The year 2001 was a challenging one for monetary policy formulation. The Federal Reserve responded aggressively to a progressively weakening economy and the severe shocks induced by the terrorist attacks of September 11. Altogether, the Federal Open Market Committee (FOMC) voted to reduce interest rates 11 times during 2001, leaving short-term interest rates at yearend at their lowest level since 1961. Virtually all of the Bank’s economists contributed to monetary policy deliberations during this extraordinary year. In addition to the focus on monetary policy formulation, major research activities of 2001 included the following:

- Our forty-fifth economic conference, “Seismic Shifts,” gathered economists and demographers from around the world to discuss the economic impact of projected demographic changes over the next 50 years. These changes include widespread, rapid population aging, relatively slow population growth, and a marked increase in migration. Policies recommended by conferees to alleviate the pressures induced by these changes included measures to improve labor force participation, reform social security systems, encourage gains in educational attainment, and increase migration.

- Again taking a global perspective, a senior macroeconomist at the Boston Fed led a System study cataloguing monetary policy practices in other industrial countries, focusing especially on the expanding set of assets used by foreign central banks in their open market operations. Other internationally focused research included an exploration of the historical links between international developments and U.S. monetary policy, and a study examining the extent to which movements in exchange rates are passed through...
to prices of manufactured products imported into the United States—a key link in the chain of monetary policy effects. The study suggests that pass-through fell notably between the 1980s and the 1990s.

- Macroeconomists had their hands full analyzing the rapidly evolving conditions in the economy. Developing a better understanding of the cyclical and secular components of productivity, as well as its effects on income and inflation, was a critical task for the first half of the year. In the midst of the economic slowdown, economists continued to study the appropriate way to model the U.S. economy, an ongoing long-term research agenda, and also a center of expertise for the department.

- Regionally focused research included analyses of migration patterns of college graduates, potential obsolescence of state and local revenue systems, factors affecting consumers’ choice of payments instruments, and measured disparities in the rise of the educational wage premium. Economists also organized and hosted the New England Study Group, a monthly seminar series attended by area economists and policy analysts.

- Over the course of 2001, economists gave presentations on economic issues at a variety of venues throughout New England. In addition to sharing economists’ research and insights in this way, all research publications were made available on the Bank’s web site as well as in hard copy. Publications were widely cited in both scholarly and general readership journals. The *Regional Review*, a publication of special appeal to informed readers of nontechnical economics, included articles on education finance in New Hampshire, the modern-day fishing industry, and the impact of estate-tax reforms.
**Financial Services**

The Boston Fed provided national leadership last year both in ongoing initiatives to improve the development and delivery of financial services and in specific actions to maintain continuity and stability in banking and financial markets after the terrorist attacks of September 11. Highlights of the Bank's national leadership role include the following:

- The System's new national financial services management structure, designed in 2000 under the Boston Fed's leadership and implemented in early 2001, responded effectively to the extraordinary demands placed on the Reserve Banks after the September 11 attacks. Swift and frequent communications and fast, decisive action enabled the Reserve Banks to fulfill their central bank responsibilities and maintain critical payments services in the hours and days immediately after the terrorist attacks.

- The System's commercial check image infrastructure team, based in Boston, overcame several hurdles to complete development of the System's first national check image archive. Installed first at the Cleveland Fed in January 2002, the new archive system will eventually replace incompatible systems in use at more than 30 Reserve offices across the country.

- Under Boston Fed auspices, the industry moved closer to formulating new payments system standards. A workshop organized by the Bank and the Board of Governors brought together Federal Reserve and banking industry participants to explore operating problems associated with the use of universal payments system standards.

- In November, the System started a pilot program to test a new accounting interface that allows depository institutions to use the Internet to access real-time account balances and related information. Developed by a national team based at the Boston Fed, the pilot proved very successful, and all Reserve Banks will offer this new service during 2002.

- 2001 was the first full year of operation at the Boston Fed of one of three national consolidated Treasury Direct call centers, which allow the public to buy and hold U.S. Treasury securities using the Federal Reserve's book-entry system. Boston staff headed the team that established the technical and management processes needed to operate the three centers.

- During 2001, a joint Federal Reserve/banking industry Image Task Force, chaired by a Boston Fed senior officer, published “A Framework for Exchanging Image Returns.” This collaborative paper documents the evolving use of image returns in check processing and describes how image returns can facilitate strategic planning by participants in the payments system.

