



FEDERAL RESERVE BANK
OF DALLAS

TONY J. SALVAGGIO
FIRST VICE PRESIDENT

December 22, 1995

DALLAS, TEXAS
75265-5906

Notice 95-122

TO: The Chief Operating Officer of
each financial institution in the
Eleventh Federal Reserve District

SUBJECT

Information Kit on Redesigned Currency

DETAILS

An information kit on the redesigned currency that will be introduced in early 1996 is now available. The kit contains a poster, brochure, and other materials that explain the new security features of the redesigned currency.

ENCLOSURE

Enclosed is the information kit on the redesigned currency.

MORE INFORMATION

For additional kits, please contact Brenda Craine at (214) 922-5254. Due to a limited supply, orders must not exceed 10 kits per financial institution.

Sincerely,

For additional copies, bankers and others are encouraged to use one of the following toll-free numbers in contacting the Federal Reserve Bank of Dallas: Dallas Office (800) 333-4460; El Paso Branch *Intrastate* (800) 592-1631, *Interstate* (800) 351-1012; Houston Branch *Intrastate* (800) 392-4162, *Interstate* (800) 221-0363; San Antonio Branch *Intrastate* (800) 292-5810.

YOUR MONEY MATTERS

Beginning with the \$100 note in 1996, the United States of America is issuing currency with new and enhanced security features. These features will help protect U.S. currency from advancing technologies which could be used for counterfeiting.

There will be no recall or devaluation of any U.S. currency. As old notes reach the Federal Reserve, they will be replaced by the redesigned currency. Whether old or new, all U.S. currency always will be honored at full face value.

Federal Reserve Indicators

A new universal seal represents the entire Federal Reserve System. A letter and number beneath the left serial number identifies the issuing Federal Reserve Bank.

Microprinting

Because they're so small, microprinted words are hard to replicate. On the front of the note, "USA 100" is within the number in the lower left corner and "United States of America" is on Benjamin Franklin's coat.

Security Thread

A polymer thread is embedded vertically in the paper and indicates, by its unique position, the note's denomination. The words "USA 100" on the thread can be seen from both sides of the note when held up to a bright light. Additionally, the thread glows red when held under an ultraviolet light.

Portrait

The enlarged portrait of Benjamin Franklin is easier to recognize, while the added detail is harder to duplicate. The portrait is now off-center, providing room for a watermark and reducing wear and tear on the portrait.

Watermark

A watermark depicting Benjamin Franklin is visible from both sides when held up to a light.



Concentric Fine Lines

The fine lines printed behind both Benjamin Franklin's portrait and Independence Hall are difficult to replicate.

Color-Shifting Ink

The number in the lower right corner on the front of the note looks green when viewed straight on, but appears black when viewed at an angle.

Serial Numbers

An additional letter is added to the serial number. The unique combination of eleven numbers and letters appears twice on the front of the note.





ORDER FORM

YOUR MONEY MATTERS

Printed Materials



Additional copies of the brochure, YOUR MONEY MATTERS, the 17" x 22" full-color folded poster, and the 8-1/2" x 11" full-color flat poster are available for training, educational, and consumer information purposes in reasonable quantities at no charge.

- Brochures:** Available in packets of 100. (For quantities of less than 100, please contact your local Federal Reserve Bank.)
- Posters:** 17" x 22" full-color folded. Available in packets of 10.
8-1/2" x 11" full-color flat. Available in packets of 10.

To order your materials, please fill out **all** of the information below and mail or fax to:

YOUR MONEY MATTERS
Federal Reserve Bank of Kansas City
P.O. Box 419442
Kansas City, MO 64141-6442
Fax Number: (816) 881-6850

Contact Name _____ Title _____

Institution _____

Asset Size (if applicable) _____ Number of Offices (if applicable) _____

Phone (____) _____ Fax (____) _____

Please send the following:

_____ packets of 100 brochures, for a total of _____ brochures.

_____ packets of 10 folded 17" x 22" full-color posters, for a total of _____ posters.

_____ packets of 10 flat 8-1/2" x 11" full-color posters, for a total of _____ posters.

SHIPPING LABELS

Please type or print.

Name _____

Institution _____

Mailing Address _____

City _____ State _____ Zip _____



YOUR MONEY MATTERS



Introduction of the Series 1996 Currency

There will be no recall or devaluation of U.S. currency already in circulation. The United States always honors its currency at full face value, no matter how old. The new Series 1996 \$100 notes, the first in the series, will be introduced in the early part of 1996. Within about a year, lower denominations will be issued in order of decreasing value. The new Federal Reserve notes will be phased into circulation, replacing older ones as they reach the banking system. This multi-year introduction of the new series is necessary because of the time-intensive processes involved in engraving and producing the new designs. Sufficient inventory will be produced to ensure worldwide availability of new notes.

