	74.0	567.8	2065.3	540.5	249.6	11.1	25.2	3459.5
Jun	307.9	233.7	74.2	570.0	2068.7	538.0	249.0	10.6	20.9	3457.2
Jul	309.3	235.7	73.6	567.3	2072.9	535.0	249.3	10.5	15.3	3450.3
Aug	312.7	238.4	74.3	570.1	2076.9	529.2	253.0	11.0	23.5	3463.7
Sep	316.5	241.5	75.0	572.1	2079.8	521.9	249.7	11.3	31.0	3465.8
Oct	318.0	243.9	74.1	568.9	2079.8	515.1	249.3	10.5	21.0	3444.4
Nov	320.0	245.0	75.0	570.0	2079.7	512.5	243.4	10.3	19.1	3435.0
Dec	322.0	246.4	75.6	570.7	2080.9	507.1	235.7	10.2	23.1	3427.7
Jan 1991	326.8	251.6	75.2	566.8	2081.1	511.9	231.4	10.7	29.4	3431.3
Feb	332.8	255.1	77.7	573.0	2089.6	516.0	229.6	9.7	39.3	3457.2
Mar	335.2	256.7	78.5	576.1	2098.0	511.5	223.5	9.5	28.4	3449.0
Apr	333.5	256.6	76.9	577.7	2104.0	507.3	220.1	10.0	20.3	3439.4
May	335.6	256.8	78.8	586.6	2109.7	503.9	214.9	9.7	19.6	3444.6
Jun	336.2	257.6	78.6	593.0	2110.1	498.6	211.4	9.1	23.6	3446.0
Jul	337.1	258.9	78.2	593.1	2108.7	491.1	208.3	9.6	20.6	3431.6
Aug	340.1	260.7	79.4	597.9	2106.4	484.3	209.8	9.6	17.1	3425.1
Sep PE	343.7	261.5	82.2	599.1	2106.8	478.4	208.6	9.5	16.7	3419.1

* Includes Money Market Deposit Accounts

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

Table 1 - Part 2

Federal Reserve Action and Monetary Growth

Date	(11) Adjusted Reserve Ratio (3/10)	(12) Currency Ratio (2/4)	(13) Savings & Small Time Deposit Ratio (5/4)	(14) Large Time Deposit Ratio (6/4)	(15) Non-deposit Liabil. Ratio (7/4)	(16) Foreign Deposit Ratio (8/4)	(17) Treasury Deposit Ratio (9/4)	(18) Money Multiplier (2+4/1)
Jan 1989	0.0215	0.3773	3.4677	0.9674	0.5488	0.0196	0.0442	2.7137
Feb	0.0214	0.3789	3.4697	0.9791	0.5488	0.0198	0.0458	2.7103
Mar	0.0216	0.3824	3.4888	0.9948	0.5623	0.0187	0.0321	2.6903
Apr	0.0212	0.3857	3.5216	1.0163	0.5454	0.0188	0.0361	2.6869
May	0.0210	0.3921	3.5692	1.0375	0.5476	0.0190	0.0621	2.6609
Jun	0.0211	0.3954	3.6017	1.0466	0.5487	0.0213	0.0477	2.6449
Jul	0.0210	0.3931	3.5909	1.0372	0.5358	0.0211	0.0415	2.6599
Aug	0.0210	0.3948	3.6135	1.0310	0.5170	0.0190	0.0285	2.6562
Sep	0.0212	0.3947	3.6181	1.0229	0.4960	0.0198	0.0448	2.6518
Oct	0.0213	0.3924	3.5990	1.0100	0.4754	0.0205	0.0369	2.6623
Nov	0.0214	0.3930	3.6152	1.0077	0.4715	0.0193	0.0262	2.6564
Dec	0.0214	0.3940	3.6107	0.9993	0.4558	0.0197	0.0348	2.6546
Jan 1990	0.0213	0.3985	3.6221	0.9940	0.4489	0.0201	0.0412	2.6446
Feb	0.0213	0.3997	3.6114	0.9788	0.4431	0.0187	0.0388	2.6441
Mar	0.0218	0.4016	3.6149	0.9659	0.4343	0.0186	0.0294	2.6272
Apr	0.0215	0.4042	3.6206	0.9542	0.4263	0.0188	0.0351	2.6267
May	0.0214	0.4084	3.6374	0.9519	0.4396	0.0195	0.0444	2.6143
Jun	0.0215	0.4100	3.6293	0.9439	0.4368	0.0186	0.0387	2.6103
Jul	0.0213	0.4155	3.6540	0.9431	0.4395	0.0185	0.0270	2.5962
Aug	0.0215	0.4182	3.6430	0.9283	0.4438	0.0193	0.0412	2.5855
Sep	0.0216	0.4221	3.6354	0.9123	0.4365	0.0198	0.0542	2.5706
Oct	0.0215	0.4287	3.6555	0.9054	0.4382	0.0185	0.0369	2.5560
Nov	0.0218	0.4298	3.6486	0.8991	0.4270	0.0181	0.0335	2.5469
Dec	0.0221	0.4318	3.6462	0.8886	0.4130	0.0179	0.0405	2.5376
Jan 1991	0.0219	0.4439	3.6717	0.9031	0.4083	0.0189	0.0519	2.5043
Feb	0.0225	0.4452	3.6468	0.9005	0.4007	0.0189	0.0686	2.4883
Mar	0.0228	0.4440	3.6291	0.8848	0.3866	0.0184	0.0491	2.4905
Apr	0.0224	0.4442	3.6420	0.8781	0.3810	0.0173	0.0351	2.5016
May	0.0229	0.4376	3.5953	0.8587	0.3662	0.0185	0.0337	2.5137
Jun	0.0228	0.4344	3.5583	0.8411	0.3565	0.0153	0.0398	2.5300
Jul	0.0228	0.4365	3.5554	0.8280	0.3512	0.0162	0.0351	2.5274
Aug	0.0232	0.4360	3.5230	0.8100	0.3509	0.0161	0.0286	2.5246
Sep PE	0.0240	0.4365	3.5166	0.7984	0.3481	0.0159	0.0279	2.5041

Table 2

Federal Reserve Action and Monetary Growth

(Compound Annual Rates of Change)

Date	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	This is accounted for by changes in the: Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jan 1989	-2.73	3.84	-6.58	2.56	-6.96	-1.09	-0.83	-0.07	0.02	-0.21
Feb	1.40	2.97	-1.57	1.71	-2.46	-0.10	-0.62	0.00	-0.01	-0.09
Mar	-1.38	7.76	-9.15	-2.02	-5.36	-1.01	-0.83	-0.72	0.06	0.73
Apr	-5.12	-3.67	-1.45	6.54	-5.56	-1.93	-1.26	1.01	-0.01	-0.24
May	-8.76	2.53	-11.29	2.34	-8.85	-2.33	-1.05	-0.11	-0.01	-1.26
Jun	-3.83	3.37	-7.21	-1.06	-4.66	-1.58	-0.45	-0.05	-0.11	0.71
Jul	8.79	1.67	7.12	1.62	3.53	0.54	0.47	0.65	0.01	0.31
Aug	1.25	2.93	-1.68	-0.07	-2.51	-1.14	0.31	0.95	0.11	0.66
Sep	2.99	5.06	-2.07	-2.60	0.14	-0.23	0.42	1.07	-0.04	-0.83
Oct	9.70	4.61	5.09	-1.41	3.43	0.98	0.66	1.06	-0.04	0.40
Nov	1.39	4.17	-2.78	-1.98	-0.90	-0.81	0.12	0.20	0.06	0.54
Dec	7.30	8.03	-0.73	-0.24	-1.55	0.24	0.45	0.85	-0.02	-0.46
Jan 1990	2.78	7.54	-4.76	2.27	-6.72	-0.61	0.29	0.37	-0.02	-0.35
Feb	8.87	9.23	-0.36	-0.33	-2.02	0.60	0.85	0.32	0.08	0.13
Mar	5.58	14.02	-8.44	-6.97	-2.99	-0.19	0.71	0.48	0.00	0.52
Apr	4.61	4.85	-0.24	5.93	-6.97	-0.55	1.15	0.79	-0.01	-0.56
May	-0.60	5.24	-5.84	2.11	-6.02	-0.86	0.12	-0.68	-0.04	-0.47
Jun	6.17	8.13	-1.96	-1.05	-2.34	0.42	0.42	0.14	0.05	0.40
Jul	-1.04	5.59	-6.64	1.89	-7.68	-1.25	0.04	-0.13	0.00	0.50
Aug	8.54	14.02	-5.48	-1.79	-4.04	0.58	0.79	-0.23	-0.04	-0.75
Sep	7.84	15.60	-7.76	-2.81	-5.90	0.41	0.86	0.39	-0.02	-0.69
Oct	-1.17	5.84	-7.01	1.80	-9.00	-1.02	0.35	-0.09	0.07	0.88
Nov	3.30	7.81	-4.52	-4.36	-1.55	0.34	0.32	0.56	0.02	0.17
Dec	3.14	7.76	-4.63	-3.00	-2.65	0.12	0.53	0.70	0.01	-0.35
Jan 1991	1.93	19.43	-17.50	2.11	-16.97	-1.41	-0.81	0.27	-0.06	-0.63
Feb	15.19	24.40	-9.21	-8.37	-2.01	1.42	0.15	0.43	0.11	-0.94
Mar	10.15	9.01	1.15	-3.52	1.47	0.84	0.74	0.87	0.02	0.92
Apr	-0.72	-5.92	5.20	4.80	-0.16	-0.57	0.30	0.25	-0.04	0.62
May	14.23	7.82	6.40	-6.23	8.70	2.22	0.91	0.69	0.04	0.07
Jun	10.42	2.17	8.26	0.85	4.39	1.88	0.89	0.49	0.06	-0.30
Jul	1.99	3.26	-1.27	0.27	-2.83	0.15	0.67	0.27	-0.04	0.24
Aug	9.70	11.22	-1.52	-5.68	0.77	1.92	1.06	0.02	0.01	0.38
Sep PE	2.87	13.42	-10.56	-11.03	-0.73	0.36	0.65	0.15	0.01	0.04
	1989	1989	1989	1989	1989	1989	1989	1989	1989	1989
	0.92	3.61	-2.69	0.45	-2.84	-0.71	-0.22	0.40	0.00	0.02
	1990	1990	1990	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH	1990 -IIH
	4.00	8.80	-4.80	-0.53	-4.82	-0.17	0.53	0.22	0.01	-0.05
1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH	1991 -IH
	8.53	9.48	-0.95	-1.72	-0.76	0.73	0.36	0.47	0.02	-0.04
1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH	1991 -IIH
	4.85	9.30	-4.45	-5.48	-0.93	0.81	0.79	0.15	-0.01	0.22
	-3.68	-0.18	-3.50	-3.76	-0.17	0.08	0.43	-0.32	-0.03	0.27
	4.39	-1.45	5.84	-0.06	4.89	0.75	0.03	0.14	0.00	0.08

Table 3

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

THREE-MONTH MOVING AVERAGES

Date	Monetary Growth (M-1)	Federal Reserve Actions (Monetary Base Growth)	Contribution of the Money Multiplier	This is accounted for by changes in the: Adjusted Reserve Ratio	Currency Ratio	Savings & Small Time Deposit Ratio	Large Time Deposit Ratio	Non-Deposit Liability Ratio	Foreign Deposit Ratio	Treasury Deposit Ratio
Jan 1989	0.33	4.45	-4.12	1.47	-4.30	-0.69	-0.45	-0.18	-0.02	0.05
Feb	0.39	3.27	-2.88	2.69	-4.12	-0.43	-0.62	-0.04	-0.01	-0.35
Mar	-0.90	4.86	-5.77	0.75	-4.93	-0.74	-0.78	-0.26	0.03	0.14
Apr	-1.70	2.36	-4.06	2.08	-4.46	-1.02	-0.91	0.10	0.02	0.14
May	-5.09	2.21	-7.30	2.28	-6.59	-1.76	-1.05	0.06	0.01	-0.26
Jun	-5.90	0.74	-6.65	2.61	-6.36	-1.95	-0.92	0.28	-0.04	-0.27
Jul	-1.27	2.52	-3.79	0.97	-3.33	-1.12	-0.34	0.16	-0.04	-0.09
Aug	2.07	2.66	-0.59	0.16	-1.21	-0.72	0.11	0.52	0.00	0.56
Sep	4.34	3.22	1.12	-0.35	0.39	-0.28	0.40	0.89	0.02	0.05
Oct	4.65	4.20	0.44	-1.36	0.36	-0.13	0.46	1.03	0.01	0.08
Nov	4.69	4.62	0.08	-2.00	0.89	-0.02	0.40	0.78	-0.01	0.04
Dec	6.13	5.61	0.53	-1.21	0.32	0.13	0.41	0.70	0.00	0.16
Jan 1990	3.82	6.58	-2.76	0.02	-3.06	-0.40	0.29	0.47	0.01	-0.09
Feb	6.32	8.27	-1.95	0.57	-3.43	0.08	0.53	0.52	0.01	-0.22
Mar	5.75	10.27	-4.52	-1.67	-3.91	-0.07	0.62	0.39	0.02	0.10
Apr	6.35	9.37	-3.01	-0.46	-4.00	-0.05	0.90	0.53	0.02	0.03
May	3.20	8.04	-4.84	0.35	-5.33	-0.53	0.66	0.20	-0.02	-0.17
Jun	3.39	6.08	-2.68	2.33	-5.11	-0.33	0.56	0.08	0.00	-0.21
Jul	1.51	6.32	-4.81	0.98	-5.35	-0.56	0.19	-0.22	0.00	0.14
Aug	4.56	9.25	-4.69	-0.32	-4.69	-0.08	0.42	-0.07	0.00	0.05
Sep	5.11	11.74	-6.63	-0.90	-5.68	-0.09	0.56	0.01	-0.02	-0.32
Oct	5.07	11.82	-6.75	-0.93	-6.31	-0.01	0.67	0.03	0.00	-0.19
Nov	3.32	9.75	-6.43	-1.80	-5.48	-0.09	0.51	0.29	0.02	0.12
Dec	1.75	7.14	-5.39	-1.86	-4.40	-0.19	0.40	0.39	0.03	0.23
Jan 1991	2.79	11.67	-8.88	-1.75	-7.05	-0.32	0.01	0.51	-0.01	-0.27
Feb	6.75	17.20	-10.45	-3.08	-7.21	0.04	-0.04	0.47	0.02	-0.64
Mar	9.09	17.61	-8.52	-3.26	-5.83	0.28	0.03	0.45	0.03	-0.22
Apr	8.21	9.16	-0.95	-2.36	-0.23	0.56	0.40	0.45	0.03	0.20
May	7.89	3.64	4.25	-1.65	3.34	0.83	0.65	0.54	0.01	0.54
Jun	7.98	1.36	6.62	-0.19	4.31	1.17	0.70	0.48	0.02	0.13
Jul	8.86	4.42	4.47	-1.70	3.42	1.42	0.83	0.49	0.02	0.00
Aug	7.37	5.55	1.83	-1.52	0.78	1.32	0.88	0.26	0.01	0.11
Sep PE	4.85	9.30	-4.45	-5.48	-0.93	0.81	0.79	0.15	-0.01	0.22

