A Price Stability Objective
for Monetary Policy
President’s Message

In recent years, members of Congress, monetary policymakers and economists have argued that the Federal Reserve System should commit to a single long-run goal of price stability for monetary policy. While the motivations of these voices for change are disparate, all focus on a single underlying problem: Under the current system, the Federal Reserve has too many goals, some of them mutually incompatible, and this might inhibit the Fed from doing all it can to enhance real incomes and raise the standard of living in the United States.

But while there may be a growing consensus on the need to reassess Fed goals, many questions remain. What types of improvements in economic performance can be expected from a more focused monetary policy? What criteria should be used to evaluate performance with respect to the goal? And what kinds of details might be important in moving to such a program? Although we may not have the definitive answers to all these questions, I believe that the arguments on the pages to follow establish a strong case for price stability as the sole goal of the Federal Reserve’s monetary policy.

Before we begin, however, I want to recognize the contributions and counsel provided by the following directors who retired from the St. Louis and Branch boards in 1994: Henry G. River, St. Louis; and Barnett Grace, Little Rock. As usual, we have benefited greatly from their input on local economic conditions, as well as their private-sector management perspective in which quality and efficiency are paramount.
Too Many Goals

The main monetary policymaking arm of the Federal Reserve is the Federal Open Market Committee (FOMC), which meets eight times each year to deliberate about monetary policy. After each meeting, the FOMC issues a directive, which contains instructions for policy until the next meeting, to the open market desk at the Federal Reserve Bank of New York. A portion of the directive—reaffirmed at each meeting—is a statement of what the Committee is trying to achieve through its monetary policy actions. For some years, the FOMC's policy directive has stated that the Committee "seeks monetary and financial conditions that will foster price stability and promote sustainable growth in output...." At times, though not in the recent past, the Committee has included the phrase "and contribute to an improved pattern of international transactions."

These short statements illustrate the main problems with the Fed's current setting of goals. First, as many as three objectives are mentioned, maybe more depending on how one interprets the phrase "pattern of international transactions." And second, the objectives are vague. How can outside observers tell if the Committee succeeded or failed to "seek conditions"? If we want to judge the FOMC based on outcomes, what is the meaning of "price stability," "sustainable output growth" and "improved pattern of international transactions"? Perhaps more important, what is the tradeoff between the various goals—to what extent is one goal to be pursued at the expense of others? These
are some of the questions being asked by those who feel it is a fundamental problem for monetary policy that the goals currently in use are too numerous and too vague.

One might counter that the Fed is a creation of the federal government and, further, that the policy directive can only reflect the fact that Congress, most recently through the Humphrey-Hawkins legislation of 1978, has assigned the Fed multiple goals. To some extent, that is exactly the point: The problem of numerous objectives for monetary policy arises in part because the legislation addressing this issue is vague, ill-defined and somewhat dated. From time to time in recent years, legislation has been introduced in Congress that would give the Fed a single long-run goal of price stability. But the main argument here concerns not the politics of the situation, but the appropriateness of the Fed’s current goals.

The first, and overriding, problem is that there are too many goals. The Fed implements virtually all monetary policy decisions through a single type of action: The open market desk adds or removes reserves from the banking system. As common sense suggests, it is difficult to try to achieve multiple goals with a single policy lever. And furthermore, from a macroeconomic point of view, the Federal Reserve’s only power in the long run lies in its ability to control the monetary base, which in turn is a major influence on the monetary aggregates, nominal demand growth and the price level. Both cross-country studies and the U.S. historical record demonstrate that, in the long run, inflation reflects the past, present and expected future growth of the money supply. Short-term fluctuations around the trend rate of inflation typically correspond to such unusual factors as weather, natural disasters and oil embargoes. Although these factors can significantly affect prices, their effects tend to be transitory, ending when supply returns to normal.

Figure 1 illustrates the long-run connection between the M2 measure of money and inflation. In this figure, money growth minus output growth is on the horizontal axis and inflation is on the vertical axis. Both the inflation and money growth data are moving averages so that they are free of the influence of factors that only temporarily
influence the inflation rate. This figure illustrates an important fact: Higher inflation tends to be associated with higher money growth. Money growth, in turn, is influenced by the Fed's decisions concerning the supply of base money. Economists often cite evidence like that in the chart to argue that, in the long run, the inflation a country experiences is determined by policy actions that influence money growth.