In conjunction with the Federal Reserve, the Treasury Department is conducting a worldwide public education campaign with two primary objectives: (1) communicate to the general public that there will be no recall or devaluation; and (2) provide information that will enable the public, law enforcement personnel, central banks, depository financial institutions and other cash handlers to authenticate the new series.

History of the New Series

Until the late 1920s, U.S. currency was redesigned frequently. There also were several types of notes in circulation: United States Notes, National Bank Notes and Silver Certificates. Since the introduction of the Series 1928 Federal Reserve Notes, changes in the design, including the use of microprinting and a security thread in Series 1990, have not affected the overall architecture of U.S. currency.

The counterfeit-deterrent features added in Series 1990 were the first step in responding to advances in reprographic technologies. Although these features have proved effective and will be retained, additional measures are necessary to protect against future threats posed by continued improvements in copy machines, scanners and printing. The new design, beginning with Series 1996, is the culmination of a five-year study aimed at staying ahead of the counterfeiting threat and is part of a continuing process to protect U.S. currency.

The process began with the New Currency Design Task Force, which comprised representatives of the U.S. Treasury Department, Federal Reserve System, U.S. Secret Service and the Bureau of Engraving and Printing (BEP). The Task Force made its recommendations to the Advanced Currency Deterrence Steering Committee, also composed of representatives of the Treasury Department, Federal Reserve, Secret Service and BEP. Based on a comprehensive study by the National Academy

of Sciences, the Steering Committee then made recommendations for the new design and security features to the Secretary of the Treasury, who has statutory authority to approve such changes.

More than 120 security features were examined and tested, including those submitted in response to a BEP solicitation, those used in other currencies, and those suggested by the NAS. Evaluation criteria included impact on security, proven reliability, ability to be manufactured in large quantities, and durability over time. Among the features evaluated were holograms, color shifting films, thread variations, color patterns, and machine-readable enhancements. The strategy of the Design Task Force was to incorporate as many features as are justifiable. The features ultimately selected have proved successful in other countries as well as in test environments at BEP and the Federal Reserve. The Design Task Force will continue to seek and test new security features as technology further evolves.

The New Design

The new currency is the same size, color and feel as the old notes, with the same historical figures and national symbols. “In God We Trust” and the legal tender wording also will remain on the new bills. This continuity will facilitate public education and universal recognition of the design as genuine U.S. currency—an important consideration since there will be dual circulation of the old and new currencies around the world. Among the new security features:

- A larger, slightly off-center portrait is the most noticeable visual change. The larger portrait incorporates more detail, making it easier to recognize and more difficult to counterfeit. Moving the portrait away from the center, the area of highest wear, will reduce wear on the portrait.
- Shifting the portrait off center provides room for a watermark, making it harder for counterfeiters to print. The watermarks will depict the same historical figures as the engraved portrait.
- Serial numbers on the new currency will differ slightly from old currency. The new serial numbers will consist of two prefix letters, eight numerals, and a one-letter suffix. The first letter of the prefix will designate the series (for example, Series 1996 will be designated by the letter A). The second letter of the prefix will designate the Federal Reserve Bank to which the note was issued. In addition, a universal Federal Reserve seal will be used, rather than individual seals for each Reserve Bank.
- The use of a unique thread position for each denomination will guard against counterfeiting.
- Color shifting ink changes from green to black when viewed from different angles. This feature is used in the numeral in the lower right-hand corner.
- The numeral in the lower left-hand corner incorporates microprinting, a printing technique using lettering that can be read with a low-powered magnifier. Extremely small print (“USA 100” on the \$100 bill) appears as a thin line to the naked eye and yields a blurred image when copied. On the \$100 bill, similar microprinting also is used on Benjamin Franklin’s coat.

- The background of the Franklin portrait on the \$100 note incorporates the technique of concentric fine-line printing, as will the background of the picture of Independence Hall on the reverse side. This type of fine line printing is difficult to resolve properly on scanning equipment and to replicate accurately by other means of printing.

Although all denominations of currency will have security features, the number of features will vary according to denomination. The \$100 note will have a full package of features, while the \$1 note will have fewer and less sophisticated features. The basic appearance of all denominations will not vary.

Cost

The total cost of developing the new design was approximately \$765,000. Included in this cost was funding for National Academy of Sciences studies—\$265,376. Another \$500,000 was spent to purchase test quantities of features and carry out internal evaluations. Current notes cost 3.7 cents each, and BEP produces about nine billion notes each year. Security enhancements will increase the cost by a fraction of a cent. The Federal Reserve System is funding the development and introduction of the new currency through earnings the Federal Reserve receives primarily from interest on its holdings of U.S. government securities.



YOUR MONEY MATTERS



Technical Background Security Features

The Department of the Treasury's Bureau of Engraving and Printing (BEP) is responsible for producing the new series currency. The Federal Reserve System will introduce the new currency beginning with the Series 1996 \$100 notes. The new features—including enlarged off-center portrait, watermark, concentric fine-line patterns and color-shifting ink—were selected after extensive testing and evaluation of approximately 120 bank note security devices, many of which are used successfully by other countries with lower production and circulation demands.