Table 4

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

Date	Reserve Growth Rate Month to Month	(Memo) Reserve Growth Rate Three-month Moving Average
Jan 1989	-7.80	-1.88
Feb	-3.21	-5.76
Mar	10.26	-0.25
Apr	-19.16	-4.04
May	-4.84	-4.58
Jun	3.37	-6.88
Jul	-3.26	-1.58
Aug	-3.27	-1.05
Sep	12.28	1.92
Oct	5.05	4.69
Nov	8.51	8.61
Dec	3.31	5.62
Jan 1990	-7.82	1.33
Feb	1.65	-0.96
Mar	27.43	7.09
Apr	-10.64	6.15
May	-4.74	4.02
Jun	3.29	-4.03
Jul	-9.28	-3.58
Aug	12.03	2.01
Sep	11.91	4.89
Oct	-13.49	3.48
Nov	15.59	4.67
Dec	10.03	4.05
Jan 1991	-6.17	6.49
Feb	48.06	17.31
Mar	13.08	18.32
Apr	-21.89	13.08
May	34.03	8.40
Jun	-3.00	3.04
Jul	-5.94	8.36
Aug	20.05	3.70
Sep PE	50.77	21.63
	1989	
	0.10	
	1990	
	3.00	
	1991 -IH	
	10.68	
	1991 -IIH	
	21.63	
	10.94	

Source: Federal Reserve Board; Heinemann Economic Research

FISCAL POLICY LACKS DIRECTION AND CREDIBILITY

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The track record and credibility of fiscal policymakers continue to deteriorate. Federal spending growth is rising rapidly, and massive budget revisions have dramatically raised deficits. The federal debt-to-GNP ratio is rising sharply and will exceed 50 percent in fiscal year 1992 for the first time since the late 1950s. Official projections of lower deficits have been postponed. The response of Congress to these unfavorable trends has been an affront to fiscal responsibility. Within a year of enacting the Budget Enforcement Act of 1990 with much fanfare, the House and Senate passed an extension of unemployment insurance benefits—the $5 billion bill was vetoed by the President—and Congress is now considering a new expensive spending package, in direct violation of the new budget discipline.

Not all aspects of the budget outlook are dismal: excluding the costs of deposit insurance, under current law spending growth and deficits should fall beginning in 1993, and the primary deficit (deficit excluding net interest outlays) is very small and should become a primary surplus by FY 1993 or 1994, depending on the net costs of deposit insurance. However, the more favorable out-year budget projections require adhering strictly to the discretionary spending caps imposed by the Budget Enforcement Act, and the fiscal policymakers give us no reason to believe them.

This lack of progress on reducing the deficit and the continued bias toward deficit spending for consumption-oriented entitlement programs rather than productivity-enhancing investment programs will have a mounting negative impact on national savings, the mix of output, and long-run potential growth. Moreover, the lack of direction in fiscal policy strains credibility and may induce undesirable monetary policy responses. Emerging trends in international finance heighten the need for a new direction in fiscal policy.

Unpleasant Revisions in Budget Projections

Most notable in OMB's and CBO's mid-session budget reviews is the dramatic jump in deficits. The FY1991 deficit should be approximately $280 billion, up from $220 billion in FY1990. This is actually less than was projected in early 1991. Two sources have suppressed 1991 spending and the deficit: higher-than-expected contributions by Allied nations for the costs of Desert Storm/Desert Shield ($48 billion versus $15 billion estimated in January) which, as offsetting receipts, are counted as negative spending, and the lower-than-anticipated costs of deposit insurance, reflecting some delays in the RTC's savings and loan case load resolution. However, these factors will reserve, as Gulf War related spending will continue to in 1991 after allied contributions end, and RTC working capital needs will peak in 1991. The deficit is expected to surge to a record $350 billion in FY1992. This would constitute over 6 percent of GNP, the highest since 6.3 percent in FY1983, and more than double the 2.9 percent in FY 1989.

Moreover, the out-year projections of deficits are dramatically higher than estimates in early 1991. The deterioration stems from downward revisions in tax receipts and significantly higher spending. The recession has suppressed taxable income, and there has been a shortfall of taxes relative to income. The shortfall is expected to persist as the economy rebounds.

Federal spending growth has accelerated markedly during the Bush Administration. Real spending, which grew 2.8 percent annually from 1980 to 1989, is expected to grow 5.6 percent annually from 1989 to 1992. Following 9.5 percent nominal growth in FY1990, spending growth should slow to slightly over 7 percent in 1991 and then accelerate sharply to approximately 12 percent in 1992. The largest source of this spending surge is the costs of deposit insurance. The costs of clearing up the S&L industry are a realization of prior government obligations, and any economic impact should properly be attributed to earlier years. Eventually, these costs will diminish, and the proceeds from the disposition of the government's acquired assets will reduce deficits. OMB is significantly more optimistic than the CBO about when this switch in budgetary impact occurs. Moreover, although the costs of funding the bank-related activities of the Bank Insurance Fund should be significantly less than the costs of the S&L clean-up, they remain highly uncertain, and may include unpleasant surprises.

Besides deposit insurance, however, spending for other domestic programs is growing very rapidly. Meanwhile, real defense spending excluding the costs of Desert Storm/Desert Shield has been declining since 1986. Sharp growth in the nonmeans-tested entitlement programs, particularly Medicare, has been persistent, with no slow down in sight. In FY1991, recession related increases in means-tested entitlement programs, including Medicaid, food stamps, Supplemental Security

Income, and unemployment insurance, have jumped. Medicaid costs increases will not abate: after rising from $14 billion in 1980 to $52 billion in 1991, the CBO projects them to double again to $150 billion by 1996. The Administration has also sharply revised its projected outlays of Medicaid costs.

During the Bush Administration, there has also been a marked pick-up in spending for space, drugs, energy, housing and several other nondefense discretionary programs. These increases, as well as those in the entitlement and mandatory programs, created a high base for the new flexible limited established by the Budget Enforcement Act of 1990.

The surging deficits have added dramatically to the publicly-held debt. From 1989 to 1992, the publicly-held debt will grow from $2.2 trillion to approximately $3 trillion, a 37 percent increase. Consequently, the debt-to-GNP ratio, which was 42.5 percent in 1989, will rise about 50 percent in 1992, and approach 53 percent by 1994. The rising debt is highly undesirable in terms of national saving, capital formation, and long-run potential growth. This issue is particularly pressing given the heavy transfer payment and consumption orientation of the deficit spending, the heightened demand for worldwide capital, and the slow down in foreign capital inflows.

The Good Budget News, as Usual, is Years Off

Two angles on the budget outlook are encouraging, but the good news is years away, and will unfold only if the budget policymakers adhere to current law, which may prove difficult. First, excluding the costs of deposit insurance and net interest outlays, the budget is nearly in balance and will turn into surplus beginning in FY1993. Second, spending growth is projected to slow sharply in FY1993 and decline significantly as a share of GNP through the projection period.

The primary budget (budget excluding net interest outlays), which reached a small surplus in FY1989, will fall into deficit of over $80 billion in 1991 and over $150 billion in 1992, an all-time record, before shrinking sharply. Most of the primary deficit buildup in 1990-1992 is due to the costs of deposit insurance. Excluding both net interest outlays and the costs of deposit insurance, the budget is in slight deficit in 1991-1992, but under current law will enjoy mounting surpluses in later years. While these long-term projections suggest improvement in limiting new spending growth, they should not overshadow the budgetary and economic costs of deposit insurance, the burden of the mounting costs of debt service, or the fact that actual budget outcomes have consistently fallen short of projections.

The sharp slow down in spending beginning in 1993 is projected to occur as deposit insurance costs become net surpluses, real defense outlays decline, a and on-defense discretionary program spending falls flat in real terms. However, these budget outcomes hinge on full implementation of the discretionary caps imposed by the Budget Enforcement Act of 1990. This will require no legislative slippage through 1993 and significant spending-cut legislation in 1994-1995. Unless Congress finds a new sense of fiscal responsibility, achieving these spending and deficit projections will not occur, and further modification of the budget process will be necessary at that time.

The Lack of Fiscal Resolve and Credibility

As with the old Gramm-Rudman-Hollings (GRH), the effectiveness of the new Budget Enforcement Act relies on the resolve of the budget policymakers. That is not particularly comforting. While GRH probably helped marginally to prevent passage of certain deficit widening tax and spending bills, it was substantially revised twice before being completely abandoned when Congress found it too imposing. Moreover, GRH did not encourage meaningful budget reform in terms of considering tradeoffs among key spending programs, and only postponed debate about the rapid growth in the nonmeans-tested entitlement programs.

The new process has more flexibility, by allowing spending caps in discretionary domestic, (non war-related) defense and international programs to be adjusted for changing in economic conditions, budget emergencies and technical assumption. Since its passage, Congress has struggled with the process and has attempted to violate its intent. While Congress has twice rejected legislation that would have suspended the process, and voted against a payroll tax cut (which would not have been in violation of the law because social security is off-budget), it passed a $5 billion temporary extension of unemployment insurance benefits and is now considering a large spending package. These latter actions illustrate Congress's lack of fiscal resolve, and its disregard for the new budget discipline. Most disappointing, the Congressional budgetary debate generally neglects spending tradeoffs among programs, one of the key objectives of the new law. With this inauspicious start, full compliance with the law's discretion caps, particularly in 1994-1995, seems highly unlikely.

Even if the deficits eventually recede according to official projections, the new budget process reinforces the 1980's trend of more spending on consumption-oriented entitlement programs and less on investment-oriented activities. It does so by placing ***absolute*** limits on the cluster of domestic discretionary programs which includes many investment activities, but allows spending increases in entitlement programs scheduled under current law, and legislated increases in those programs if they are matched by tax hikes. The mix of spending and its implications for the allocation of national resources should receive closer scrutiny in the budget debate.

The mounting lack of fiscal credibility generates its own set of adverse consequences. It suppresses the U.S. dollar exchange rate, which involves a lower standard of living, and probably keeps interest rates higher than they would be with credible fiscal policy. Uncertainty about the future course of specific tax and spending policies distorts decisions to spend, save and invest, and generates deadweight economic losses. The lack of credibility also reduces the effectiveness and reliability of fiscal policy as an aggregate demand tool by raising the uncertainty about economic responses to a shift in tax or spending policy. Restoring credibility will remain illusive if budget resolutions and each newly instituted budget process are quickly violated; if programs that constitute over half of all spending are automatically excluded from budget negotiation, even if some of those programs are structurally flawed; and if short-term political considerations overwhelm issues of national resource allocation, long-run economic growth, and intertemporal equity.

Monetary Policy Responses to Fiscal Policy

The Federal Reserve must avoid the temptation to adjust monetary policy in an attempt to offset the perceived consequences of fiscal or budget policy. For any reasons, the unprecedented deficits must **not** be monetized. Monetary and fiscal policies are not substitutable in their short or long-run effects on either the real economy or inflation. The Fed has clearly stated its long-run objective as maximum sustainable economic growth and has also stated that the primary role of monetary policy in pursuit of this goal is to foster price stability. The Fed must not alter monetary policy in a direction inconsistent with its long-term objectives in response to the perceived failures of fiscal policy, or offer lower interest rates as a political inducement to extract a change in fiscal policy. Such practice is unsound economically and may produce undesired side effects. For example, in Fall 1990, the Fed effectively offered an easier funds rate if Congress would pass a meaningful deficit-cutting package. During a prolonged Congressional debate, the Fed pegged the funds rate too high as economic conditions deteriorated, which involved draining bank reserves and an inadvertently tight monetary policy. Subsequent sharp declines in the funds rate in early 1991 generated a perceived loss in Fed credibility, a sharp steepening of the yield curve, and an uneven pattern of monetary policy.

In response to the record deficits since the early 1980s, the Fed has been absorbing a lower portion of the publicly-held debt. The ratio of the monetary base-to-federal debt has declined on average. Of course, this is only a simple calculation and does not measure the response to the Fed to changes in federal debt **independent** of economic performance, inflation in financial market trends. However, it is a necessary requirement in the Fed's pursuit of the long-run objective of stable prices.

Table 1

CBO AND ADMINISTRATION ECONOMIC PROJECTIONS

(Calendar Year 1989-1995)

	Actual	Projections					
	1990	1991	1992	1993	1994	1995	1996
Nominal GNP (Billions of dollars)							
CBO	5,465	5,655	6,037	6,409	6,798	7,211	7,650
Administration	5,465	5,674	6,076	6,521	6,976	7,442	7,923
Real GNP (Percentage change, Year-over-year)							
CBO	1.0	-0.1	3.4	2.7	2.6	2.6	2.6
Administration	1.0	-0.2	3.2	3.5	3.3	3.1	3.0
Consumer Price Index (Percentage change, Year-over-year)							
CBO	5.4	4.3	3.8	3.9	3.9	3.9	3.9
Adminstration	5.4	4.4	3.8	3.8	3.6	3.4	3.3
Implicit GNP Deflator (Percentage change, Year-over-year)							
CBO	4.1	3.6	3.2	3.4	3.4	3.4	3.4
Administration	4.1	4.0	3.8	3.7	3.5	3.5	3.4
Three-Month Treasury Bill Rate (Percent)							
CBO	7.5	5.8	6.2	6.2	6.0	5.9	5.8
Administration	7.5	5.7	5.9	5.8	5.6	5.4	5.3
Ten-Year Treasury Note Rate (Percent)							
CBO	8.6	8.2	8.3	8.0	7.7	7.4	7.3
Administration	8.6	8.0	7.8	7.0	6.6	6.4	6.3
Inflation-Adjusted 91-day Treasury Bill Rate							
CBO	2.1	1.5	2.4	2.3	2.1	2.0	1.8
Administration	2.1	1.3	1.9	2.0	2.0	2.0	2.0

Sources: Executive Office of the President, *Mid-Session Review of the Budget*, July 1991, and Congressional Budget Office, *The Economic and Budget Outlook: An Update*, August 1991.