The Fed implements virtually all monetary policy decisions through a single type of action: The open market desk adds or removes reserves from the banking system.

While this evidence suggests that a central bank like the Fed has considerable control over long-run inflation trends, there is much less evidence that a central bank can reliably influence real output growth, the other goal most consistently mentioned in FOMC directives.

Some argue that the goal of "sustainable growth in real output" can be attained by enacting a stabilization policy. The notion is that when real output is expected to grow at less than its trend pace, the Fed should pursue an easier policy—lowering short-term nominal interest rates, hopefully encouraging investment and consumer spending and causing real output to grow more rapidly. The opposite tack would be taken when output is expected to grow faster than its trend pace. Importantly, in conducting such a stabilization policy, it is expected growth in output that matters because lags between monetary policy actions and their effects on real output growth are typically thought to be anywhere from six months to a year. This creates a key problem with the stabilization approach to monetary policy: It causes policymakers to rely heavily on forecasts of future real activity. Unfortunately, such forecasts are notoriously inaccurate.

The notion that we do not have sufficient information to implement a successful stabilization policy is an old one, and the fact that forecasts are poor is often acknowledged, but just as often ignored. So it might be useful to ponder for a moment the question of the accuracy of real output growth forecasts from quarter to quarter.

Figure 2 shows forecast errors for real GDP growth, two quarters ahead, in Blue Chip Economic Indicators, a monthly newsletter that summarizes the forecasts of 50 or so top prognosticators of the U.S. economy. In the figure, the date of the forecast, which ranges from January 1980 through December 1992, is given on the horizontal axis. Plotted points represent the forecast error associated with the two-quarter ahead "consensus," or average, forecast of the Blue Chip group. The main point is simple: These errors can be very large. It is not unusual for them to exceed 3 percentage points, for example, and some of the largest errors exceed 9 percentage points. What is worse, the largest errors occur around times of recession, such as 1980-82 and 1990-91,
just the points when a stabilization approach to policy relies most on the accuracy of the forecast as a guide to policymaking. Because forecasts can be quite inaccurate, one should place a near-zero reliance on them in making policy; yet stabilization policy requires heavy use of such forecasts.

Perhaps the most persuasive argument against the stabilization approach to monetary policy is that it is simply unwise to direct single-lever monetary policies at multiple variables.

But perhaps the most persuasive argument against the stabilization approach to monetary policy is that it is simply unwise to direct single-lever monetary policies at multiple variables. It is also unwise to direct policy at variables over which the Fed has no long-run control, like real interest rates, unemployment and real GDP growth. There is essentially no systematic long-run relationship between any of these variables and either monetary factors or the price level. Moreover, examples abound of how the price level can be destabilized when monetary policy is directed toward such inappropriate objectives. During both world wars, for instance, efforts to keep interest rates unduly low fueled inflation. Similar efforts to keep interest rates low in the late 1970s, to lower unemployment and cushion financial institutions from disintermediation, backfired: Monetary growth and inflation accelerated, causing nominal interest rates to rise to unprecedented heights.

These arguments suggest that output stabilization is an unwise goal for monetary policy. It is a difficult goal to achieve, and the likely gains to U.S. citizens are small. Moreover, such a policy can easily end up causing more harm than good.
Why Price Stability?

A comforting feature of a single long-run goal of price stability for monetary policy is that achieving the goal is feasible. The evidence that, in the long run, countries have considerable control over their trend inflation rates is abundant and clear. But achievable goals are not desirable per se. A long-run goal of price stability, however, has added benefits, in part because higher inflation is often more uncertain inflation. By allowing markets to function without confusing price signals caused by uncertainty about inflation, the Federal Reserve can act to raise the welfare of participants in the economy.

Since the time of Adam Smith, economists have used the term “invisible hand” to describe how markets change relative prices to signal resource allocation. Inflation disrupts this market process and makes it less efficient. It is difficult for a participant in the economy, seeing a rise in a particular price, to discern whether that price change is due to changing supply and demand conditions for that good or to a change in the overall level of prices. By masking the signals given by changes in relative prices, inflation distorts decisions about where to use resources, what to produce, what to consume, where to invest, what to save, what to throw away, even what to study—the substantive decisions on which economic well-being depends.