Other pre-existing security features such as the security thread and microprinting are included in the new notes and have changed only slightly.

Evaluation Criteria

Effectiveness

Counterfeit deterrent effectiveness was tested by reprographic equipment manufacturers and government scientists. They also considered the ease of public and cash handler recognition.

Durability

Durability was tested rigorously. Tests included crumpling, folding, laundering, soiling and soaking in a variety of solvents such as gasoline, acids and laundry products.

Developmental

The total cost was \$765,000: \$265,376 to fund National Academy of Sciences studies, and approximately \$500,000 to purchase test quantities of features and carry out internal BEP evaluations.

Production Costs

Research and production expenses will increase the cost of each note by a fraction of a cent. The Federal Reserve is funding the development and introduction of the new currency through earnings the Federal Reserve receives primarily from interest on its holdings of U.S. government securities.

Appearance

The currency still looks very American. The size of the notes, basic colors, historical figures and national symbols are not changing. New features were evaluated for their compatibility with the traditional design of United States currency.

The New Features

Watermark

A watermark may be formed by varying paper density in a small area during the papermaking process. The image is visible as darker and lighter areas when held up to the light. The watermark does not copy on color copiers, thereby making it an easy way to verify the note and making it harder to use lower denomination paper to print counterfeit higher denominations. It depicts the same historical figure as the engraved portrait.

Color-Shifting Inks

These inks change color when the note is viewed from different angles. The ink appears green when viewed directly and changes to black when the note is tilted.

Concentric Fine-Line Patterns

This type of line structure appears normal to the human eye but is difficult for current scanning equipment to resolve properly.

Enlarged Off-Center Portrait

A larger portrait can incorporate more detail, making it easier to recognize and more difficult to counterfeit. It also provides an easy way for the public to distinguish the new design from the old. The portrait is shifted off center to provide room for a watermark and unique “lanes” for the security thread in each denomination. The slight relocation also reduces wear on most of the portrait by removing it from the center, which is frequently folded. The increased size is a help to people with visual impairments.

Pre-Existing Security Features

Security Thread

A security thread is a thin thread or ribbon running through a bank note substrate. It is a versatile feature, with many types currently available, including microprinted, metallic, magnetic, windowed and embedded. The thread in the new notes glows red when held under an ultraviolet light. This characteristic makes it difficult to copy with a color copier that uses reflected light to generate an image. Using a unique thread position for each denomination starting with the new \$100 note guards against certain counterfeit techniques, such as bleaching ink off a lower denomination and using the paper to “reprint” the bill as a higher value note. The unique position also can be used by currency-accepting equipment to determine the value of the note, especially if the threads are machine-detectable.

Microprinting

This print appears as a thin line to the naked eye, but the lettering easily can be read using a low-power magnifier. The resolution of most current copiers is not sufficient to copy such fine print. On the newly designed \$100 bills, microprinting appears in the lower left corner and on Benjamin Franklin’s coat.



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Advanced Copier and Printer Technology

Advanced reprographic technology improved dramatically during the 1990s. The technology is expected to continue to improve into the next century. Some types of equipment are capable of accurately reproducing the colors and fine-line detail of security documents and are seen as a threat to currency.

Market surveys indicate that as quality, affordability, and availability increase, advanced equipment will become the standard in offices, copy centers and printing facilities. The color copier/printer of the '90s has been compared with the color television of the '70s, when color became the standard, rather than the exception.

Of the new technologies, advanced copiers, printers, electronic digital scanners, color workstations and computer software can present threats to currency. During the early '90s, the new technologies used in advanced copiers and printers merged and interfaced with each other. This equipment does not require extensive expertise to operate and is becoming widely accessible through copy centers and corporate offices.

Advanced Full-Color Copiers

Advanced full-color copiers have evolved into a digital electrophotographic process utilizing digital scanners and computer technology to produce high quality plain paper copies. Some of these copiers interface with personal computers. The scanner portion of the copier can be used to scan an image into the computer or as the computer's output device. In time, the high-end digital copiers may well be able to reproduce much of the fine detail of currency.

Digital Scanners

Scanner equipment electronically scans an image or text from an original document and digitizes it into a computer-readable form. Through the use of computer graphics software, the image may be displayed on a screen and changed or combined with other images. The edited image then can be stored in an electronic format, printed on a color output device or used to make offset or gravure printing plates.

Scanner equipment is no longer confined to large printing, graphic design or advertising firms. Low- and medium-quality scanners are readily available to the individual. High-quality scanners are readily available in copy centers and corporate offices. The scanners incorporated in some advanced color copiers can interface with personal computers and graphics programs.