Table 2

SELECTED BUDGET PROJECTIONS

(Fiscal Years)

	Estimated	Forecast		Projected			
	1990	1991	1992	1993	1994	1995	1996
Receipts							
President's Budget	1031.3	1068.7	1145.5	1233.3	1334.3	1427.1	1517.0
CBO Baseline	1031.3	1058.0	1141.0	1228.0	1299.0	1377.0	1449.0
Outlays							
President's Budget	1251.7	1350.9	1493.8	1478.9	1466.4	1500.7	1572.5
CBO Baseline w/caps	1252.0	1337.0	1504.0	1501.0	1534.0	1534.0	1605.0
Outlays for Deposit Insurance							
President's Budget		83.5	118	49	-25.4	-45.2	-37.4
CBO	76	89.0	115	58	32.0	-32.0	44.0
Deficits							
President's Budget	220.4	282.2	348.3	245.7	132.1	73.6	55.5
CBO Baseline w/caps	220.0	279.0	362.0	278.0	234.0	157.0	156.0
President Ex. Dep Ins & Desert Storm/ Desert Shield	220.0	-227.7	213.5	192.9	155.8	118.1	92.6
Receipts, % Change							
President's Budget	4.1	3.6	7.2	7.7	8.2	7.0	6.3
CBO Baseline	4.1	2.6	7.8	7.2	6.2	6.0	5.2
Outlays, % Change							
President's Budget	9.5	7.9	10.6	-1.0	-0.8	2.3	4.8
Ex. Deposit Insurance	6.5	8.7	3.8	4.3	4.2	3.2	
CBO Baseline w/Caps	9.5	6.7	12.5	-0.2	2.2	0.0	4.6
Ex. Deposit Insurance	6.5	8.0	5.2	4.6	2.8	4.3	
As a Percentage of GNP:							
Revenues							
President's Budget	19.1						
CBO Baseline	19.1	18.9	19.2	19.4	19.4	19.4	19.2
Outlays							
President's Budget	23.2						
CBO Baseline w/Caps	23.2	23.9	23.3	23.8	22.9	21.6	21.3
Deficit							
President's Budget	4.1	5.0	5.8	3.8	1.9	1.0	0.7
CBO Baseline w/Caps	4.1	5.0	6.1	4.4	3.5	2.2	2.1
Publicly-held debt							
President's Budget	44.6						
CBO Baseline	44.6	48.0	51.2	52.5	53.0	52.2	51.3

Sources: Executive Office of the President, *Mid-Session Review of the Budget*, July 1991, and Congressional Budget Office, *The Economic and Budget Outlook: An Update*, August 1991.

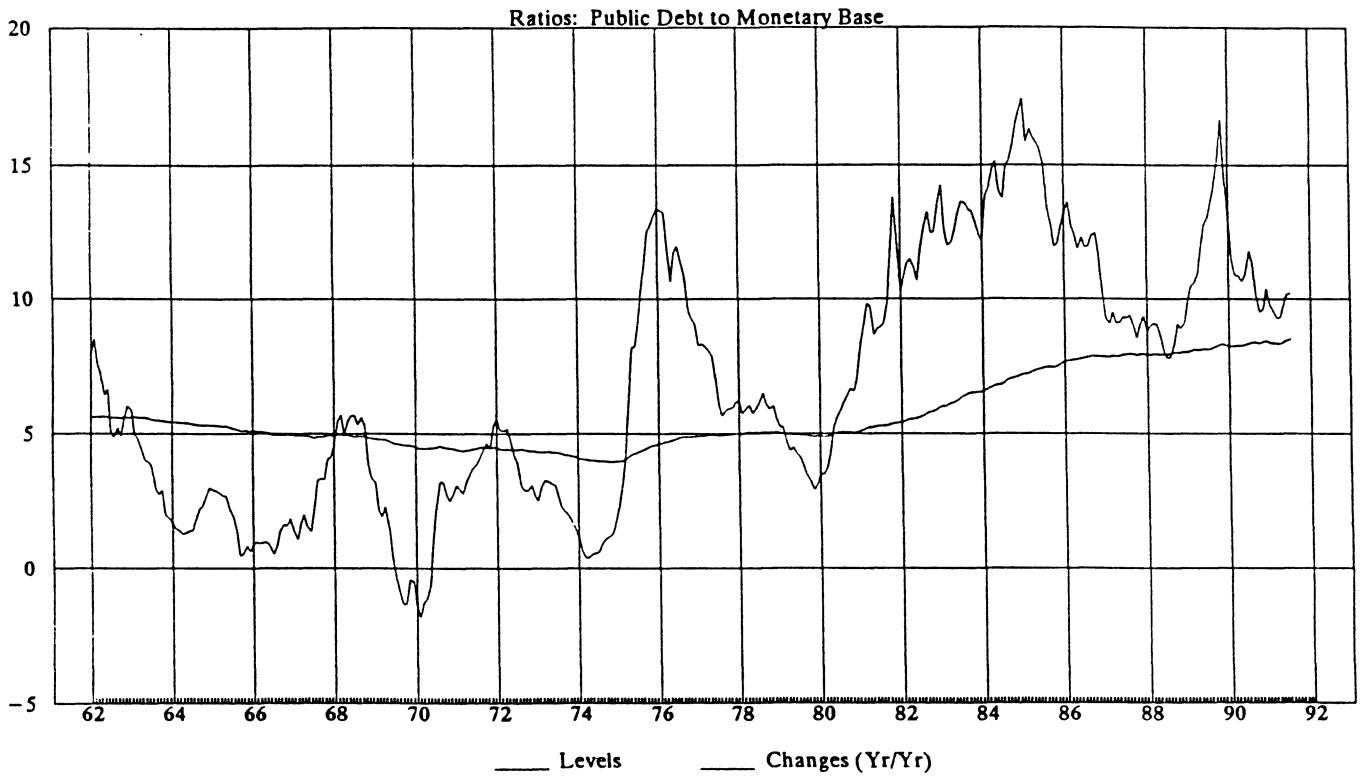
Table 3

SELECTED BUDGET MEASURES

(Fiscal Years, $ Billions)

	1991	1992	1993	1994	1995	1996
Deficit (-), CBO Baseline w/caps	-279	-362	-278	-234	-157	-156
Net outlays for Deposit insurance	77	115	58	32	-32	-44
Deficit (-) minus costs of deposit insurance	-202	-247	-220	-202	-125	-112
Net Interest Outlays	196	208	229	246	257	266
Primary Deficit (-) or Surplus (+) (Ex. net interest)	-83	-154	-49	12	100	110
Primary Deficit (-) or Surplus (+) (Ex. deposit insurance)	-6	-39	9	44	132	154

Sources: Congressional Budget Office, *The Economic and Budget Outlook: An Update*, August 1991.


Ratios: Public Debt to Monetary Base
20
15
10
5
0
−5
62
64
66
68
70
72
74
76
78
80
82
84
86
88
90
92
Levels
Changes (Yr/Yr)

RECENT BEHAVIOR OF MONETARY AGGREGATES

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During the past several years, M2 has emerged as the monetary aggregate which is the focus of Fed attention, to the extent that monetary aggregates have played any role in the formulation of monetary policy during this period. In recent months, growth of M2 has slowed almost to a standstill, provoking considerable comment that the Fed is setting the stage for a slow if not aborted recovery from the recent recession. This analysis focuses on three questions: what is the cause of the slow growth in M2 since the beginning of 1991; has the relationship between M2 and nominal income changed in some fundamental way, and is the recent behavior of M2, real income and prices consistent with past observations?

Sources of the Slowdown in M2 Growth

The slow growth in M2 during 1991 is in dramatic contrast to the behavior of the narrower aggregates, the monetary base and M1. From a January, 1991 base, the adjusted monetary base has increased 3.10 percent through July, M1 has increased 3.91 percent, while M2 has increased only 1.73 percent[1,2]. Consequently the M1 multiplier has increased 0.81 percent while the M2 multiplier has decreased by 1.37 percent. What accounts for this disparate behavior?

mportant consideration in the analysis of this issue is the reduction of all reserve requirements on time deposits to zero last December. Traditionally we have looked at the M1 multiplier as:

[1] I have chosen January, 1991 as a base point deliberately to avoid the questions about the appropriate magnitude of the adjustment for the reserve requirement change that was implemented last December. We discussed the conceptual problems associated with this adjustment last March. It is worth noting in passing that "surplus vault cash" has averaged 4.2 billion over the five months January-May, 1991, compared with 2.9 billion in November, 1990 before the change in reserve requirements.

[2] The same story is reflected in the monetary base of the Board which increased 2.83 percent from January through July.

$$M1 = \frac{1+k(1+tc)}{r(1+t_1+g+f)+k}$$

where:

k = currency/private checkable deposit ratio
tc = travelers check/currency ratio
g = government deposits/private checkable deposits ratio
f = foreign official deposits/private checkable deposit ratio
r = total reserves/total deposits ratio
t_1 = ratio of non-M1 components of M2 to private checkable deposits

Since the reserve requirement on all non checkable deposits is now zero, it is more accurate to express the M1 multiplier as:

$$M1 = \frac{1+k(1+tc)}{r^*(1+g+f)+k}$$

where:

r^* = the ratio of total reserves to total checkable deposits (government foreign and private checkable deposits)

The important change in 1991 is that fluctuations in the ratio of "time deposits" to private checkable deposits have no impact on the M1 multiplier, since they do not absorb or release reserves. The corresponding M2 multiplier is:

$$M2 = \frac{1+k(1+tc)+t_1}{r^*(1+g+f)+k}$$

The broad conclusions that emerge from all of the analysis constructed by Rasche and Johannes is that given the historical size of tc, g, and f, the elasticities of the various multipliers with respect to these components are so small that they have only minor influences on multiplier fluctuations. This means that under the new reserve requirement rules the k and r^* ratios are the only major sources of fluctuations in the M1. This is certainly true in the past six months. Of the 0.81 percent increase in M1, .78 percent is attributable to the decline in the k ratio from .4440 in January to .4365 in July. The decline in the reserve ratio of about 0.6 percent contributed 0.14 percent to the increase in M1, while other factors and the residual of the linearization contributed -0.08 percent.[3] The story for M2 is much different. From January through July the t_1 ratio declined from 4.4226 to 4.2629, 3.68

[3]Elasticities of the multipliers with respect to the component ratios are evaluated at January levels.

percent. This had the impact of reducing the M2 multiplier by 2.[illegible] percent, which more than offset the combined effects of the lower k and r^* ratios, which by themselves would have increased M2 by 1.16 percent (not much different from their combined contribution to M1 growth).

The decline in the t_1 ratio came about with a dramatic redistribution of the components of M2 that are not in M1. Overnight RPs (which are not insured deposits) shrunk continually since the middle of 1990. Savings deposits increased steadily since the beginning of 1991, while small time deposits (small CDs) declined steadily. It is of interest to examine the pattern of interest rates over the past 18 months. In the first half of 1990 the spread of the Treasury bill rate over the estimated average rate on M2 (RM2) was around 180 basis points. By December 1990 this spread had declined to 120 basis points and during the first several months of 1991 the spread has fluctuated around 90 basis points[4]. During the same period the rate on other checkable deposits (ROCD) held steady during 1990 and declined by about 25 basis points from the beginning of 1991 through July[5]. Consequently the spread of RM2 over ROCD has dropped from around 90 basis points in the first half of 1990 to zero by April, 1991, where it remains. Thus on average there is now no net return to holding M2 deposits compared to other checkable deposits.

Is the behavior of the time deposit (t_1) ratio predictable? Rasche and Johannes [1987], Table 7.1, estimate a simple IMA model for this multiplier component using not seasonally adjusted monthly data over a 1971-83 sample period as:

$$(1-B)(1-B^{12})\ln t_1 = \underset{(3.68)}{(1+.3025B)}\,\underset{(10.52)}{(1-.6899B^{12})}e_t.$$

A corresponding model, using monthly seasonally adjusted data over the same sample period is:

$$(1-B)\ln t_1 = \underset{(5.57)}{.03746} + \underset{(4.00)}{(1+.3073B)}e_t$$

Extending the sample period through the end of 1990 gives the following estimates:

$$(1-B)\ln t_1 = \underset{(3.88)}{.02339} + \underset{(6.67)}{(1+.3969B)}e_t$$

so the model has remained quite robust over the most recent seven years. The one month ahead forecasts from the model estimated over the full 1971-90 sample period are:

---

[4] As discussed below, this spread is an important player in the Board's model of M2 behavior.

[5] The average rate on M1 as estimated by the staff of the Board has declined by about 10 basis points, most of which occurred during 1991.

Month	*Actual t_1*	*Forecast t_1*	*Error (%)*
91:1	4.42262	4.40023	.0051
91:2	4.39347	4.44192	-.0109
91:3	4.37893	4.38464	-.0013
91:4	4.39855	4.38692	.0026
91:5	4.33367	4.41348	-.0182
91:6	4.28364	4.31248	-.0067
91:7	4.26286	4.28226	-.0045
91:8		4.26515	

The only big forecast error occurs in May when the t_1 ratio fell sharply. All the remaining forecast errors are small compared to the standard error of the regression. Since the elasticity of the M2 multiplier with respect to t_1 is about .75. The overestimate of t_1 in May contributed 1.35 percent to the forecast error of M2 in that in that month.

It would be useful to have a set of forecasts for the M1 and M2 multipliers. Unfortunately, given the change in reserve requirements and its implications for the structure of the multipliers, it is not immediately clear how to construct an appropriate historical time series for r^*.