But it is not just inflation uncertainty that is the problem. Even correctly anticipated inflation can cause economic duress. An example of this is the U.S. tax code. Because the code is not fully

EVOLUTION TOWARD A PRICE STABILITY OBJECTIVE

The U.S. Constitution gives Congress the responsibility for both taxation and the monetary standard, the latter having been delegated to the Federal Reserve System under Congressional oversight. This delegation occurred in 1914 with the founding of the Fed. At the time the Federal Reserve was created, the United States was on a gold standard and the price level was determined by factors affecting the demand for and supply of gold. Although the price level was stable over the long run, there were substantial short- and medium-term fluctuations. The Federal Reserve was created to provide an elastic source of currency, to smooth out extreme seasonal and cyclical fluctuations, within limits, by freely exchanging gold for currency at a fixed price.

The gold standard provided the anchor for long-term price stability. During the 1930s, the gold standard was abandoned by almost every nation, and much of the history of monetary policy since then has been a search for a new standard to anchor the value of money. The post-World War II Bretton Woods agreement was an attempt to return to a modified gold standard, with the U.S. dollar tied to gold and other currencies tied to the dollar; that system was abandoned in the 1970s as inflation accelerated in the United States and the overhang of foreign-held dollars made the existing exchange rates untenable.

On an unbacked paper money standard, the price level is determined by the way the central bank supplies the paper money. Understanding this, Milton Friedman, among others, advocated stabilizing the growth rate of the money supply around the growth rate of the real economy as a way of stabilizing the price level.
A long-run goal of price stability has added benefits, in part because higher inflation is often more uncertain inflation.

Indexed for inflation, even moderate inflation can double effective tax rates on capital. The effect of the interaction between taxes and inflation is so large that many people advocate indexing the tax rate on capital, and such indexing has been widespread in countries with high rates of inflation. In the United States, indexation of the tax rate on capital gains has been slow in coming, but more to the point, indexation is an example of a policy change—made at the cost of considerable political resources—that is simply a response to another policy. If inflation were zero—and were credibly expected to remain zero—adjustments such as indexation would not be needed.

Anticipated inflation also wastes resources by creating activity that would not occur in the absence of inflation. For instance, with high inflation and high interest rates, buyers have an incentive to delay their payments while sellers have an incentive to speed them up. Both expend resources to overcome the efforts of the other. Resources are also hired to predict inflation and its effects. In the 1960s and 1970s, financial institutions sometimes found that predicting inflation correctly was as important as predicting the profitability of individual projects or the creditworthiness of individual borrowers. The end result was that firms paid less attention to the economic fundamentals in their industries and more attention to government policy.
What Do We Want from Monetary Policy?

The ultimate goal of economic policy is to achieve the highest standard of living possible for American citizens. But the Fed's direct influence over the long-term trends in output and employment is negligible. These trends instead depend largely on population and technology growth, the skill and education levels of the work force and the accumulation of capital. The only lasting contribution monetary policy can make to the real output growth trend is to create an environment conducive to growth, one in which relative price signals are clear and markets are not distorted by high and variable inflation.

So what we want from monetary policy is both a lower and a more predictable inflation rate. There is a growing consensus among policymakers around the world that the long-run objective of monetary policy is appropriately price stability.

A series of inflation targets would provide information to the public about the intentions of monetary policymakers. Since 1978, that information has been transmitted in the announcement of the annual monetary targets in the Humphrey-Hawkins testimony. The FOMC was able to use

THE MOVE TOWARD INFLATION TARGETING IN OTHER COUNTRIES

Since 1990, several countries, including New Zealand, the United Kingdom and Canada, have directed their central banks to make inflation control their main objective. Other countries, like France, and Italy, have moved toward less formal "quantified inflation objectives." Although the details differ from country to country, there are common threads in the more formal plans.

In each country, the central bank has announced a low target range for inflation—typically zero to 2 percent—as well as the pace by which inflation will be reduced. By announcing its target, the central bank firmly commits itself to a course of action, while helping the public plan for the future by reducing uncertainty.