Advanced color copiers and printing equipment using this technology can be a security threat because of the flexible editing capabilities and fine-detail reproductions. As the price of this technology continues to drop, the availability of high quality scanners will increase.

Color Ink Jet Copiers and Printers

Color ink jet copiers utilize scanner technology to digitize an image, which is then reproduced using ink jet printer technology. These machines, which are capable of producing good quality reproductions on plain paper, are widely available and inexpensive. Some of these ink jet copier machines can interface with personal computers and graphics software. The machines then can be used to scan an image into the computer or to output an image.

Personal Computers and Graphics Software

Personal computers and graphics software combine the latest personal computer, graphics software, printer/copier, video and scanner technologies. The images can be stored indefinitely, copied electronically or transmitted to another location for printing. Output quality depends on the scanner and printer dpi resolution capabilities. Printer resolution is of greater importance because scanner input can be edited to enhance image quality. As the price of personal computer technology continues to drop, the availability and use of this technology to counterfeit currency and other security documents will increase.



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Studies United States Currency Security Features

Security Thread and Microprinting

Reactions to the New U.S. Currency: Analysis of Focus Group Discussions, November 3, 1986. Market Facts Inc., funded by the Federal Reserve Board.

To determine public reaction to currency with security thread and microprinting. Focus group participants were satisfied with their currency but would accept the addition of a security thread and microprinting for well-communicated counterfeit deterrent reasons.

Counterfeit Threat

Advanced Reprographic Systems: Counterfeiting Threat Assessment and Deterrent Measures, June, 1986. National Academy of Sciences, funded by the Bureau of Engraving and Printing.

To assess counterfeit threats from specific advanced reprographic equipment and recommend counterfeit deterrents. Confirmed threat and recommended action. For near term, suggested combination of conventional deterrent devices, including a security thread.

Counterfeit Deterrent Features for the Next-Generation Currency Design, December, 1993. National Research Council, funded by the Department of the Treasury.

To analyze and recommend overt counterfeit deterrent features that could be incorporated into a redesign of U.S. bank notes. Beginning in 1996, U.S. paper currency will be redesigned to incorporate anti-counterfeiting features. Features recommended included color-shifting ink, a watermark, microprinting, a security thread and other features that are difficult to copy.

Visual Deterrents

Currency Features for Visually Impaired People, 1995.
National Research Council, funded by the Bureau of
Engraving and Printing.

To analyze and recommend overt counterfeit deterrence features that could be incorporated into a redesign of U.S. currency for use by the visually impaired. Recommended long-range systematic planning as a regular part of the mission within the Department of the Treasury.

**Design Change
Reactions**

Reactions to U.S. Currency Redesign: Analysis of Focus Group Discussion, September 21, 1983. Market Facts Inc., funded by the Federal Reserve Board.

To obtain further data on public opinion regarding currency design. Found the public willing to accept design changes for counterfeit protection.

**Advanced Imaging
Technologies**

The Impact of Emerging Imaging Technologies on Counterfeiting of U.S. Currency, August 16, 1983. Batelle Columbus Laboratory, funded by Federal Reserve Board.

To evaluate counterfeit threat from advanced copier and printer technology. Found question to be not whether color copies will present a threat but when.

U.S. Currency Acceptance

Final Report: Stage Two, Public Acceptance of Proposed Changes in U.S. Currency Project, February 23, 1981.
University of Michigan Graduate School of Business, Division of Research, funded by the Federal Reserve Board.

To determine public opinion on currency redesign. Found the public satisfied with currency design but supportive of a design change to deter counterfeiting.



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Department of the Treasury Bureau of Engraving and Printing: The U.S. Government's Security Printer

- Since October 1, 1877, all United States currency has been printed by the Bureau of Engraving and Printing, which began as a six-person operation using steam-powered presses in the Department of the Treasury's basement.
- Now 2,500 Bureau employees occupy 25 acres of floor space in two Washington, D.C. buildings flanking 14th Street. Currency and stamps are designed, engraved, and printed 24 hours a day on 30 high-speed presses. An additional 500 Bureau employees are at the Western Currency Facility in Fort Worth, Texas, where currency is printed 16 hours a day, 5 days a week on 10 high-speed presses.
- In 1995, at a cost of 3.7 cents each, over 9 billion notes worth approximately \$129 billion are being produced for circulation by the Federal Reserve System. Ninety-five percent will replace unfit notes and five percent will support economic growth. At any one time, \$200 million in notes may be in production.
- Of total production, notes currently produced are the \$1 (45 percent of production time), \$5 and \$10 (12 percent each), \$20 (26 percent), \$50 (2 percent), and \$100 (3 percent).
- The Bureau also prints White House invitations and some 500 engraved items, such as visa counterfoils, naturalization documents, commissions, and certificates for almost 75 federal departments and agencies.