The Relationship Between M2 and Nominal Income

The source of recent interest in M2 within the Federal Reserve System stems in part from research conducted by Hallman, Porter, and Small [1988]. Their investigation and construction of so called P^* is predicated on the assumption that the velocity of M2 in the post-Accord period is stationary around a mean of approximately 1.65. The stationary assumption asserts that when velocity deviates from its mean, it has a tendency to revert back to the mean. The end of the HPS sample period, 88:1 is marked in the attached graph by a vertical line. The data generated since then provide no evidence to contradict the assertion that M2 velocity is stationary and no evidence to support a conclusion that the relationship between M2 and nominal income has changed. Throughout 1989 M2 velocity increased toward the sample period mean, and in recent quarters it has fluctuated very close to that mean. If anything, the recent data strongly reject the HPS conjecture that the mean of M2 velocity may be smaller in the 80s than the mean during the previous two decades.

It is important to remember what is not assumed in the above hypothesis. Stationarity does not imply that M2 velocity is constant, nor that it cannot deviate considerably from its mean, nor that deviations from the mean velocity will necessarily be quickly reversed. It is evident from the graph of M2 velocity against it mean over the 55:1 - 88:1 sample period that there have been periods

of large and persistent deviations from the mean. Such deviations translate into short-run (quarter-to-quarter or year-to-year) growth rates of M2 velocity that are highly variable. Therefore, it does not follow from the stationarity assumption that slow growth in M2 necessarily implies slow growth in nominal income. This point seems to be lost in many recent commentaries, including some by economists, who have argued that without an acceleration in M2 growth nominal income growth will necessarily be sluggish and the economy cannot recover from the recent recession. Given the considerable historical variance in M2 velocity, considerable probability must be attached to the possibility that nominal income can grow strongly in the future even if M2 growth remains very low; the difference resulting from a positive growth in M2 velocity.

The Relationship Between M2, Real GNP and the Price Level

Recently rumors have spread that the Federal Reserve has experienced considerable difficulty in forecasting M2. Apparently the primary forecasting instrument is a model developed by Moore, Porter and Small [1990] that includes two equations, one for the spread between the own rate on M2 deposits and the Treasury bill rate, and a second that purports to be a short-run demand equation for M2 deposits that depends upon the spread between the M2 own rate and the Treasury bill rate, changes in aggregate consumption expenditures, and includes an "error correction" term to reflect the assumed stationarity of M2 velocity. The structure of this model is quite simple. The Fed funds rate is assumed to be an exogenous variable, controlled by the Fed. In the model, the spread between the Treasury bill rate and the own rate on M2 is driven by changes in the Fed funds rate, under the assumption that the Treasury bill rate reacts quickly on the changes in the funds rate, while the rates paid on deposits react much more slowly. The spread between the Treasury bill rate and the own rate on M2 deposits in turn is the driving force in the demand for M2 relative to scale variables such as income and consumption. The equation determining M2 is described in Table 11 of Moore, Porter and Small (herewith). The characteristic of this equation is that in the long run M2 velocity depends on the spread between the Treasury bill rate and the own rate on M2 deposits and a very small time trend. In the short run, M2 velocity depends upon changes in the rate spread, changes in personal consumption expenditures and past changes in M2. The logic of the model structure is that as the funds rate is lowered, Treasury bill rates will fall much more rapidly than the rates on M2 components, so the opportunity cost of holding M2 balances relative to Treasury bills (short-term money market instruments) will decline and the demand for M2 will increase relative to income (M2 velocity will fall).

The difficulties that this specification has in forecasting the recent behavior of M2 are evident from elasticity calculations presented in Table 12 of Moore, Porter and Small [1990] (herewith). That table indicates that for a one percent maintained drop in the funds rate, M2 will increase, all else equal by .055 percent after two quarters and .084 percent after three quarters. In the third quarter of 1990 the funds rate averaged around 8.25 precedent; by the second quarter of 1991 it had declined to the 5.75 percent range where it remains in late August. This is a decline of 36 percent, which given the computed elasticities implies an increase in M2 of 2-3 percent ($70-$100 billion) for given levels of nominal GNP.

This model has been criticized harshly by Sims [1990] who argues "to use the system of equations developed here for policy conclusions, requires that the model's foundations be better supported. It is quite possible to treat a dynamic system like the one estimated here as a restriction of a reduced-form system that does not impose the Wold causal chain form or the restrictions on long-run relationships. In such a framework, many of the dubious assumptions on which this paper's conclusions rest could be tested. Without such tests, readers are likely to discount the results, treating them as if they came from a reduced form in any case."

Since we are interested in forecasting M2, real GNP and the price level, an adequate device is a simple reduced form model. Given the assumed stationarity of M2 velocity, we know that the reduced form relationship among the three variables can be expressed in the form of a vector error correction model (VECM) (see Engle and Granger [1987]). Such a model is simply a traditional VAR in the first differences of the three variables, augmented by an additional, so called error correction, term involving the lagged levels of M2 velocity. We have constructed such a model for the U.S., drawing upon the work of Yoshida and Rasche [1990] for Japan which extended the VECM by including lagged changes in the spread between the Treasury bill rate and the own rate on M2 as additional regressors. In addition we have included three dummy variables which define four different implicit monetary regimes: the 55-65 period of approximately constant and very low inflation, the 66-79 period of increasing inflation, the 79-81 period of decreasing inflation (the New Operating Procedures period) and the post-81 period of approximately constant inflation at a four percent annual rate. These dummy variables are included as a rough way of accounting for different

patterns in inflation expectations. Within the subperiods so defined, the evidence is strongly consistent with the hypothesis that the inflation rate is a stationary variable (see Pecchenino and Rasche [1991])[6].

The estimated VECM over the sample period 56-89 is given in Table 1. The model is estimated through 1989:4 and one period ahead forecasts have been constructed for the seven quarters 90:1 - 91:3 (all of the right hand side variables in the model, including the rate spread are lagged one quarter, so no assumptions are required to forecast through the current quarter. The actual (through 91:2) and forecast values, converted from logs to levels are as follows:

Quarter	*M2*		*Real GNP*		*Deflator*	
	Forecast	*Actual*	*Forecast*	*Actual*	*Forecast*	*Actual*
90:1	3259.2	3252.7	4152.5	4150.6	129.1	129.5
90:2	3299.8	3284.4	4163.0	4155.1	130.8	131.1
90:3	3327.7	3308.2	4164.0	4170.0	132.3	132.2
90:4	3348.5	3326.9	4173.0	4153.4	133.5	133.1
91:1	3367.5	3353.4	4154.5	4124.1	134.1	134.8
91:2	3395.8	3392.0	4125.3	4124.3	136.0	136.2
91:3	3439.5		4129.8		137.6	

The model certainly is not perfect, though most of the errors during the 90:1-91:2 period are small relative to the standard errors of the equations (.005 for M2, .008 for real GNP and .004 for the deflator). In particular, the model shares a general characteristic of autoregressive models that it fails to pick up turning points, and so catches the 90:4 downturn in real GNP only with a one quarter lag. It is also clearly going to miss the (likely) downturn in nominal M2 during the current quarter, though if M2 ultimately is estimated in the 3390 range for the quarter the error will not be so large as to suggest a dramatic breakdown in the historical relationships. It predicts a turning point in real GNP for the current quarter, though certainly a weak one. Again, given the known poor performance of VARs around turning points, in light of the information that we have about the economy so far this quarter, I expect that the model will prove to underpredict GNP in the third quarter when the estimates are finally in.

The point of this discussion is not be brag about or lament the forecasting ability of a simple VECM. Rather it suggests that the experience of the economy over the past year, as reflected in current estimates, is generally consistent with historical patterns in the data.

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[6] The model described here is drawn from my paper on "Indicators of Inflation" prepared for the forthcoming Fifth International Conference of the Institute for Monetary and Economic Analysis, the Bank of Japan, October 24-25, 1991.

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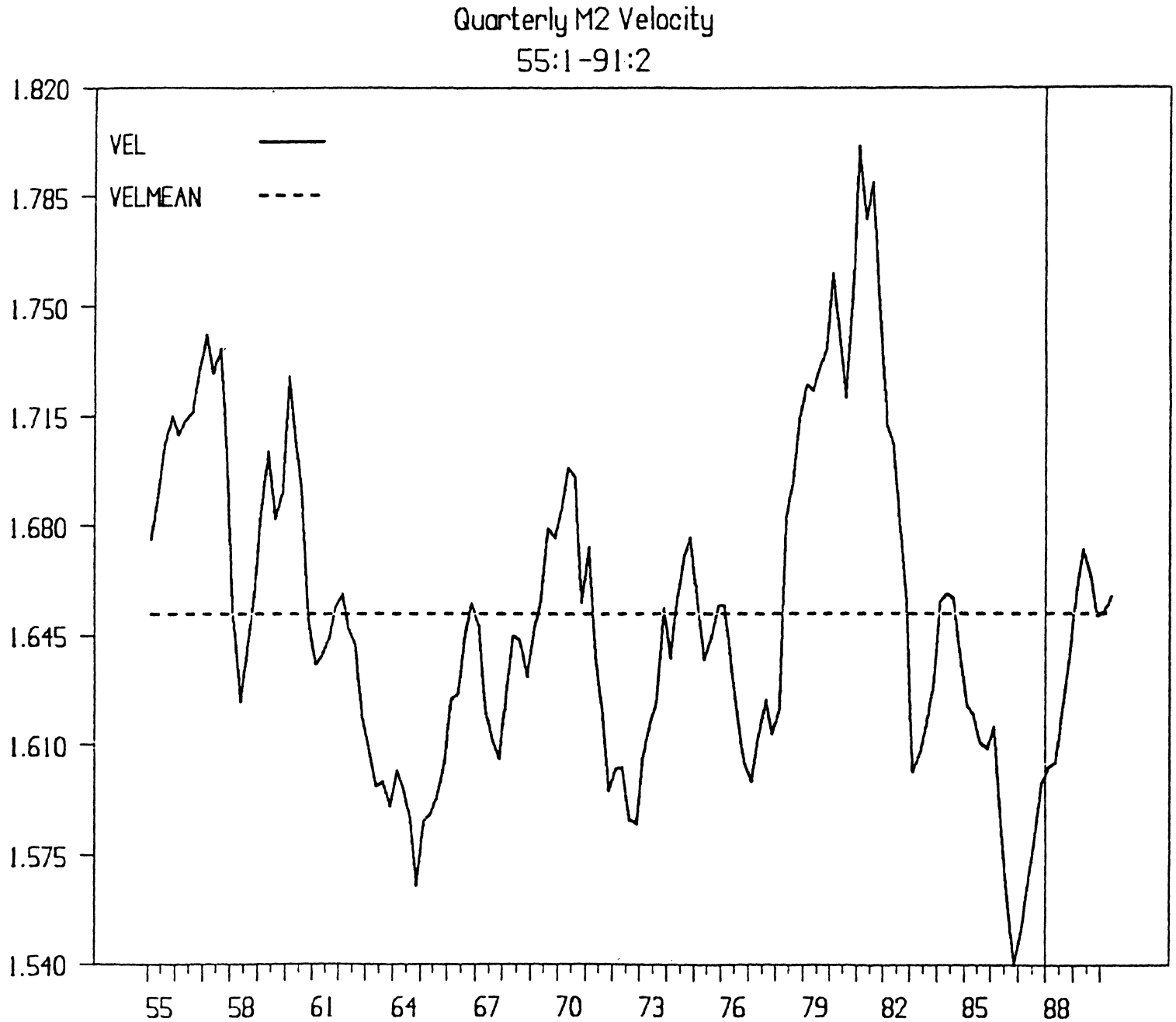
Table 1
Selected Interest Rates, 1990-1

	ROCD	RM2	RTB
90:1	5.06	5.88	7.64
90:2	5.05	5.89	7.74
90:3	5.05	5.93	7.90
90:4	5.04	5.93	7.77
90:5	5.05	5.92	7.74
90:6	5.05	5.92	7.73
90:7	5.06	5.85	7.62
90:8	5.04	5.79	7.45
90:9	5.03	5.77	7.36
90:10	5.01	5.73	7.17
90:11	4.99	5.66	7.06
90:12	4.98	5.54	6.74
91:1	4.93	5.31	6.22
91:2	4.87	5.06	5.94
91:3	4.85	4.98	5.91
91:4	4.81	4.84	5.65
91:5	4.76	4.75	5.46
91:6	4.74	4.72	5.57
91:7	4.73	4.68	5.58


Quarterly M2 Velocity
55:1-91:2
VEL
VELMEAN
1.820
1.785
1.750
1.715
1.680
1.645
1.610
1.575
1.540
55
58
61
64
67
70
73
76
79
82
85
88

11. Estimation results from aggregate M2 model for alternative sample periods[1]

Item	Model restricted in long run and short run[2]		Unrestricted model
	1964:1-1986:2	1964:1-1978:1	1964:1-1986:2
	(1)	(2)	(3)
Variable			
Constant	−.074	−.085	.083
	(6.0)	(5.0)	(1.3)
TIME	−.00007	−.00004	−.00007
	(2.5)	(1.2)	(2.2)
MMDA	.005	...	.0009
	(2.2)	...	(3.5)
OC	−.011	−.009	−.010
	(6.7)	(5.0)	(7.0)
EC	−.185	−.198	−.17
	(6.1)	(5.2)	(5.2)
Y	.185	.198	.14
	(6.1)	(5.2)	(4.4)
$\Delta cons$	.261	.262	.17
	(3.7)	(3.3)	(2.3)
$\Delta cons_{-1}$	.178	.192	.08
	(2.5)	(2.3)	(1.1)
$\Delta cons_{-2}$	.096	−.048	.02
	(1.6)	(−.6)	(.2)
ΔOC	−.009	−.006	−.007
	(5.5)	(3.2)	(4.2)
$\Delta C\ cont$	−.017	...	−.01
	(3.4)	...	(3.3)
Dum83:1	.025	...	.026
	(5.5)	...	(5.9)
Dum83:2	−.006	...	−.002
	(1.1)	...	(3.1)
$\Delta money_{-1}$	.466	.593	.35
	(5.7)	(5.6)	(4.5)
Regression statistic			
R^2	.704	.762	.737
Durbin-H	1.32	1.79	1.67
Standard error of regression	.0043	.0041	.0041

1. The mnemonics for this table and for tables 16, 17, 18, and 21 are defined as follows:

Coefficient	*Associated variable*
C cont	Dummy variable for credit controls: 1 in 1980:2 and 0 otherwise.
cons	Personal consumption expenditures.
Dum81:1	Dummy variable for introduction of nationwide NOW accounts: 1 in 1981:1 and 0 otherwise.
Dum83:1	Short-run dummy variable for the introduction of nationwide super NOW and MMDA accounts: 1 in 1983:1 and 0 otherwise.
Dum83:2	Same as *Dum83:1* but 0 in 1983:1 and 1 in 1983:2.