A central bank's commitment to long-term price stability can be strengthened by permitting a temporary suspension of the inflation targets in the face of extreme events, like oil price shocks. In such circumstances, a temporary increase in inflation is tolerated only until the crisis has passed. By permitting such flexibility, the policy of achieving price stability over the long run is made more credible.

In New Zealand, the United Kingdom and other countries, inflation targeting has been accompanied by increased central bank independence. In a democracy, there is always a tension between the policymaking institutions accountable to the public and the necessity to insulate their decisions from short-term political pressure. Policymakers must be able to look beyond the next six months, or the next election, in controlling inflation. As Figure 3 below illustrates, countries with the best records in controlling inflation are typically those with independent central banks, like Germany, Switzerland and the United States. When the central bank is an arm of the Treasury or is otherwise political, inflation rates are usually higher.

![Average Inflation: 1955-88](image-url)
these monetary targets to stop the acceleration of inflation and eventually reduce the level to the current range. The intentions implied by the monetary targets, however, became much less clear as they were de-emphasized in setting policy over the last decade or so. As a result, since the early 1980s, further progress toward price stability has been slow. In addition, there is uncertainty about the FOMC's policy intentions.

Under the current regime, there is a commitment to price stability at some unspecified time in the future. But the public isn't buying it: Opinion surveys show long-term inflation expectations well above current inflation rates. And market-based signals, such as long-term bond yields, continue to include a substantial premium for expected inflation as far out as 30 years.

A commitment to a long-term objective is needed to reduce the welfare loss that accompanies unpredictable changes in the trend rate of inflation. Credibility is paramount if the Fed is to reduce long-term interest rates and remove the risk premium that investors require because the long-term inflation rate is uncertain. One way to enhance credibility is by committing to a price-level objective.

Of course, even the best monetary policy can be foiled by irresponsible fiscal policy. If the government can't pay its bills, it may be tempted to force the central bank to pump out money to fund budget deficits or finance the operations of state-owned enterprises. To reduce this threat, and to lend credibility to inflation control, countries often adopt budgetary reforms. The nations that have chosen to pursue inflation targeting have given their central banks an explicit mandate to control inflation as well as the independence to act as needed to achieve the objective. Central bank officials are held accountable for meeting the inflation targets. In New Zealand, for example, the governor of the central bank can be dismissed if he fails to meet the inflation objective.

Thus far, the governor of the Bank of New Zealand has kept his job. Indeed, the experiments in New Zealand, Canada and the United Kingdom seem to have been quite successful in bringing down inflation. These countries have recently enjoyed lower rates of underlying inflation and higher output growth than the average OECD country.

Perhaps because of its long history of poor inflation performance (see figure), New Zealand has taken the most serious measures to commit to its inflation targeting policy. Today, the Bank of New Zealand is probably the most independent central bank in the world. Although the country's inflation target is set by the government under the Reserve Bank Act, the government is forbidden from instructing the Bank on the operation of monetary policy. New Zealand has also implemented fiscal reforms to reduce its deficit, and thereby lessen the likelihood that its central bank will be called upon to finance government expenditures.

How successful has it been since these reforms were instituted? New Zealand's inflation rate declined precipitously in 1991 during a severe recession that saw unemployment rise. After the fall of inflation, however, long- and short-term interest rates fell, output began to recover and unemployment began to fall again. Currently, New Zealand is enjoying the best of both worlds, with underlying inflation below 2 percent and very strong output growth.
An Objective for the Outcome, Not a Rule for Behavior

Because the term “price stability” does not have the same meaning to all interested observers, an explicit price-level objective would remove ambiguity. A price-level objective would offer a form of long-run commitment. If such a policy is credible, then long-term interest rates will reflect only the expected real rate of return to capital, plus the expected inflation rate; in other words, there will be no inflation uncertainty premium. If, in addition, the expected long-run rate of inflation is near zero, real interest rates will be as low as they can be, consistent with real factors, simply because both the expected inflation component and the expected variability of inflation will be near zero.

The details of such a plan can be important, but debate about them should not be allowed to interfere with the adoption of long-run price stability as the Fed’s primary goal. These details include choosing an appropriate index to target and an exact numerical goal, deciding how to handle unforeseen contingencies, and developing tactics to achieve the long-run objective.