Tours

- The Bureau of Engraving and Printing is one of the most popular tourist stops in Washington—over 700,000 visit the printing facility each year.
- Free 20-minute guided tours are offered Monday through Friday, 9 a.m. - 2 p.m., except for federal holidays and the week between Christmas and New Year's. Tours start on Raoul Wallenberg Place (formerly 15th Street). During the summer months (June-August), afternoon tours are given from 4 p.m. - 7:30 p.m.

- Visitors can see press runs of 32-note currency sheets, examiners overseeing production to ensure high-quality notes, the application of Federal Reserve and Treasury seals, and 4,000 note “bricks” being readied for distribution to Federal Reserve Banks.
- In late 1995, the Bureau will offer tours of postage stamp production.

Visitors Center

- At the Visitors Center, history, production, and counterfeit exhibits showcase interesting information about United States currency.
- Many unique items can be purchased at the sales counter. Items include uncut currency sheets of 32, 16, or 4 \$1 notes; \$150 worth of shredded currency in plastic bags that are sold for \$1; engraved collectors’ prints; souvenir cards; and Department of the Interior Duck Stamps.

Mail Order Sales

- Persons wishing to receive notice of new Bureau products or to order by mail can write: Mail Order Sales, Bureau of Engraving and Printing, 14th and C Streets, S.W., Room 513-M, Washington, D.C. 20228. Credit card purchases of Bureau products are available by calling (202) 874-3316, Monday through Friday, 8 a.m. - 3:30 p.m.



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The History of Paper Money

In the early days of this nation, before and just after the American Revolution, Americans used English, Spanish, and French currencies.

Colonial Notes

1690

The Massachusetts Bay Colony issued the first paper money in the colonies which would later form the United States.

Continental Currency

1775

American colonists issued paper currency for the Continental Congress to finance the Revolutionary War. The notes were backed by the “anticipation” of tax revenues. Without solid backing and easily counterfeited, the notes quickly became devalued, giving rise to the phrase “not worth a Continental.”

Nation’s First Bank

1781

The Continental Congress chartered the Bank of North America in Philadelphia as the nation’s first “real” bank to give further support to the Revolutionary War.

The Dollar

1785

The Continental Congress adopted the dollar as the unit for national currency. At that time, private bank note companies printed a variety of notes.

First U.S. Bank

1791

After adoption of the Constitution in 1789, Congress chartered the First Bank of the United States until 1811 and authorized it to issue paper bank notes to eliminate confusion and simplify trade. The bank served as the U.S. Treasury’s fiscal agent, thus performing the first central bank functions.

Monetary System

1792

The federal monetary system was established with the creation of the U.S. Mint in Philadelphia. The first American coins were struck in 1793.

Second U.S. Bank

1816

The Second Bank of the United States was chartered for 20 years until 1836.

State Bank Notes

1836

With minimum regulation, a proliferation of 1,600 state-chartered, private banks issued paper money. State bank notes, with over 30,000 varieties of color and design, were easily counterfeited. That, along with bank failures, caused confusion and circulation problems.

| | |
|--|--|
| Civil War 1861 | On the brink of bankruptcy and pressed to finance the Civil War, Congress authorized the United States Treasury to issue paper money for the first time in the form of non-interest bearing Treasury Notes called Demand Notes. |
| Greenbacks 1862 | Demand Notes were replaced by United States Notes. Commonly called “greenbacks,” they were last issued in 1971. The Secretary of the Treasury was empowered by Congress to have notes engraved and printed by private bank note companies. The notes were signed and affixed with seals by six Treasury Department employees. |
| The Design 1863 | The design of U.S. currency incorporated a Treasury seal, the fine-line engraving necessary for the difficult-to-counterfeit intaglio printing, intricate geometric lathe work patterns, and distinctive cotton and linen paper with embedded red and blue fibers. |
| Gold Certificates 1865 | Gold Certificates were issued by the Department of the Treasury against gold coin and bullion deposits and were circulated until 1933. |
| Secret Service 1865 | The Department of the Treasury established the United States Secret Service to control counterfeiting. At that time, counterfeits were estimated to be one-third of all circulating currency. |
| National Bank Notes 1866 | National Bank Notes, backed by U.S. government securities, became predominant. By this time, 75 percent of bank deposits were held by nationally-chartered banks. As State Bank Notes were replaced, the value of currency stabilized for a time. |
| Bureau of Engraving and Printing 1877 | The Department of the Treasury’s Bureau of Engraving and Printing started printing all U.S. currency. |
| Silver Certificates 1878 | The Department of the Treasury was authorized to issue Silver Certificates in exchange for silver dollars. The last issue was in the Series 1957. |
| Federal Reserve Act 1913 | After the 1893 and 1907 financial panics, the Federal Reserve Act of 1913 was passed. It created the Federal Reserve System as the nation’s central bank to regulate the flow of money and credit for economic stability and growth. The System was authorized to issue Federal Reserve Notes, now the only U.S. currency produced and representing 99 percent of all currency in circulation. |

**Standardized Design
1929**

Currency was reduced in size by 25 percent and standardized with uniform portraits on the front and emblems and monuments on the back.