- The Bank and System made significant progress on longer-term issues in 2001. We adopted a plan for e-business; strengthened our joint strategic planning with the Treasury; completed preparations for dialogue with the industry on the long-term direction for cash services; and developed an overall strategy for restructuring customer support. We also completed two major studies: an assessment of Federal Reserve e-payments initiatives, and research on the use of alternative payments instruments.

Locally, growth and new initiatives characterized the Boston Fed's financial services program. Our staff responded effectively to the challenges of September 11. The accompanying table summarizes the growth in check, cash, ACH, and funds transfer services. Highlights of 2001 at the local level include the following:

- The Boston Fed provided uninterrupted delivery of financial services during the September crisis. During the week of September 11, off-line funds and book-entry securities transfers increased dramatically as the Boston Fed served as one of two back-up centers for commercial banks whose electronic funds transfer operations were disrupted.

- First District check processing volume grew at a double-
digit rate in 2001, well above the anticipated level. On average, 4.3 million checks per day were processed. Despite the heavier workload, the Bank was able to increase check processing productivity significantly and lower unit costs by 8 percent.

- The volume of currency processed also increased in 2001, with cash services staff processing 6 percent greater volume than in 2000. Several automation applications were introduced, including a new voice-response cash ordering system. Cash services staff successfully tested a cost-saving innovation that allows more efficient processing of $1 notes. Developed locally, the innovation is being shared with other Reserve Banks.

- In July, the System chose the Boston Fed as the national site for joint custody collateral services and as one of two central providers of customer service and administrative support for on-line funds transfer and book-entry securities transfer services.

- We achieved substantial growth in ECP (electronic check presentment) volume in 2001 through the sustained efforts of account managers, publication of a new ECP marketing brochure, and introduction of a new product that combines ECP with electronic check information. ECP promises to yield significant process-

### Bank Supervision and Regulation

*Supervisory activities intensified during 2001 as a result of the challenging economic environment faced by the banking industry. At the same time, Supervision and Regulation devoted more resources to the analysis of major policy issues and, in response to the terrorist attacks of September 11, stepped up key monitoring and assessment activities.*

### 2001 Financial Services Activity

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<tbody>
<tr>
<td>Processed Volume</td>
<td>$4,100,000</td>
<td>4,300,000 checks</td>
<td>10.5%</td>
</tr>
<tr>
<td>Fine Sort Volume</td>
<td>$246,800</td>
<td>300,000 checks</td>
<td>4.1%</td>
</tr>
<tr>
<td>Processed Returns</td>
<td>$59,600</td>
<td>48,100 checks</td>
<td>14.1%</td>
</tr>
<tr>
<td><strong>TOTAL VOLUME</strong></td>
<td><strong>$4,406,400</strong></td>
<td><strong>4,648,100 checks</strong></td>
<td><strong>10.0%</strong></td>
</tr>
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<tr>
<th>Automated Clearing House</th>
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<tbody>
<tr>
<td>Commercial Items Originated</td>
<td>$1,800,000</td>
<td>985,900 items</td>
<td>10.0%</td>
</tr>
<tr>
<td>Government Items Originated</td>
<td>$7,100</td>
<td>1,900 items</td>
<td>2.1%</td>
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| Funds Transfers¹            | $279,500,000                      | 60,900 transfers     | −0.5%                           |

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<tr>
<th>Electronic Book Entry</th>
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<tbody>
<tr>
<td>Securities Transfers¹</td>
<td>$118,300,000</td>
<td>12,500 transfers</td>
<td>13.0%</td>
</tr>
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<table>
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<tr>
<th>Cash Operations</th>
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<tbody>
<tr>
<td>Total Notes Paid²</td>
<td>$130,500</td>
<td>8,600,000 notes</td>
<td>4.6%</td>
</tr>
<tr>
<td>Total Notes Received²</td>
<td>$116,600</td>
<td>8,200,000 notes</td>
<td>−1.7%</td>
</tr>
<tr>
<td>High Speed Notes Processed²</td>
<td>N/A</td>
<td>8,600,000 notes</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

¹Includes work performed as a System consolidation site for off-line processing of wholesale payments for the full year.

²Comparisons of 2001 with both 2000 and 1999 are affected by unusual activity in the final quarter of 1999 and the first quarter of 2000 related to the century date change. Annualized growth rates for 2001 compared with 1999 are 1.1% for total notes paid, 5.0% for total notes received, and 6.1% for high speed notes processed.
• The weakened economy was evident in the performance of the region’s banks, which experienced an aggregate increase in nonperforming assets, pressure on net interest margins, and less robust fee income. While most measures remained relatively strong, Supervision and Regulation will continue to monitor performance trends closely.