An explicit long-term objective could still provide a framework within which to apply judgment and discretion. Discretion is needed because strict rules cannot be optimal in all situations. But a commitment to a long-term objective is also needed to inform people about policy intentions so that policy can be flexible when new and unexpected situations arise. The idea is to increase the incentive for policymakers to keep an eye on the long-run objective, even as they respond to special circumstances, thus leading to better policy and enhanced credibility.
Let's Return to Low Long-Term Interest Rates

In the long run, monetary policy is the principal determinant of the price level. Because both inflationary trends in the price level and uncertainty about future price levels cause distortions in market price signals and waste resources, the Federal Reserve should not only use its influence to stabilize the price level in the long run but also announce precisely its long-term price level objective. That the federal government has paid as much as 8 percent interest on long-term borrowing in the past year is a measure of considerable market uncertainty about future inflation. In the early 1960s, a time of quite low inflation, the federal government borrowed long term at about 4 percent. Monetary policymakers need to re-establish that kind of credibility.

The Federal Reserve should not only use its influence to stabilize the price level in the long run but also announce precisely its long-term price level objective.

Announcing a long-term price stability objective and then directing monetary policy toward achieving it represents the best that monetary policy can do to provide an economic environment within which labor, credit and goods markets can function effectively to generate jobs, saving and growing standards of living.
## Statement of Condition (thousands of dollars)

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>December 31, 1994</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold certificate account$</td>
<td>$429,000</td>
<td>$392,000</td>
</tr>
<tr>
<td>Special Drawing Rights certificate account$</td>
<td>$168,000</td>
<td>$168,000</td>
</tr>
<tr>
<td>Coins</td>
<td>$22,548</td>
<td>$21,650</td>
</tr>
<tr>
<td>Loans to depository institutions</td>
<td>$89,244</td>
<td>$1,250</td>
</tr>
<tr>
<td>Securities:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federal agency obligations</td>
<td>$144,632</td>
<td>$163,772</td>
</tr>
<tr>
<td>U.S. government securities</td>
<td>$14,496,995</td>
<td>$11,722,725</td>
</tr>
<tr>
<td>Total Securities</td>
<td>$14,641,627</td>
<td>$11,886,497</td>
</tr>
<tr>
<td>Cash items in process</td>
<td>$194,541</td>
<td>$246,352</td>
</tr>
<tr>
<td>Bank premises (net)</td>
<td>$30,097</td>
<td>$30,861</td>
</tr>
<tr>
<td>Other assets</td>
<td>$815,347</td>
<td>$783,320</td>
</tr>
<tr>
<td>Interdistrict settlement account</td>
<td>$4,307,572</td>
<td>$1,856,794</td>
</tr>
<tr>
<td>Total Assets</td>
<td>$20,697,976</td>
<td>$15,386,724</td>
</tr>
</tbody>
</table>

| LIABILITIES | | |
| Federal Reserve notes | $19,229,277 | $14,005,725 |
| Deposits: | | |
| Depository institutions | $940,714 | $906,693 |
| Foreign banks | $3,079 | $3,183 |
| Other deposits | $22,461 | $9,254 |
| Total Deposits | $966,254 | $919,130 |
| Deferred availability credit items | $157,555 | $214,670 |
| Other liabilities | $175,340 | $98,533 |
| Interdistrict settlement account | $0 | $0 |
| Total Liabilities | $20,528,426 | $15,238,058 |

| CAPITAL ACCOUNTS | | |
| Capital paid in | $84,775 | $74,333 |
| Surplus | $84,775 | $74,333 |
| Total Capital Accounts | $169,550 | $148,666 |
| Total Liabilities and Capital | $20,697,976 | $15,386,724 |

$This Bank's share of gold certificates deposited by the U.S. Treasury with the Federal Reserve System
$1This Bank's share of Special Drawing Rights certificates deposited by the U.S. Treasury with the Federal Reserve Bank of New York
### Income and Expenses (thousands of dollars)