11. Continued

EC	Level of deposits being modeled (log). This is the error-correction coefficient.
JNOW	Index for the number of NOW accounts.
MMC	Dummy variable for the introduction of money market certificates: 0 through 1978:2, 1 thereafter.
MMDA	Dummy variable for the introduction of MMDAs: 0 through 1982:4, 1 thereafter.
money	Value of deposits being modeled (log).
OC	Opportunity cost of the deposit being modeled (Treasury bill rate minus own rate). The opportunity cost generally enters in logarithmic form, except at or close to negative values of the opportunity costs. The spreads between the rate on Treasury bills and the rates on small time deposits and MMMFs enter linearly for this reason. The opportunity costs of aggregate M2 and OSM are linear for values of the opportunity cost below 50 basis points.
OC2	Difference between the rate on small time deposits and the OSM own rate. Enters linearly for values below 50 basis points and logarithmically for values at or above 50 basis points.
ROSSME	Deposit-weighted average of the rates on OCDs, savings deposits, MMDAs, MMMFs, and small time deposits. Enters in logarithmic form.
Shift	Dummy variable for the "missing money" period of the mid-1970s: 0 through 1974:2, and increasing by steps of 1 per quarter until reaching a value of 10 in 1976:4; 10 thereafter.
Y	Nominal GNP (two-quarter moving average).

2. The coefficient *Y* is constrained to equal the negative of the error-correction coefficient so as to impose a long-run unitary elasticity of M2 demand with respect to GNP. Also, the coefficients on current and lagged changes in consumption plus the coefficient on the lagged change in M2 are constrained to sum to one. This is the "convergence" restriction.

restriction so that the model is stable in steady-state experiments, as discussed above.[37]

37. The mean errors for the restricted model in table 11, column 1, and the unrestricted model of column 3 are 0.1 percent and −1.8 percent respectively. The root mean-squared errors for the restricted and unrestricted models are 0.4 percent and 2 percent respectively.

Moreover, the restrictions save on estimated coefficients. This advantage becomes especially important for the shorter sample periods over which we estimated the disaggregated models. If we allowed for a less than unitary elasticity, our approach would be to separate the nominal scale variables into their real and price components, allow for a less than unitary elasticity for the real scale variable, and impose homogeneity of degree zero of real money demand with respect to the price level variable. Such a specification would increase the number of parameters significantly. It is also interesting to observe that our restricted velocity specification tracks M2 more closely during the 1986:3-1988:1 out-of-sample period than does an unrestricted specification.

12. Elasticities of M2 to selected variables, quarterly aggregate model

Quarters after shock	Opportunity cost	Scale variable[1]	Market interest rate[2]	
			Upward	Downward
	(1)	(2)	(3)	(4)
0	−.008	.26	−.022	−.023
1	−.022	.60	−.056	−.055
2	−.034	.93	−.089	−.084
3	−.045	1.10	−.113	−.102
4	−.052	1.16	−.128	−.112
6	−.058	1.13	−.136	−.111
8	−.059	1.06	−.131	−.099
10	−.059	1.01	−.122	−.081
12	−.058	1.00	−.115	−.081
Long run	−.058	1.00	−.06	−.06

1. In computing the elasticity for the scale variable, GNP and personal consumption expenditures are changed in tandem by the same percentage.

2. These are elasticities with respect to the federal funds rate; they incorporate endogenous responses of the Treasury bill rate and deposit rates.

Table 2

Vector Error Correction Model
U.S. M2, GNP, GNP Delfator, 1956-89

$$X = \begin{bmatrix} \text{lnM2} \\ \text{lnGNP} \\ \text{lnP} \end{bmatrix}; \quad \text{spread} = \text{RM2} - \text{RTB}$$

$$\Delta X_t = \alpha + \beta_1 D66 + \beta_2 D79 + \beta_3 D82 + \sum_{i=1}^{2} \delta_i \Delta \text{ spread} + \sum_{i=1}^{2} \gamma_i \Delta X_{t-i} + \phi X_{t-3} + \epsilon_t$$

$$\alpha = \begin{bmatrix} .00366 \\ .08039 \\ .00579 \end{bmatrix}; \quad \beta_1 = \begin{bmatrix} .00185 \\ -.00381 \\ .00449 \end{bmatrix}; \quad \beta_2 = \begin{bmatrix} .00024 \\ .00456 \\ .00258 \end{bmatrix}; \quad \beta_3 = \begin{bmatrix} -.00241 \\ -.00500 \\ .00572 \end{bmatrix}$$

$$\gamma_1 = \begin{bmatrix} .4386 & .0142 & -.0884 \\ .2765 & .0490 & -.1304 \\ .0536 & -.0360 & .3060 \end{bmatrix}; \quad \gamma_2 = \begin{bmatrix} .1649 & .0203 & .1359 \\ .2571 & -.0734 & -.1790 \\ -.0148 & -.0430 & 2369 \end{bmatrix}$$

$$\delta_1 = \begin{bmatrix} .0055 \\ -.0003 \\ -.0018 \end{bmatrix} \qquad \delta_2 = \begin{bmatrix} .0013 \\ .0014 \\ -.0002 \end{bmatrix}$$

$$\phi = \begin{bmatrix} -.0047 & .0047 & .0047 \\ .1521 & -.1521 & -.1521 \\ .0068 & -.0068 & -.0068 \end{bmatrix}$$

CHOOSING A MONETARY AGGREGATE: ANOTHER LOOK

William POOLE
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The SOMC has traditionally summarized its monetary-policy advice in a recommended rate of growth of the monetary base. However, since the SOMC meeting in the spring of 1991, our recommendation has deemphasized the base because rapid growth in currency arising from liberalization in Eastern Europe and the Soviet Union distorted the data. Instead of the base, we have couched our recommendation in terms of M2, but our discussions of the issue of the choice of an aggregate target have been brief. My purpose here is to begin a reexamination of this issue. I say "begin" because the issue is a large and complex one requiring more research than I could complete at this time; we will almost certainly want to revisit the subject in the future.

The need for this review is well-illustrated by recent growth rates of the aggregates. Expressing growth at a continuously compounded rate, over the twelve months ending in July 1991 the St. Louis base grew by 8.61 percent, M1 by 5.87 percent, and M2 by 2.86 percent. By past standards, base growth suggests that monetary policy may be too expansionary, M1 growth seems about right (or perhaps a tad high), and M2 growth seems too low. Policymakers must, if only be default, form a view on which policy implication is correct. The SOMC should also come to a view on which policy implication is correct and, if possible, use the current experience to refine our position on what aggregate is likely to be most reliable in the future.

General Considerations

When I consider the problem of selecting a monetary target I like to keep four general considerations in mind.

1.) The aggregate should be reliably related to nominal GNP.

2.) The aggregate should be defined by some *a priori* principle and not purely empirically. Historically, many economists were attracted to M1 because this aggregate included all transactions assets—currency and deposits subject to check. However, many observers came to believe that the transactions principle, upon close examination, is unsatisfactory because people hold far more currency and checkable deposits than makes sense on transactions grounds. Milton Friedman and Anna Schwartz long emphasized a different principle—they

viewed money as a "temporary abode of purchasing power." That phase has always rung true to me, but has never seemed to provide much *a priori* guidance as to what assets should be included in an empirical definition of money and what assets excluded. As I discuss more fully below, I have reached the tentative conclusion that the assets that should be included are all those that have zero maturity and remain continuously at par with currency.

3.) Closely related to the previous consideration, we should seek a single monetary target and not switch from one to another unless we accumulate compelling evidence of the need for a change. Good science requires that we form hypotheses and evaluate their success; we risk deluding ourselves if we frequently change the empirical definition of money in response to what appears to "work" at any given time. Also, public debate over monetary policy cannot proceed at a highly technical level; we need to promote a consistent position and not confuse people with frequent fine-tuning of our definitions, or frequent changes in target growth rates to reflect special conditions.

4.) The central bank should be able to control the aggregate closely if it chooses to do so. This consideration was important in the 1960s and 1970s when debates raged about the Fed's ability to control the monetary aggregates. The unadjusted monetary base is unquestionably within the Fed's control, and this fact made the base an attractive target. (The St. Louis base adjusted for reserve requirements cannot be controlled perfectly because the adjustment requires data on deposits, which become available after control decisions must be made.) I believe that the control issue is no longer a pressing one; twenty-five years of research and extensive experience both in the United States and in other countries have made abundantly clear that any of the aggregates through M3 can be controlled accurately enough for all practical purposes. The issue is not the *feasibility* of tight control of any particular aggregate but its *desirability*.

The Problem with the Base

Since Friedman and Schwartz published the *Monetary History*, we have known that the monetary base is potentially an unsatisfactory monetary target. Friedman and Schwartz showed that the base remained essentially flat from the peak of business in 1929 to the trough in 1933 while M1 and M2 declined precipitously. This outcome, of course, was a consequence of a flight to currency caused by growth distrust of the solvency of a large number of banks. With the introduction of deposit insurance and the federal government's assumption of responsibility for banking stability, the prospect of another flight to currency disappeared and the Great Depression experience with the base seemed irrelevant for choosing an aggregate to target. Economists reasoned, correctly, that bank runs, if any, would take the form of transfers of deposits to other banks rather than a flight to currency. Transfers of deposits to other banks do not change the relationship of M1 and M2 to the base. Thus, there was good reason to believe that close control of the base, which everyone

agreed was feasible, would yield reasonably close control over M1 and M2. Even if M1, or M2, were a better target than the base, base control would do the job because the relationship between the base and M1 and M2 would be reasonably stable.

However, economists (certainly this one) did not foresee that another problem could arise with the base—that of a greatly enlarged world demand for U.S. currency. This demand has arisen especially in Eastern Europe and the Soviet Union, but also in Latin America. Moreover, as Congress and the Federal Reserve reduced bank reserve requirements in the 1970s and 1980s, currency grew as a fraction of the total base. Figure 1 shows that currency has gone from about 65 percent of the base in 1959 to about 77 percent today. Employing the monetary base as a monetary target today is almost equivalent to employing currency as the target. Given experience in the United States and elsewhere, I do not think it wise to concentrate on currency to the exclusion of the large volume of assets in various types of deposits.

The Problem with M1

The income velocity of M1 (ratio of nominal GNP to M1) rose at a trend rate of about three percent per year from the end of World War II to 1981. This increase was so steady that many economists (including this one) came to believe that M1 velocity could be expected to continue to rise at about the same rate. In fact, M1 velocity fell in the 1980s. My own judgment is that both the rise in velocity before 1981 and the fall after were largely due to interest rates, which trended up before 1981 and down thereafter. However, this issue is still in dispute; many believe that regulatory changes had much to do with the changes in velocity—both the change in trend and the apparently unpredictable fluctuations after 1981.

The principle behind M1 is to distinguish transactions assets from other assets. Empirically, transactions assets defined to be currency, travelers checks, and checkable balances in financial institutions. The distinction between checkable and other balances is now questionable. Many money market mutual funds (MMMFs) permit checks, but only in excess of a minimum size such as $500. Money market deposit accounts (MMDAs) at banks have a restricted number of checks per month. Sweep account arrangements automatically transfer a checking account balance above a certain minimum into a savings account or an MMMF, and transfer funds the other direction when the checking account falls below a certain minimum. A similar arrangement exists for large depositors, whose non-interest-bearing demand deposit may be swept into an interest-bearing overnight repurchase agreement at the end of every day.

The official definitions of the aggregates place MMMFs and MMDAs in M2 but not M1; this classification seems inherently arbitrary. At a minimum, it is not hard to imagine changes in the way people use these accounts that would lead us to want to classify them in M1 without there being any change in the characteristics of the accounts themselves.

Because the distinction between checkable and noncheckable accounts has lost force given the prevalence of automatic sweep arrangements and quasi-checkable accounts, the present dividing line between M1 and M2 has little economic logic. The logic instead calls for a dividing line between time accounts and zero-maturity accounts. By "zero-maturity accounts" I mean all those that can be accessed without notice and at par.

The Problem with M2

By the end of the 1980s many economists believed that M2 velocity was more stable than M1 velocity and would continue to be so in the future. This view depended on both experience and theory. The experience included the greater actual stability of M2 velocity than M1 velocity and observed reallocations of assets between transactions and savings components as regulations first changed and later disappeared. A transfer from, say, demand deposits to savings deposits affects M1 but not M2.

An important piece of theory in this context relates to the interest rate banks will pay on time (and savings) deposits in the absence of Regulation Q interest-rate ceilings. When market interest rates rise (fall), banks will sooner or later increase (decrease) the rates they pay on time deposits. The spread between market rates and time deposit rates will over time be more stable than the market rate itself. This spread is an important determinant of the amount of time deposits people want to hold; if the spread is constant, the amount of time deposits people hold will tend to be constant, other things equal. Demand deposits, on the other hand, pay zero interest by law; the spread between the zero demand-deposit rate and the market rate changes one for one as the market rate changes. Thus, the amount of demand deposits people want to hold will likely change as market interest rates change, creating a possibly unstable relationship between demand deposits and nominal GNP. Currently, the non-interest bearing part of M1—currency, travellers' checks, and demand deposits—are about 64 percent of total M1 but only about 16 percent of M2. The fact that most of M2 bears interest suggests that changes in market interest rates will not cause lasting changes in M2 velocity.

Although the case for M2 initially seems convincing, further examination raises troublesome questions. We can divide M2 into three main classes of assets: 1.) the transactions assets in M1; 2.) all M2 assets other than transactions assets that can be converted to transactions assets at par without delay—these include savings deposits, which can be converted at any time through a visit to the bank, MMDAs, MMMFs, and a few other miscellaneous items; 3.) small time deposits—these are time deposits of less than $100,000 and with maturities of a few days to several years. (Large time deposits are in M3 but not M2.) The distinction between the second and third classes is that small time deposits cannot be converted on short notice to transactions assets at par. Holders of time deposits who want to convert before maturity must bear an early redemption penalty or the extra cost of taking out a loan using the time deposit as collateral.