**In God We Trust
1957**

Paper currency was first issued with "In God We Trust" in 1957. The inscription appears on all currency Series 1963 and later.

**Security Thread and
Microprinting
1990**

A security thread and microprinting were introduced to deter counterfeiting by advanced copiers and printers. The features first appeared in Series 1990 \$100 and \$50 notes. By Series 1993, the features appeared in all denominations except \$1 notes.

**Currency Redesign
1994**

The Secretary of the Treasury announced that U.S. currency would be redesigned to incorporate a new series of counterfeit deterrents. The new notes will be issued in 1996.



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The U.S. Secret Service and Counterfeiting

- The United States issued its first national currency notes in 1861.
- By the end of the Civil War, one-third of all U.S. paper currency in circulation was counterfeit.
- On July 5, 1865, the Secret Service was created within the U.S. Department of the Treasury with the sole mission of suppressing counterfeit currency. In less than a decade, counterfeiting was sharply reduced.
- To stem counterfeiting, the Secret Service works in conjunction with local, state, federal and foreign law enforcement agencies.
- The Secret Service also maintains close working relationships with the Federal Reserve Banks and domestic as well as international commercial banking institutions.
- Thanks to such cooperation, approximately 90 percent of all known counterfeit U.S. currency is seized before it reaches the public.
- The most passed counterfeit denomination is the \$20 note, followed, respectively, by the \$100 note, the \$10 note, the \$50 note, the \$5 note, and the \$1 note. The \$100 note is the most common foreign-produced counterfeit note.
- To aid in counterfeit investigations, agents use the Service's modern, well-equipped Forensic Services Laboratory that includes:
 - A complete library of specimen notes dating back to 1865;
 - The largest watermark file in existence;
 - The largest ink library in existence;
 - Equipment to examine and analyze notes counterfeited by various types of printing methods as well as by office machine copiers.
- In 1994, the disposition of prosecuted arrests showed a 99.5 percent conviction rate.

For further information, please contact:

United States Secret Service
Office of Government Liaison and Public Affairs
1800 G Street, N.W., Room 805
Washington, D.C. 20223
Phone 202/435-5708



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The Federal Reserve: Central Bank of the United States

Federal Reserve System

The Federal Reserve System was created by the Federal Reserve Act, which was passed by Congress in 1913, to provide a safer and more flexible banking and monetary system. For approximately 100 years before the creation of the Federal Reserve, periodic financial panics had led to failures of a large number of banks, with associated business bankruptcies and general economic contractions. Following the studies of the National Monetary Commission, established by Congress a year after the particularly severe panic of 1907, several proposals were put forward for the creation of an institution designed to counter such financial disruptions. Following considerable debate, the Federal Reserve System was established. Its original purposes were to give the country an elastic currency, provide facilities for discounting commercial credits, and improve the supervision of the banking system.

Economic Stability and Growth

From the inception of the Federal Reserve System, it was clear that these original purposes were aspects of broader national economic and financial objectives. Over the years, stability and growth of the economy, a high level of employment, stability in the purchasing power of the dollar, and a reasonable balance in transactions with foreign countries have come to be recognized as primary objectives of governmental economic policy.

Currency Circulation

An important function of the Federal Reserve System is to ensure that the economy has enough currency and coin to meet the public's demand. Currency and coin are put into or retired from circulation by the Federal Reserve Banks, which use depository institutions as the channel of distribution. When banks and other depository institutions need to replenish their supply of currency and coin—for example, when the public's need for cash increases around holiday shopping periods—depository institutions order the cash from the Federal Reserve Bank or Branch in their area, and the face value of that cash is charged to their accounts at the Federal Reserve. When the public's need for currency and coin declines, depository institutions return excess cash to a Federal Reserve Bank, which in turn credits their accounts.

Unfit and Counterfeit Notes

The Federal Reserve Banks and the U.S. Department of the Treasury share responsibility for maintaining the physical quality of United States paper currency in circulation. Each day, millions of dollars of deposits to Reserve Banks by depository institutions are carefully scrutinized. The Reserve Banks are responsible for receiving, verifying, authenticating, and storing currency and shipping it as needed. Currency in good condition is stored for later distribution. Worn or mutilated notes are removed from circulation and destroyed. Counterfeit notes are forwarded to the U.S. Secret Service, an agency of the Treasury Department.