**Earnings**

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 1994</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest on loans to depository institutions</td>
<td>$2,163</td>
<td>$692</td>
</tr>
<tr>
<td>Interest on government securities</td>
<td>737,666</td>
<td>537,604</td>
</tr>
<tr>
<td>Earnings on foreign currency</td>
<td>19,592</td>
<td>28,783</td>
</tr>
<tr>
<td>Revenue from priced services</td>
<td>31,044</td>
<td>30,570</td>
</tr>
<tr>
<td>All other income</td>
<td>173</td>
<td>210</td>
</tr>
<tr>
<td><strong>Total Current Income</strong></td>
<td><strong>$790,638</strong></td>
<td><strong>$597,859</strong></td>
</tr>
</tbody>
</table>

**Current Expenses**

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 1994</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current operating expenses</td>
<td>$88,200</td>
<td>$80,832</td>
</tr>
<tr>
<td>Less reimbursables</td>
<td>(11,156)</td>
<td>(10,541)</td>
</tr>
<tr>
<td><strong>Current net operating expenses</strong></td>
<td><strong>$77,044</strong></td>
<td><strong>$70,291</strong></td>
</tr>
<tr>
<td>Cost of earnings credits</td>
<td>4,865</td>
<td>3,603</td>
</tr>
<tr>
<td><strong>Current net expenses</strong></td>
<td><strong>$81,909</strong></td>
<td><strong>$73,894</strong></td>
</tr>
<tr>
<td><strong>Current net income</strong></td>
<td><strong>$708,729</strong></td>
<td><strong>$523,965</strong></td>
</tr>
</tbody>
</table>

**Profit and Loss**

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 1994</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit on sale of government securities (net)</td>
<td>$0</td>
<td>$1,226</td>
</tr>
<tr>
<td>Profit on foreign exchange transactions (net)</td>
<td>52,906</td>
<td>6,080</td>
</tr>
<tr>
<td>All other additions</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total Additions</strong></td>
<td><strong>$52,906</strong></td>
<td><strong>$7,306</strong></td>
</tr>
<tr>
<td>Loss on sale of government securities (net)</td>
<td>$988</td>
<td>0</td>
</tr>
<tr>
<td>Loss on foreign exchange transactions (net)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>All other deductions</strong></td>
<td><strong>$995</strong></td>
<td><strong>$31,391</strong></td>
</tr>
<tr>
<td><strong>Total Deductions</strong></td>
<td><strong>$995</strong></td>
<td><strong>$31,391</strong></td>
</tr>
<tr>
<td><strong>Net additions or deductions</strong></td>
<td>51,911</td>
<td>(24,085)</td>
</tr>
</tbody>
</table>

**Cost of unreimbursed Treasury service**

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment by Board of Governors:</td>
<td></td>
</tr>
<tr>
<td>Expenditures</td>
<td>(3,224)</td>
</tr>
<tr>
<td>Federal Reserve currency costs</td>
<td>(14,994)</td>
</tr>
<tr>
<td><strong>Net Income Available for Distribution</strong></td>
<td><strong>$740,601</strong></td>
</tr>
</tbody>
</table>

**Distribution of Net Income**

<table>
<thead>
<tr>
<th>Description</th>
<th>December 31, 1993</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dividends paid</td>
<td>$(4,765)</td>
</tr>
<tr>
<td>Payment to the U.S. Treasury</td>
<td></td>
</tr>
<tr>
<td>(interest on Federal Reserve notes)</td>
<td>$(725,338)</td>
</tr>
<tr>
<td>Transferred to surplus</td>
<td>10,498</td>
</tr>
<tr>
<td>Surplus, January 1</td>
<td><strong>$74,277</strong></td>
</tr>
<tr>
<td>Surplus, December 31</td>
<td><strong>$84,775</strong></td>
</tr>
</tbody>
</table>

*The 1993 Surplus amount on the Statement of Condition ($74,333) differs from the amount shown on the Income and Expenses statement ($74,277) by $56,000. This amount represents cancellation of Federal Reserve Stock that should have occurred in 1993. Notification, however, was not received until January 1994.*
Operating Statistics