Small time deposits make up a significant share of M2—about 35 percent at present—as shown in Figure 2. One issue here is that close substitutes for these deposits exist in the market; intermediate bond mutual funds provide one example. Changes in competitive conditions in the financial markets may lead people to switch into or out of small time deposits depending on their yields relative to close substitutes. In fact, such a switch may explain some of the weakness in current M2 growth. Figure 3 shows the small time deposit component of M2 broken out between commercial banks and thrifts. The substantial decline in the thrift component after 1988 reflects the large number of insolvent thrifts being shut down and, probably, depositor unease with many of the thrifts still operating. Some of these time deposits have been moved to commercial banks, but some have probably been moved out of depository institutions altogether. Small time deposits at commercial banks reached a peak in January 1991; by July (latest data available as of this writing) these deposits were about $45 billion lower. I suspect that what is going on is that commercial banks face weak credit demand and a difficult regulatory environment; in this situation, banks are not bidding for time deposits, large or small, and so these funds are being placed outside the depository institutions.

Another problem with the small time deposit component of M2 is that these deposits have a surprisingly long maturity. Figure 4 shows the maturity distribution based on a Federal Reserve sample of commercial banks and federally insured savings banks. Of these deposits, 42 percent have maturities (original maturities, I assume) over one year. These funds do not fit my notion of a temporary abode of purchasing power. Only 7 percent of small time deposits have maturities in the 7-91 day range. Figure 5 shows a time series graph of the available data on time-deposit maturity. (Data on the 7-91 day maturity start in mid 1989).

Further Observations

The market for time deposits functions in fundamentally different ways with and without Regulation Q. Refer again to Figure 2, which shows small time deposits as a percentage of M2 from 1959 to 1991. The sharp upward bend in the small time share in 1966 was clearly a result of the interaction of Regulation Q and rising market interest rates. Banks tried to lure depositors by finding a way to place temporary-abode funds in small time deposits, which had a yield advantage over other deposits, while maintaining ready availability of the funds. Banks initially permitted depositors to redeem time deposits early, but regulators responded by insisting on early withdrawal penalties. Banks could avoid this regulation, in part anyway, by waiving the penalty in defined "hardship" cases and by permitting depositors to borrow against their time deposits at attractive rates.

Under Regulation Q, the competition of time deposits with unregulated non-depository assets was distorted in two ways. First, of course, depository institutions could not adjust time-deposit rates in response to market pressures. Second, the terms of time-deposit contracts, both formal and informal, reflected regulatory avoidance. For example, a bank's service charges and minimum balance requirements on an individual's demand deposit might depend in part on the size of the individual's time deposits in the bank. With the end of Regulation Q and the national spread of NOW accounts, banks have much less incentive to link checkable and time deposit accounts in this way. In sum, under Regulation Q the relative amounts in demand, savings, and time deposits reflected regulation and regulatory avoidance as well as depositor responses to the changing characteristics of these three different types of accounts.

Figure 6 provides another illustration of the importance of regulation. When the regulators authorized the MMDA account in 1983, many depositors converted small time deposits to the new account. Total M2 was relatively little affected but individual components of M2 were greatly affected. We may conclude that under Regulation Q the M2 aggregate had the most stable characteristics of the various aggregates because M2 was relatively little affected by shifts among M2 components occasioned by regulation and regulatory avoidance.

At present, banks have little incentive to pursue regulatory avoidance through ties between small time deposits and other types of deposits. However, banks do have an incentive to link overnight repurchase agreements, savings deposits, and bank-sponsored MMMFs to checkable deposits through automatic transfers. Checkable deposits carry a 12 percent reserve requirement whereas repos, savings deposits, and MMMFs carry a 0 percent reserve requirement. Automatic transfers cannot occur in both directions between checking and time deposits.

Many marketable assets can be accessed quickly through sale. What distinguishes monetary assets from, say, common stock is that monetary assets can be converted to a transactions balance at par. Many marketable assets are highly liquid—they can be converted to checkable deposits very quickly—but they cannot be converted at a price known in advance. This fact must be central to the economic effects of central bank open-market operations that exchange treasury bills for money or money for bills. Open-market operations do not affect the private sector's wealth but only the composition of that wealth. Thus, it seems to me that the fundamentals of monetary theory call for an empirical definition of money that is based on the distinction between zero-maturity assets payable at par and all other assets. We should also note that all goods with constant relative prices can be aggregated, which means that financial assets that always trade at par with each other can be aggregated into a simple-sum aggregate.

The economic effects of open market operations could not arise if money and, say, treasury bills had the same yield because the two assets would then be perfect substitutes at the margin. In fact, zero-maturity assets have a lower yield because of the costs incurred by financial institutions that issue them. That is, making good on a contract to convert zero-maturity balances into cash, or cash into such balances, on demand is not a costless operation. A financial institution that offers this service must maintain a fraction of its portfolio in very short maturity assets that can be bought and sold cheaply. The institution must also find capital providers willing to bear the risk of making good on the contract at a time when the value of the assets in the portfolio is depressed either because interest rates have risen or some of the assets have defaulted. Because of these costs of creating zero-maturity assets, those who hold them receive a lower yield than they otherwise would. People hold zero-maturity assets up to the point where the marginal services they provide equal the cost in terms of the lower yield.

These considerations point to an aggregate consisting of all the zero-maturity assets in the economy. At present, the zero-maturity assets in M2 include essentially all such assets in the economy; my proposed target aggregate is then M2 less small time deposits, which I denote "M2-ST." Figure 7 shows M1, M2, and M2-ST from 1959 to 1991 and Figure 8 shows the 12-month growth rates of the same aggregates from 1960 to 1991. I have not made any income-velocity calculations for M2-ST, but from Figure 7 we know that over the 1959-91 period as a whole velocity of M2-ST grew a bit more rapidly than the velocity of M2. Also, the behavior of M2-ST growth in the early 1980s is more consistent with the severity of the 1981-82 recession than is the growth

of M2, which did not decline at all. However, the moderate decline in M2 growth before the 1990 cycle peak seems more in keeping with the mild nature of the recession than is the much larger decline in the growth of M2-ST.

Another way to view the logic of M2-ST is to note that there are many assets outside M2 that have essentially the same characteristics as small time deposits. Short-dated bonds provide a quantitatively significant example. To include time deposits in our definition of money while excluding short-term bonds we would have to give great weight to two major differences between these assets. First, most time deposits are federally insured. This fact distinguishes time deposits from private bonds but not from treasury bonds. Second, time deposits are held in financial institutions that also issue zero-maturity deposits; this fact may affect the way holders of time deposits regard them.

Having said all this, I would not underestimate the legacy of regulation. Banks and their customers are still adjusting to the current environment of no Regulation Q ceilings and zero reserve requirements on time and savings deposits. I doubt that banks' patterns of adjusting time and savings deposit interest rates and terms are entirely free of practices developed during the long period of sustained regulatory constraints. For this reason, changes in market conditions of various kinds may continue to cause reallocations within the current definition of M2. However, if my argument is correct, these same changes in market conditions will eventually occasion different responses that make M2-ST the more stable aggregate.

Implications of M2-ST for Current Monetary Policy

Over the twelve months ending July 1991, M2-ST grew at a rate of 6.06 percent, compared to 2.86 percent for M2, which is just slightly above the lower end of the Fed's announced target range for M2 of 2.5 to 6.5 percent growth. My bet is that M2-ST is providing a more accurate picture of monetary conditions than is M2 and will continue to do so. The thrift industry will continue to decline for several years; commercial banks may well continue under considerable pressure. The market will reallocate credit flows around floundering banks and thrifts, but the process will not, I believe, have much monetary significance.

The M2-ST aggregate has not, however, been the subject of extensive research. I would, therefore, not abandon M2 in framing my views on the stance of monetary policy. However, I believe that we should watch both M2 and M2-ST and should recommend that the Fed condition its adherence to an M2 target by the behavior of M2-ST. Applying these thought to today's conditions, I would not recommend that the Fed lower interest rates aggressively to raise the growth

of M2; I think M2 growth at the bottom of its target range is acceptable. The growth of M2-ST is satisfactory, and other information leads me to believe that the economy is on a sound recovery path.