• Supervision and Regulation monitored the impact on New England’s banking organizations of the September 11 terrorist attacks and worked to ensure that disruptions to normal operations were effectively resolved. The department’s Insurance Knowledge Center functioned effectively as a System resource, monitoring and assessing the financial implications of the attacks and distributing advisories regarding potential risk concerns and issues affecting the availability of credit.

• Supervisory staff devoted considerable attention to evaluating the new Basel capital accord. The Boston Fed’s work was based on analysis of actual depository institution data coupled with market data. Comments provided by the Boston Fed centered on the analysis of credit and operational risk. Bank staff were invited to participate in two Systemwide work groups related to credit risk.

• In November, we organized and co-hosted with the Board of Governors a two-day international conference, “Capital Allocation for Operational Risk.” Attendees, including academics, practitioners, and supervisors, gained a better understanding of best practices in identifying, measuring, and modeling operational risk and in mitigating this risk through capital allocation, insurance, and other tools. In May, the Bank hosted a conference on insurance risk, providing training for staff from the Board and the Reserve Banks on insurance topics ranging from risk management to regulatory perspectives.

• Staffing was significantly strengthened in 2001. A new technical support unit within the department quickly made substantial contributions in a number of areas, including modeling the behavior of LCBOs (large complex banking organizations), assessment of the Basel capital proposal, collaborative work with the Insurance Knowledge Center, and participation in field examinations. Additional expertise was developed in global custody and securities processing; contacts with foreign supervisory authorities were strengthened; and monitoring of troubled foreign economies was intensified.

**Public and Community Affairs**

In 2001, Community Affairs activities of the Boston Fed centered around issues of fair access to credit and community economic development on both national and regional fronts. The department’s overarching aim was to facilitate the efforts of others to educate, inform, create, and change.

• In April, the Boston Fed co-chaired the Federal Reserve System’s second Community Affairs Research conference, attended by some 450 community, government, and banking professionals. Research presented at the conference focused on the ways in which ongoing changes in financial markets are affecting low-income and moderate-income communities.

• Over the course of the year, Community Affairs staff assisted in a three-way collaborative effort to develop an on-line information center for faith-based community economic development (www.faithandcommunityatwork.com). Launched in October, this resource has been well received.

• Protect Yourself: Identity Theft, a videotape co-produced by the Boston Fed in 2000, gained national acceptance in 2001 as more than 3,200 copies were distributed to individuals and organizations across the country.

• Community Affairs staff contributed significantly to the development of a business plan for a Rhode Island Homeownership Center. An initiative of the Rhode Island
Housing Resources Commission, the Center will promote homeownership through the coordination of resources and agencies providing homeownership services in Rhode Island.

- In partnership with the Center for Hunger and Poverty at Brandeis University, the Boston Fed hosted a Massachusetts asset-development policy forum that focused on asset-development policy options for low- and moderate-income individuals and communities.

- Throughout the year, Community Affairs staff hosted conferences and training sessions in locations across New England. These included three “sunshine provision” training sessions for bankers and community organizations; three community development finance training sessions; and a National Consumer Protection Week conference.

**Economic education and work with the Boston public schools were the focus of the Bank’s Public Affairs activities in 2001:**

- *Fed Challenge, Economics Challenge,* and *LifeSmarts,* three economic competitions hosted by the Boston Fed for high school students, were again popular in 2001. From 25 to 30 teams have participated in *Fed Challenge* at the regional level in each of the last several years. *Economics Challenge,* now sponsored by the National Council on Economic Education, attracted 22 teams at the regional level last year, and the regional winner won the national competition.

- In early 2001, the Bank officially launched *Peanuts & Crackerjacks,* a web-based baseball game that uses professional team sports to teach economics. Usage continues to grow, and the program has drawn accolades from students, teachers, and the general public.

- The Bank increased its outreach efforts to promote its economic education programs and stimulate ideas for new programs. Presentations were made at regional and national forums. The Boston Fed also worked with System colleagues to develop a marketing plan and stronger identity for all System economic education efforts. The Bank’s economic education newsletter, *The Ledger,* was enhanced through new content and format.

- The Boston Fed maintained its close ties with Boston’s public schools. In addition to its partnerships with three schools, the Bank continued its *Classroom in the Workplace* reading program for high school summer interns and expanded the program to include mathematics as well as reading. Results were gratifying, as several other companies joined the program and the students’ average reading proficiency increased by more than a grade level over the summer.