<table>
<thead>
<tr>
<th>SERVICES TO DEPOSITORY INSTITUTIONS</th>
<th>Number of Pieces Handled</th>
<th>Dollar Amount (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1994</td>
<td>1993</td>
</tr>
<tr>
<td>U.S. government checks</td>
<td>28,815,000</td>
<td>29,055,000</td>
</tr>
<tr>
<td>Postal money orders</td>
<td>200,060,000</td>
<td>191,950,000</td>
</tr>
<tr>
<td>Commercial checks</td>
<td>648,181,000</td>
<td>611,673,000</td>
</tr>
<tr>
<td>ACH Services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commercial</td>
<td>135,249,000</td>
<td>115,076,000</td>
</tr>
<tr>
<td>U.S. government</td>
<td>28,952,000</td>
<td>26,683,000</td>
</tr>
<tr>
<td>U.S. Government Coupons Paid</td>
<td>14,494</td>
<td>23,348</td>
</tr>
<tr>
<td>Currency Received and Counted</td>
<td>834,639,000</td>
<td>772,778,000</td>
</tr>
<tr>
<td>Wire Transfer of Funds</td>
<td>3,494,343</td>
<td>3,322,167</td>
</tr>
<tr>
<td>Loans to Depository Institutions</td>
<td>1,000</td>
<td>570</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SERVICES TO U.S. TREASURY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer of Government Securities</td>
<td>163,686</td>
<td>158,219</td>
</tr>
<tr>
<td>Food Stamps Redeemed</td>
<td>275,644,000</td>
<td>267,666,000</td>
</tr>
</tbody>
</table>
Boards of Directors

BOARD OF DIRECTORS
ST. LOUIS
Chairman
Robert H. Quenon
Mining Consultant
St. Louis, Missouri
Deputy Chairman
John F. McDonnell
Chairman of the Board
McDonnell Douglas Corporation
St. Louis, Missouri
Michael A. Alexander
Chairman of the Board & President
First National Bank of Mount Vernon
Mount Vernon, Illinois
Richard E. Bell
President & Chief Executive Officer
Riceland Foods, Inc.
Stuttgart, Arkansas
W. D. Glover
Chairman & Chief Executive Officer
First National Bank of Mount Vernon
Mount Vernon, Illinois
Warren R. Lee
President
W. R. Lee & Associates, Inc.
Louisville, Kentucky
Douglas M. Lester
Chairman of the Board & President
Trans Financial Bancorp, Inc.
Boling Green, Kentucky
Veo Peoples, Jr.
Partner
Peoples & Hale
St. Louis, Missouri
Sandra B. Sanderson
President & Chief Executive Officer
Sanderson Plumbing Products, Inc.
Columbus, Mississippi

FEDERAL ADVISORY COUNCIL MEMBER
Andrew B. Craig, III
Chairman, President & Chief Executive Officer
Boatmen's Bancshares, Inc.
St. Louis, Missouri

Robert M. Hall
Owner
East Fork Growers Farm
Seymour, Indiana

Thomas E. Spragens, Jr.
President
Farmers National Bank
Lebanon, Kentucky

Charles D. Storms
President & Chief Executive Officer
Red Spot Paint & Varnish Co., Inc.
Evansville, Indiana

John A. Williams
Chairman & Chief Executive Officer
Computer Services, Inc.
Paducah, Kentucky

BOARD OF DIRECTORS
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Janet M. Jones
President
The Janet Jones Company
Little Rock, Arkansas
Lunsford W. Bridges
President & Chief Executive Officer
Metropolitan National Bank
Little Rock, Arkansas
Betty M. Carney
Chairman & Chief Executive Officer
World Wide Travel Service Inc.
Little Rock, Arkansas
Robert D. Nabholz, Jr.
Chief Executive Officer
Nabholz Construction Corporation
Conway, Arkansas
James V. Kelley
Chairman, President & Chief Executive Officer
First United Bancshares, Inc.
El Dorado, Arkansas
Mahlon A. Martin
President
Winthrop Rockefeller Foundation
Little Rock, Arkansas
Mark A. Shelton, III
President
M. A. Shelton Farming Company
Altsheler, Arkansas

BOARD OF DIRECTORS
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Daniel L. Ash
Senior Consultant
Wenz-Neely Company
Louisville, Kentucky
Malcolm B. Chacey, Jr.
Chairman of the Board & Chief Executive Officer
Liberty National Bank and Trust Company
Louisville, Kentucky
Laura M. Douglas
Legal Director
Louisville & Jefferson County Metropolitan Sewer District
Louisville, Kentucky