Figure 1
Monetary Base (St. Louis Fed Definition) and Currency, 1959 - 1991

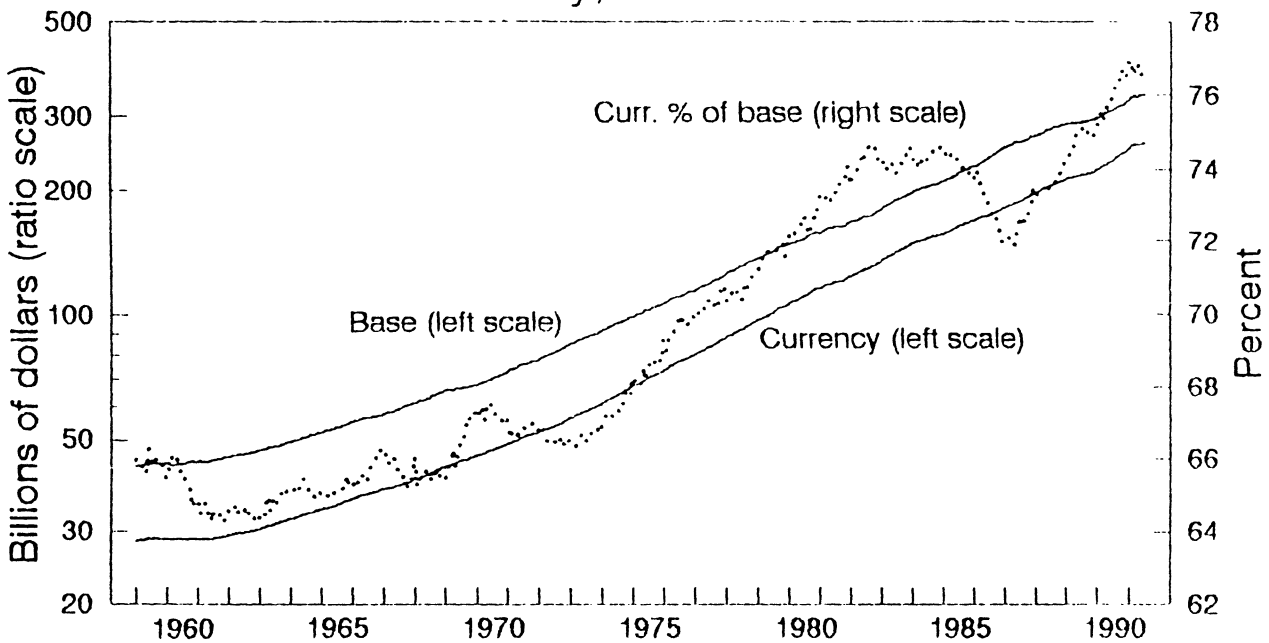


Figure 2
Small Time Deposits as Percent of M2
1959 - 1991

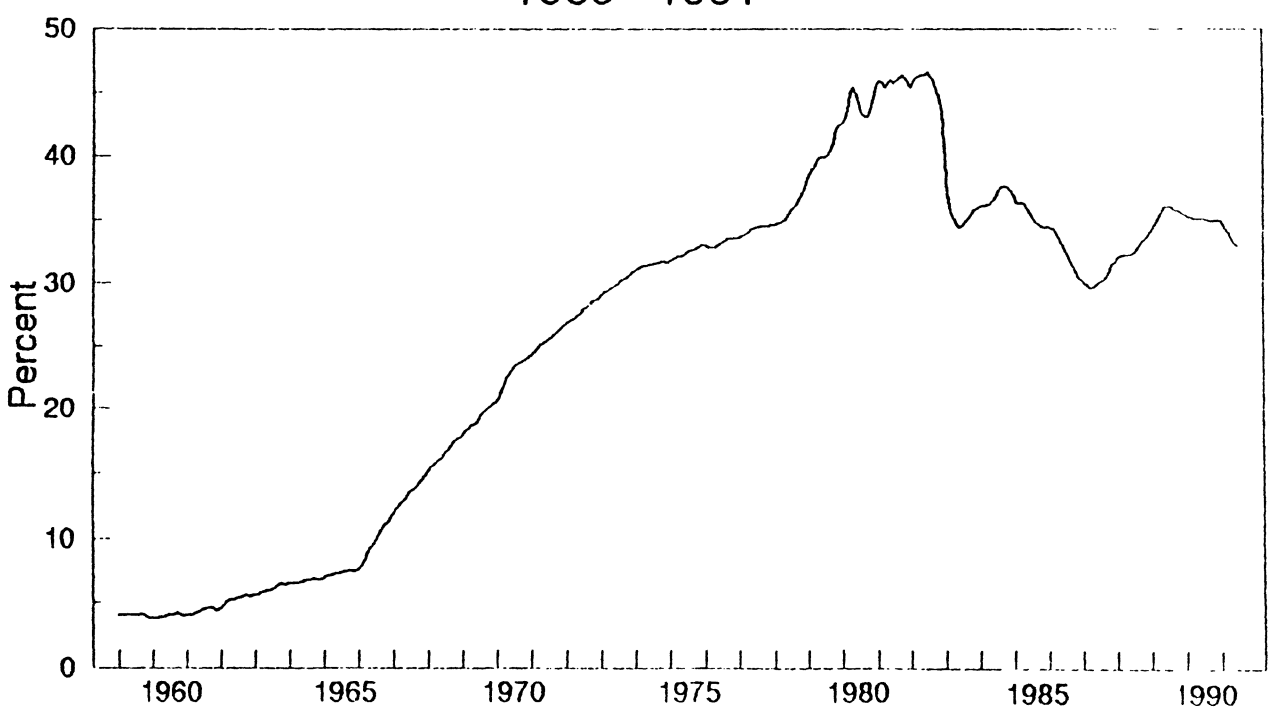


Figure 3
Small Time Deposits, Cor . Banks and Thrifts
1980 - 1991

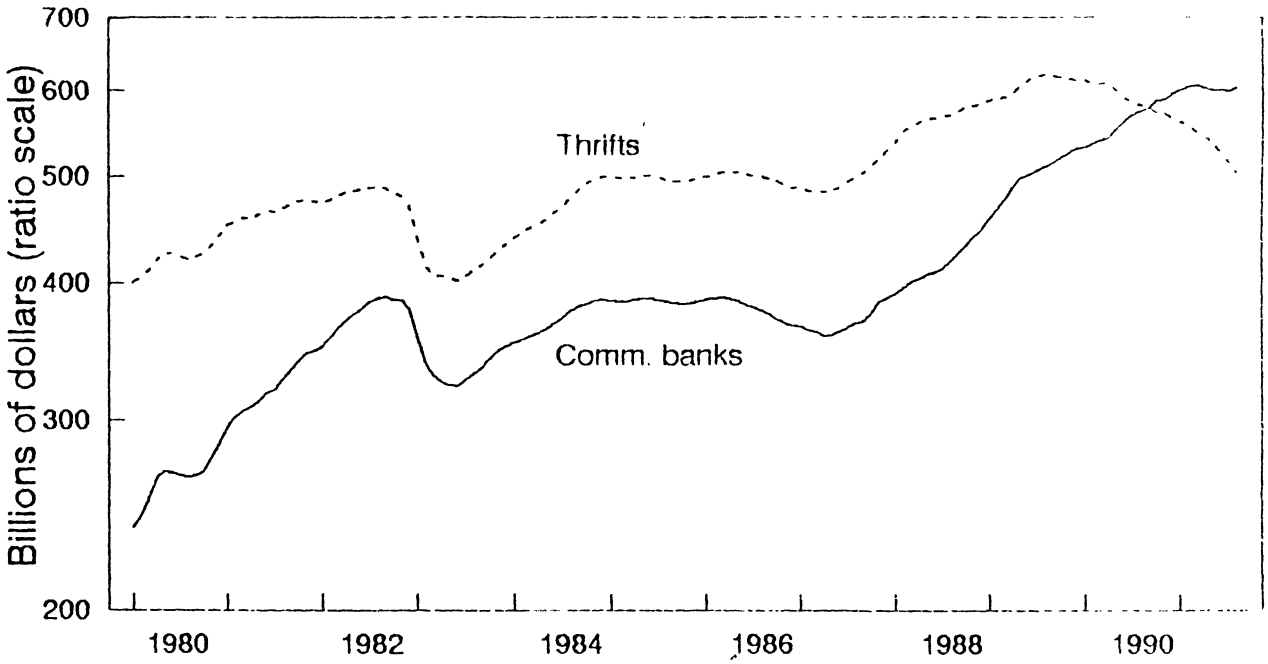


Figure 4
Maturity Distribution of Small Time Deposits
July 1991

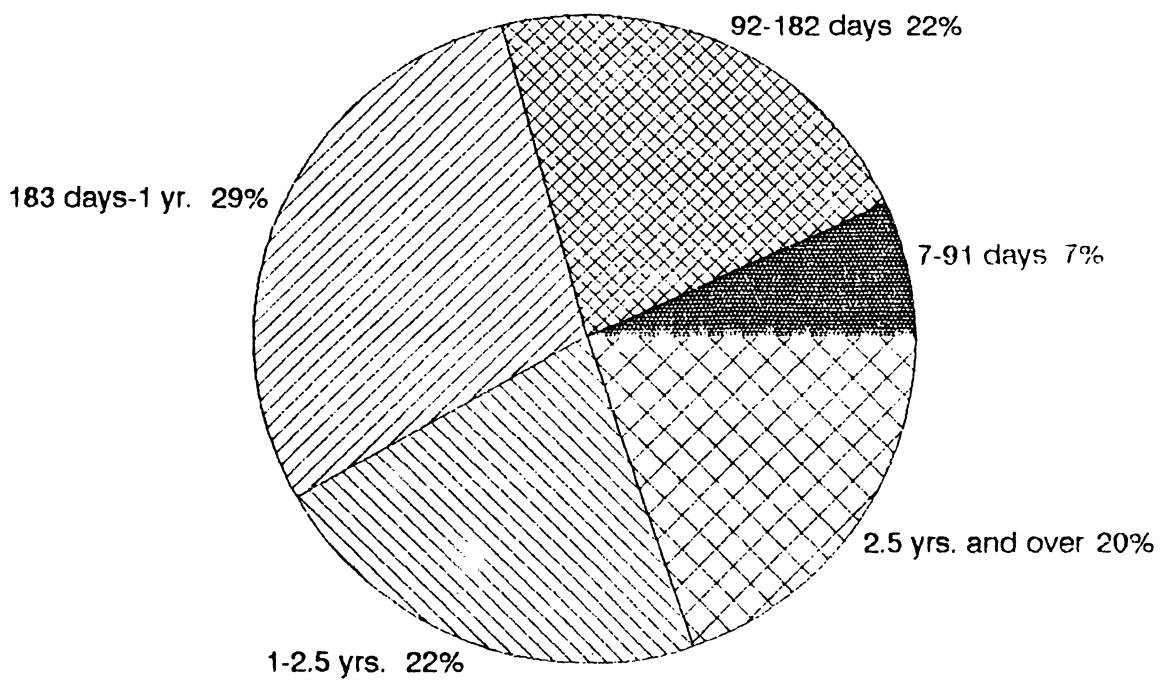


Figure 5
Small Time Deposits by Maturity
1983 - 1991

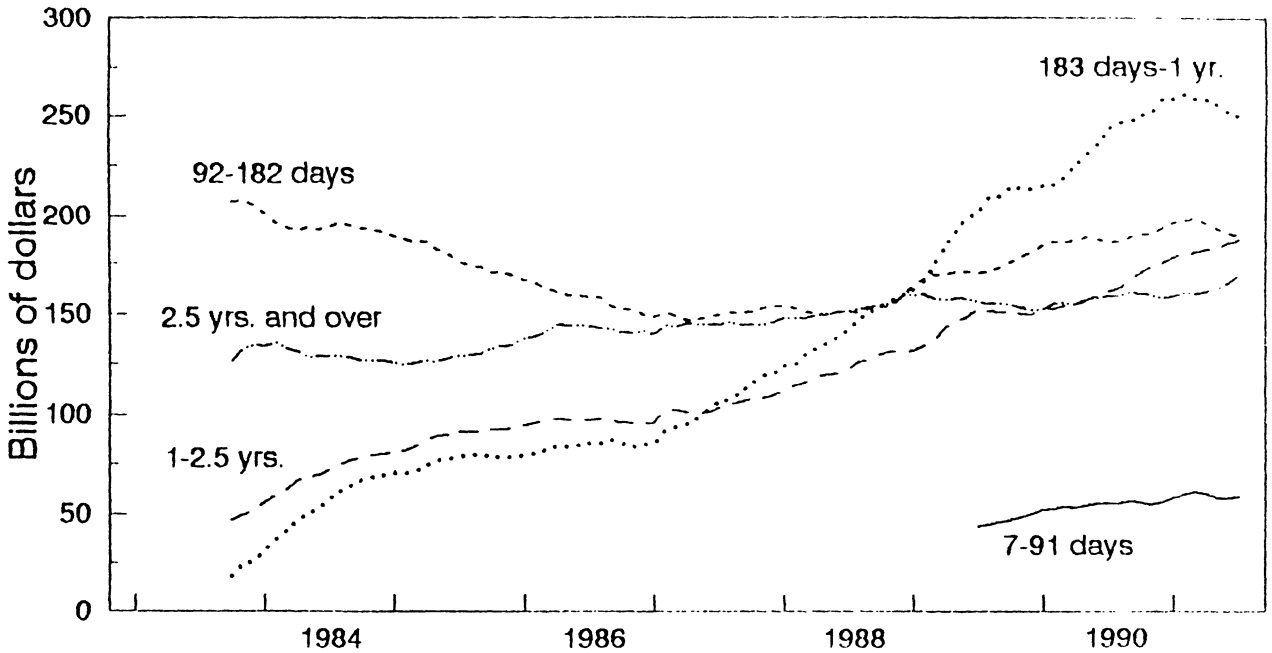


Figure 6
Selected Monetary Aggregates
1978 - 83

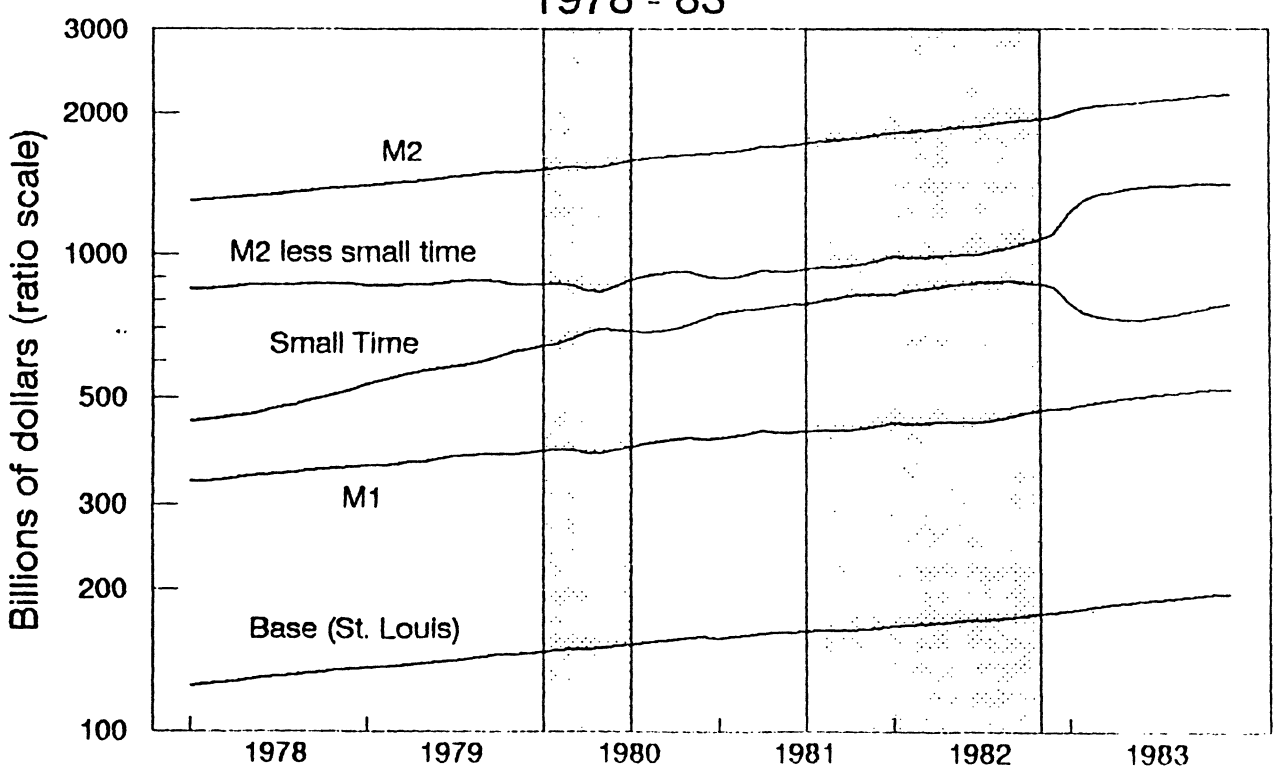


Figure 7
M1, M2, and M2 Less Small Time Deposits
Levels, 1959 - 91

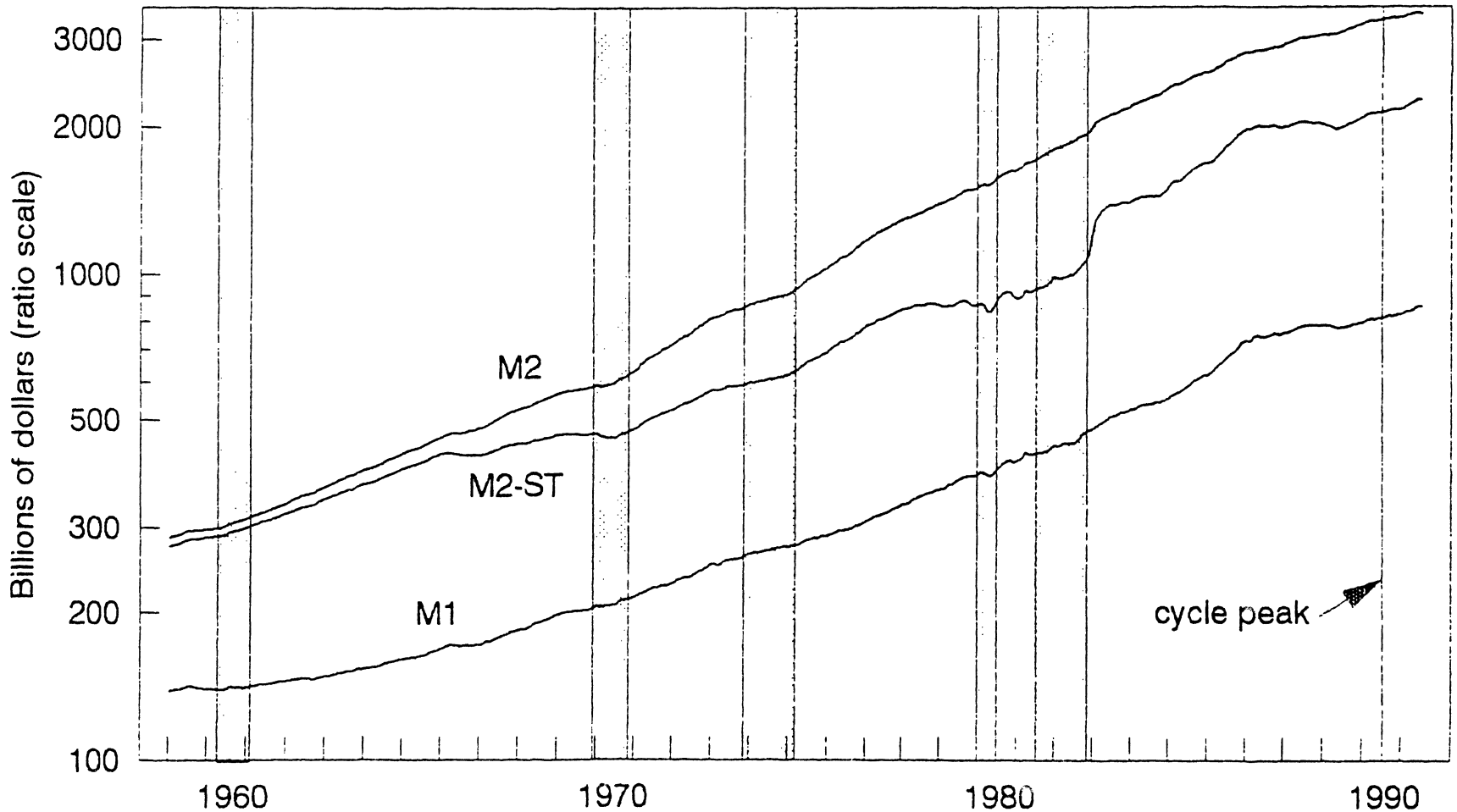
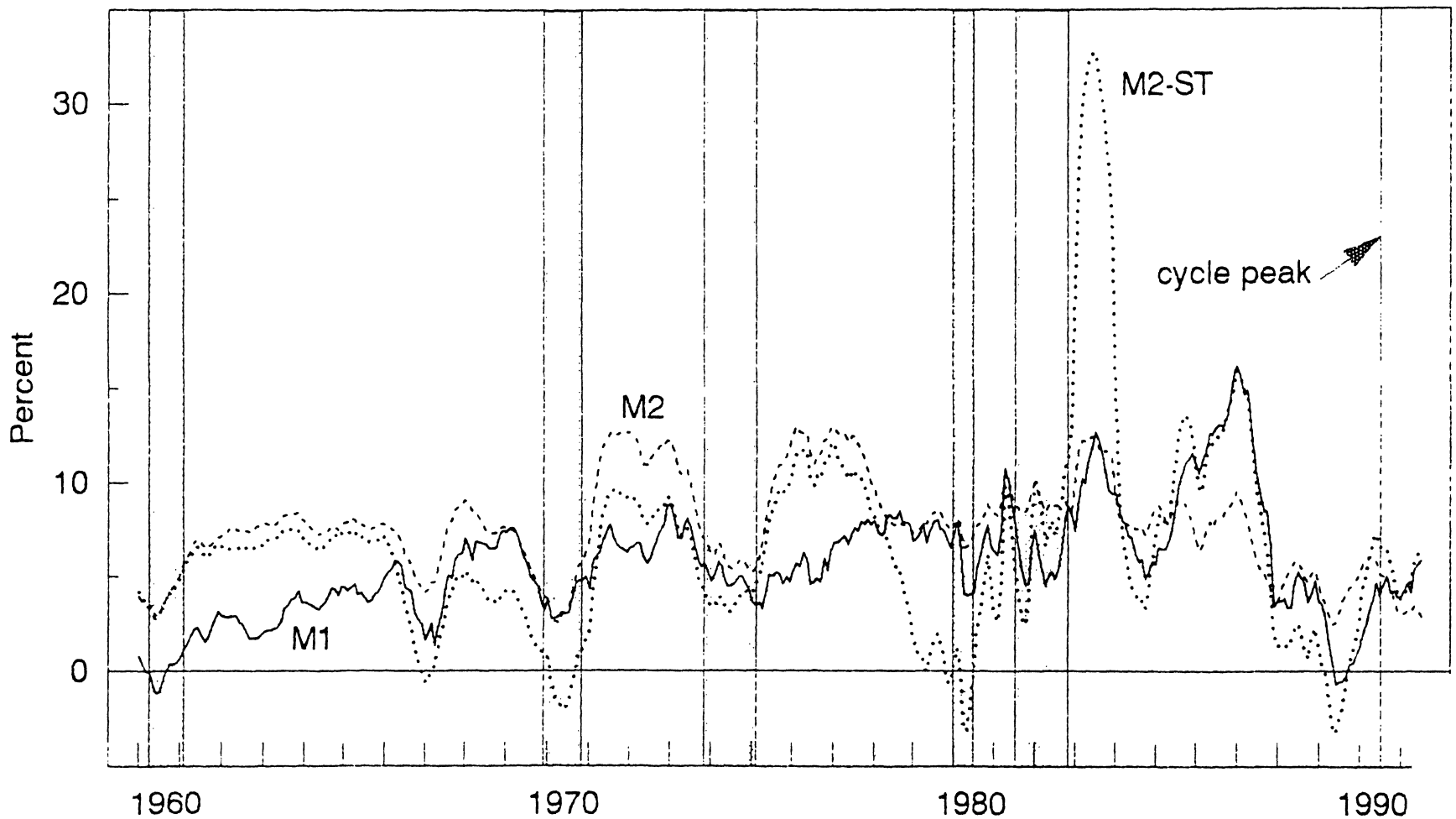


Figure 8

M1, M2, and M2 Less Small Time Deposits

12-Month Percentage Changes, 1960 - 91



ECONOMIC POLICY TOWARDS RUSSIA AND THE SOVIET REPUBLICS

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There is growing pressure on Western governments to move quickly and make available large sums of economic resources to aid the Soviet Union. Daily we read about the prospects for Soviet economic collapse: The risks of major food shortages during the coming "harsh" winter (they must have better weather forecasters than the U.S.) primarily due to a distribution system where food rots before it reaches the processing plants and not the lack of grain or other agricultural products; the risks of hyperinflation caused by the rapid printing of money to meet payrolls and other expenditures of state-owned enterprises that produce goods that no longer have markets. While no one doubts the sincerity of those arguing for aid, there is a strong case to be made that loans or credits to either the central government or the governments of the new republics is not in their interest or the interests of the West.

Prior to the attempted coup, most proposals for economic assistance involved direct loans or credits to the central Soviet authorities. In exchange for this assistance, the Soviet government was to embark on a step by step program of economic reform designed to transform their inefficient command economy into a market economy and bring the Soviet Union into the world trading community.

The break-up of the Soviet Union we have witnessed over the past month requires a complete re-assessment of all such strategies. A major problem is that it is no longer clear who we are to extend credits to. Do we negotiate with the new central government or the individual republics on a case by case basis? The emerging central government appears to have little power to affect any sort of change. Dealing with the governments of the individual republics is also questionable. Are these governments stable? Do they have the taxing authority to pay back loans? Are those individuals in power any better than what existed before? In the Republic of Georgia, for example,

there are riots protesting the actions of their President who they accuse of being a dictator. Moreover, who will have the responsibility for financial and currency arrangements? It seems clear that proposals to aid the Soviet Union, as such, are no longer relevant.

Even if the relationship between the republics and a central government (should it exist) were clear, the more fundamental question remains. Is government to government aid an effective means of promoting the transition to a market economy?

There is no doubt that it is in the interest of the West for the republics that comprised the Soviet Union to move quickly towards market-focussed economies. More importantly, we should not forget that it is in their interests as well. Now, with the collapse of the Communist Party and its strangle hold on the government and economic decisions, the opportunities exist for individual initiative to re-assert itself. The people and emerging government officials clearly see that moving to a market economy is the only path to sustained economic progress. On what grounds, however, should the West believe that bribing the government will speed-up the process or providing massive amounts of aid to the government will result in an efficient allocation of those resources? Experience does not offer much support for such a belief.

It is often claimed that the model ought to be the Marshall Plan which assisted in the reconstruction of Europe after World War II. Unfortunately, the analogy is not a good one. The economies of Europe were essentially market economies before the War and during the War, so the people were both knowledgeable and experienced. At that time the critical requirement was to rebuild physical capital. This is not the current situation in the Soviet republics. They need experience and knowledge in market organization as well as physical investment. Moreover, while the Marshall Plan is generally viewed as a major success, it is not clear that private initiative would not have achieved similar results.

Many observers argue that there needs to be government aid primarily in terms of loan guarantees to reduce the risk to Western investors. But it is unlikely that this is a good idea. Taxpayer guarantees are responsible for the S & L crisis in this country. Why should the U.S. taxpayer be exposed to such risks? Shouldn't those parties engaged in the investments recognize the risks and negotiate the terms accordingly?

The problems with the economies of the Soviet republics are unlikely to be solved through massive amounts of government aid dispensed through a central government or even through the republics. The money is likely to only serve to entrench the existing bureaucrats. Besides, the

governments do not have the knowledge to implement the market structures required. This would amount to just another form of the command economy that has already failed. Decentralization of economic decision-making is what is needed not centralized allocations.

What is desperately needed in the Soviet economy is the knowledge that can best be brought into the country through private contracts: individual companies from the West contracting with private groups in the Soviet Union in ways that bring valuable knowledge of operating and organizing markets. Of course to entice Western firms into the Soviet Union, there will have to be many changes. These changes are the key features to success of the economic reform of the Soviet economy.

The governments of the Soviet republics mus[illegible]rm their commitment to private property and the privatization of industry allowing domestic [illegible]es to adjust to world prices and by establishing a system of commercial law that is broadly in keeping with the other Western countries. If private companies are to engage in commercial transactions with either private parties or governments in the Soviet republics, there must be a clearly described set of laws that govern such transactions. Uncertainty about the interpretation or adjudication of contractural issues and fears of potential expropriation can make the costs of doing business prohibitive and thus discourage investment.