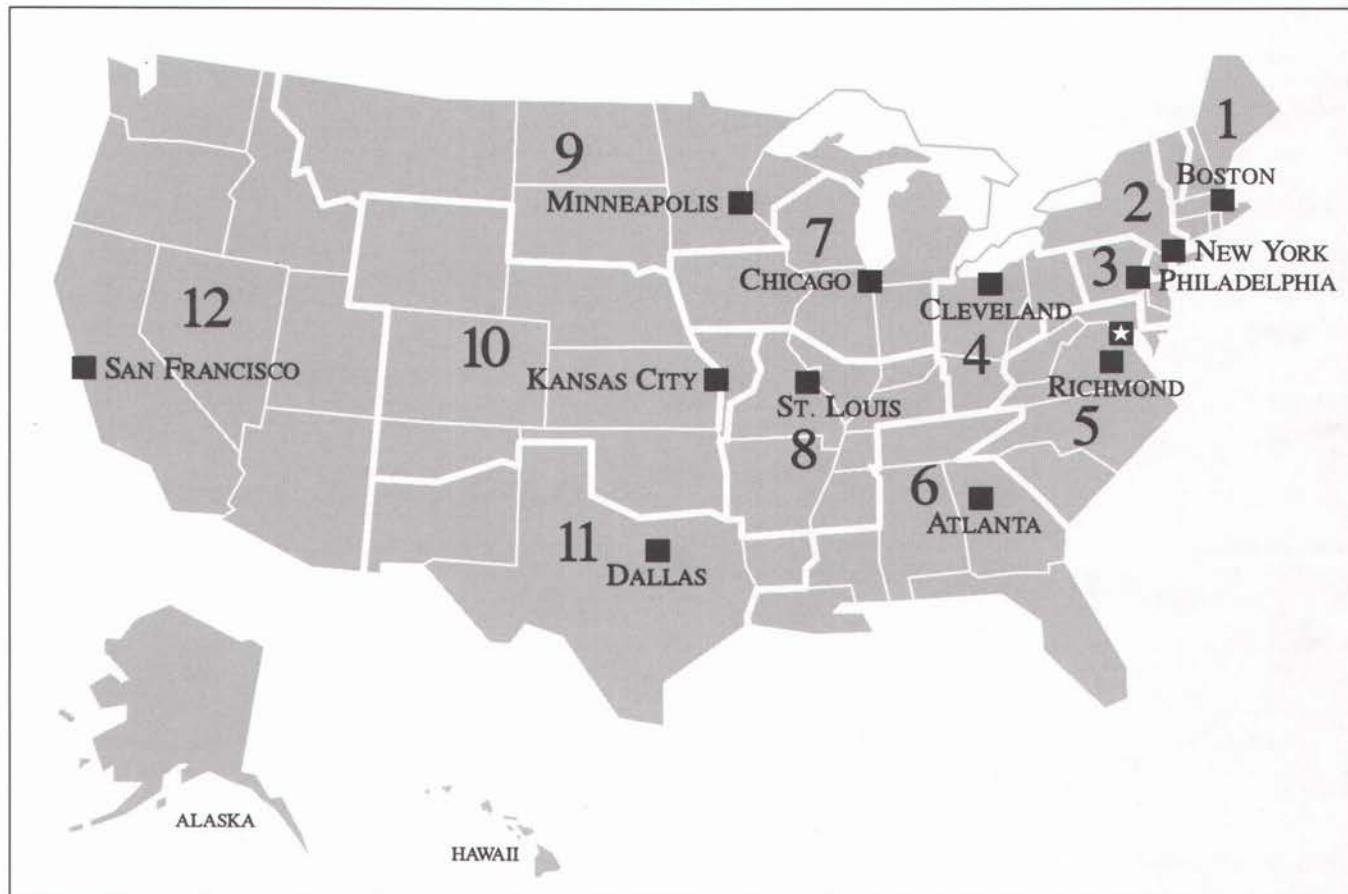
Federal Reserve Notes

Virtually all currency in circulation is in the form of Federal Reserve Notes, which are printed by the Bureau of Engraving and Printing of the U.S. Treasury. The Reserve Banks are currently authorized to issue notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50, and \$100. Coins are produced by the Treasury's United States Mint.

Cash Transfers

Currency and coin are used primarily for small transactions. In the aggregate, such transactions probably account for only a small proportion of the value of all transfers of funds.

Map of the Federal Reserve System



LEGEND

- Federal Reserve Bank city
- ★ Board of Governors of the Federal Reserve System,
Washington, D.C.