John V. Myers
President
Better Business Bureau
Memphis, Tennessee

Anthony M. Rampley
President & Chief Executive Officer
Arkansas Glass Container Corporation
Jonesboro, Arkansas
Benjamin W. Rawlins, Jr.
Chairman & Chief Executive Officer
Union Planters Corporation
Memphis, Tennessee
Katie S. Winchester
President
First Citizens National Bank
Dyersburg, Tennessee
Economic Advisory Council/Bank Officers

ECONOMIC ADVISORY COUNCIL
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Secretary & Co-Owner
The Missouri Peddlers
Florissant, Missouri
Bruce Brumfield
Partner
Brumfield Plantation & FTB Farms
Inverness, Mississippi
Dr. Brady Deaton
Office of the Chancellor
University of Missouri
Columbia, Missouri
Dr. Bert Greenwalt
Partner
Greenwalt Company Farm
Hazen, Arkansas
Lowell Guthrie
President
Trace Die Cast, Inc.
Bowling Green, Kentucky
James L. Laird
Waltonville, Illinois
Robert Reynolds
President
Shuler Drilling Company, Inc.
El Dorado, Arkansas
Lucy Shaw
Common Denominator, Inc.
Memphis, Tennessee
William Sprague
Sturgis, Kentucky

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James R. Bowen
First Vice President
Henry H. Bourgaux
Senior Vice President
Joan P. Cronin
Senior Vice President
William G. Dewald
Senior Vice President
Mary H. Karr
Senior Vice President, General Counsel & Secretary
Kristi D. Short
Senior Vice President
Clarus C. Coughlin
Vice President
William T. Gavin
Vice President
R. Alton Gilbert
Vice President
Lynn M. Greenwood
Vice President
Raymond H. Laurence
Vice President
William C. Leslie
Vice President
Jean M. Lovati
Vice President
Martha L. Perine
Vice President
Michael D. Renfro
General Auditor
William J. Sneel
Vice President
Randall C. Sumner
Vice President
Lynn M. Barry
Assistant Vice President
John W. Block
Assistant Vice President
Timothy A. Bosch
Assistant Vice President
Martin J. Coleman
Assistant Vice President
Judith A. Courtney
Assistant Vice President
Jeffrey M. Dale
Assistant Vice President
Hillary B. Debenport
Assistant Vice President
Edward A. Hopkins
Assistant Vice President
Robert A. Hopkins
Assistant Vice President
Jerome J. McGunnigle
Assistant Vice President
Michael J. Mueller
Assistant Vice President
Kim D. Nelson
Assistant Vice President
Frances E. Sibley
Assistant Vice President
Robert J. Taylor
Assistant Vice President
Daniel L. Thornton
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Richard G. Anderson
Research Officer
Bernard E. Berns
Public Affairs Officer
Dennis W. Blase
Supervisory Officer
Michael W. DeClue
Supervisory Officer
Patricia A. Marshall
Assistant Counsel & Assistant Secretary to the Board
Steven N. Silvey
Information Systems Officer
Harold E. Slingerland
Credit Officer
Leisa J. Spalding
Audit Officer

LITTLE ROCK BRANCH
Karl W. Ashman
Vice President & Manager
Thomas R. Callaway
Assistant Vice President
Marilyn K. Corona
Operations Officer

LOUISVILLE BRANCH
W. Howard Wells
Vice President & Manager
Thomas A. Boone
Assistant Vice President
Thomas O. Short
Assistant Vice President

MEMPHIS BRANCH
John P. Baumgartner
Vice President & Manager
Michael R. Sinnert
Assistant Vice President
Eighth Federal Reserve District

FEDERAL RESERVE BANK
OF ST. LOUIS
411 Locust Street
St. Louis, Missouri 63102
314-444-8444

LITTLE ROCK BRANCH
325 West Capitol Avenue
Little Rock, Arkansas 72201
501-324-8300

LOUISVILLE BRANCH
410 South Fifth Street
Louisville, Kentucky 40202
502-568-9200

MEMPHIS BRANCH
200 North Main Street
Memphis, Tennessee 38103
901-523-7171