Both private and state-run enterprises must be prepared to attract capital by selling substantial assets or future income streams to foreign investors. In many ways the Soviets are very wealthy. Their natural resources such as oil and gold are very large. Given the risks of investing in the Soviet republics, the Soviets must be willing to sell assets and claims to future income streams at prices that attract foreign investors. Direct foreign investment is absolutely essential to the success of economic development. The reaction of some governments to close economic borders or pursue merchantilist strategies will not promote reform or development.

Russia and the republics must quickly agree on monetary arrangements. Whether they involve one currency or many the principle of convertibility is essential. There can be no convertibility as long as rubles are being printed to finance the massive government deficits. Once again, the Soviets could choose to stabilize their currency by selling assets such as state-owned housing and enterprises. Convertibility and credibility can then be achieved quite easily by pegging the exchange rate to some stable currency. A convertible currency is essential if the Soviet economy is going to participate in world trade.

The U.S. and other Western nations can help the Soviets achieve these goals through technical assistance and perhaps management training and education. But, these are objectives that the Soviets must set for themselves and achieve themselves. Otherwise, economic reform cannot be sustained.

THE MISUSE OF THE FED'S DISCOUNT WINDOW

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The lending practices of the Federal Reserve Banks have allowed hundreds of nonviable or insolvent banks since 1985 to remain open long beyond the point of viability, according to extensive data on discount window use that the Federal Reserve furnished in May 1991 at the request of the House Banking Committee. In effect the Federal Reserve has conducted a policy of forbearance. Because of the delayed resolution of failures, the ultimate result of forbearance—a lesson of the savings and loan industry debacle—has been to increase the losses borne by the insurance fund and taxpayers.

Key Features of the Discount Window

Three types of loans are advanced at the discount window: adjustment, seasonal, and extended credit. Adjustment credit may be extended to meet reserve requirements or to avoid an overnight overdraft and is limited to at most a few business days. Seasonal credit is available to small banks for that part of the year when their loans are regularly high. For extended credit, the guidelines require "a plan for eliminating the liquidity problem of the institution" and "appropriate weight . . . given to the financial condition of the institution." No time limit is set on extended credit. According to the House Banking Committee Staff, the Fed "routinely" extends credit to institutions the financial condition of which has not been appropriately weighed by it.

All discount window credit is subject to collateral requirements. What is eligible collateral is the decision of each Federal Reserve Bank. All of them, however, apply varying discounts to the par value of the collateral they accept, and the ratio of loan to collateral value is not uniform across district banks.

The collateral the Federal Reserve Banks accept is usually the most liquid, high-quality assets the borrowing institutions hold. When the borrowers are finally closed, the FDIC repays the Federal Reserve Banks in cash ahead of all other creditors.

With the haircut of the collateral, these are riskless loans for the Fed. Hence there is no incentive to shut the discount window. George Kaufman has proposed that the Fed be permitted to lend only on an uncollateralized basis to problem-ridden institutions, on the theory that if the Fed's own money were at risk, it would be hesitant to lend. I favor a different approach to which I refer below.

Condition of Borrowing Institutions

Of the 530 borrowers from 1985 on, that failed within three years, 437 were classified as most problem-ridden. Regulators grade banks on their performance, according to a scale of 1 to 5, the best performance graded a 1, the worst a 5. The grades are based on five measures known by the acronym of CAMEL for Capital adequacy, Asset quality, Management, Earnings, Liquidity. The 437 institutions that were most problem-ridden had a CAMEL rating of 5, the poorest rating; 51 borrowers had the next lowest rating, CAMEL 4. One borrower with a CAMEL rating of 5 remained open for as long as 56 months. The average length of time the whole class of CAMEL 5 institutions was allowed to continue operations was about one year.

At the time of failure, 60 percent of the borrowers had outstanding discount window loans, nearly all of which were extended credit. These loans to insolvent institutions increased daily, new borrowings rolling over balances due. In aggregate the loans of this group at the time of failure amounted to $8.3 billion, of which $7.9 billion was extended when the institutions were operating with a CAMEL 5 rating. Three months prior to failure, borrowing of all 530 institutions peaked at $18.1 billion.

Some Federal Reserve staff members have asserted that it is impossible to know whether an institution that applies for discount window help faces a liquidity or solvency problem. Since CAMEL 4 and 5 ratings are known with little lag time, it should not be a problem to distinguish between an illiquid and an insolvent bank.

Deterioration of Condition of Borrowers as Result of Loans

By turning over to their Federal Reserve Banks as collateral their best assets, the borrowing banks are worse off. Case studies of banks that were borrowing at time of failure show that the loans enabled uninsured depositors to withdraw their funds without taking a loss. Uninsured deposits in this way were covered just as if they were insured. Moreover, the weakened institution increased its borrowing as its condition worsened. When it was finally taken over by the regulator, it had higher operating losses than at the start of the loan arrangement.

Reforming Discount Window Practices

Existing practices delay timely resolution of insolvent institutions, and thereby increase costs to the insurance fund and taxpayers. Existing practices also contribute to moral hazard.

The main avenue for discount window lending to insolvent institutions is extended credit. The board should forthwith amend Regulation A that prescribes the authority, scope, and purpose of Federal Reserve lending to depository institutions. It should explicitly declare that no Federal Reserve Bank may advance extended credit to an institution with a CAMEL rating as low as 4 or 5.

The evidence of the savings and loan industry collapse has made clear that delayed resolution of failures accounts for the largest losses to the federal insurance agencies. Continued operation of insolvent institutions permits the generation of losses and also encourages risk-taking by solvent institutions since the penalty of insolvency appears to be minimized. The Federal Reserve should not be in the business of extending loans to insolvent institutions.