List of Federal Reserve System Locations

Board of Governors of the Federal Reserve System, Washington, D.C. 20551

| Federal Reserve Bank | Telephone Number | District | Address |
|--|--|----------|--|
| BOSTON* | 617-973-3000 | 1 | 600 Atlantic Avenue, Boston, Massachusetts 02106 |
| NEW YORK* Buffalo Branch | 212-720-5000 716-849-5000 | 2 | 33 Liberty Street (Federal Reserve P.O. Station), New York, New York 10045 160 Delaware Avenue, Buffalo, New York 14202 (P.O. Box 961, Buffalo, New York 14240-0961) |
| PHILADELPHIA | 215-574-6000 | 3 | Ten Independence Mall, Philadelphia, Pennsylvania 19106 (P.O. Box 66, Philadelphia, Pennsylvania 19105) |
| CLEVELAND* Cincinnati Branch Pittsburgh Branch | 216-579-2000 513-721-4787 412-261-7800 | 4 | 1455 East Sixth Street, Cleveland, Ohio 44114 (P.O. Box 6387, Cleveland, Ohio 44101) 150 East Fourth Street, Cincinnati, Ohio 45202 (P.O. Box 999, Cincinnati, Ohio 45201-0999) 717 Grant Street, Pittsburgh, Pennsylvania 15219 (P.O. Box 867, Pittsburgh, Pennsylvania 15230) |
| RICHMOND* Baltimore Branch Charlotte Branch | 804-697-8000 410-576-3300 704-358-2100 | 5 | 701 East Byrd Street, Richmond, Virginia 23219 (P.O. Box 27622, Richmond, Virginia 23261) 502 South Sharp Street, Baltimore, Maryland 21201 (P.O. Box 1378, Baltimore, Maryland 21203) 530 Trade Street, Charlotte, North Carolina 28202 (P.O. Box 30248, Charlotte, North Carolina 28230) |
| ATLANTA Birmingham Branch | 404-521-8500 205-731-8500 | 6 | 104 Marietta Street, N.W., Atlanta, Georgia 30303-2713 1801 Fifth Avenue, North, Birmingham, Alabama 35203 (P.O. Box 830447, Birmingham, Alabama 35283-0447) |
| Jacksonville Branch Miami Branch Nashville Branch | 904-632-1000 305-591-2065 615-251-7100 | | 800 Water Street, Jacksonville, Florida 32204 (P.O. Box 929, Jacksonville, Florida 32231-0044) 9100 Northwest 36th Street, Miami, Florida 33178 (P.O. Box 520847, Miami, Florida 33152-0847) 301 Eighth Avenue, North, Nashville, Tennessee 37203 (P.O. Box 4407, Nashville, Tennessee 37203-4407) |
| New Orleans Branch | 504-593-3200 | | 525 St. Charles Avenue, New Orleans, Louisiana 70130 (P.O. Box 61630, New Orleans, Louisiana 70161-1630) |
| CHICAGO* Detroit Branch | 312-322-5322 313-961-6880 | 7 | 230 South LaSalle Street, Chicago, Illinois 60604 (P.O. Box 834, Chicago, Illinois 60690-0834) 160 West Fort Street, Detroit, Michigan 48226 (P.O. Box 1059, Detroit, Michigan 48231) |
| ST. LOUIS Little Rock Branch | 314-444-8444 501-324-8300 | 8 | 411 Locust Street, St. Louis, Missouri 63102 (P.O. Box 442, St. Louis, Missouri 63166) 325 West Capitol Avenue, Little Rock, Arkansas 72201 (P.O. Box 1261, Little Rock, Arkansas 72203-1261) |
| Louisville Branch | 502-568-9200 | | 410 South Fifth Street, Louisville, Kentucky 40202 (P.O. Box 32710, Louisville, Kentucky 40232-2710) |
| Memphis Branch | 901-523-7171 | | 200 North Main Street, Memphis, Tennessee 38103 (P.O. Box 407, Memphis, Tennessee 38101-0407) |
| MINNEAPOLIS Helena Branch | 612-340-2345 406-447-3800 | 9 | 250 Marquette Avenue, Minneapolis, Minnesota 55401-2171 (P.O. Box 291, Minneapolis, Minnesota 55480-0291) 100 Neill Avenue, Helena, Montana 59601 |
| KANSAS CITY Denver Branch Oklahoma City Branch Omaha Branch | 816-881-2000 303-572-2300 405-270-8400 402-221-5500 | 10 | 925 Grand Boulevard, Kansas City, Missouri 64198 1020 16th Street, Denver, Colorado 80202 (Terminal Annex-P.O. Box 5228, Denver, Colorado 80217) 226 Dean A. McGee Avenue (P.O. Box 25129) Oklahoma City, Oklahoma 73125 2201 Farnam Street, Omaha, Nebraska 68102 (P.O. Box 3958 Omaha, Nebraska 68103) |
| DALLAS El Paso Branch Houston Branch San Antonio Branch | 214-922-6000 915-544-4730 713-659-4433 512-224-2141 | 11 | 2200 North Pearl Street, Dallas, Texas 75222 (P.O. Box 655906, Dallas, TX 75265-5906) 301 East Main Street, El Paso, Texas 79901 (P.O. Box 100, El Paso, Texas 79999) 1701 San Jacinto Street, Houston, Texas 77002 (P.O. Box 2578, Houston, Texas 77252) 126 East Nueva Street, San Antonio, Texas 78204 (P.O. Box 1471, San Antonio, Texas 78295) |
| SAN FRANCISCO Los Angeles Branch | 415-974-2000 213-683-2300 | 12 | 101 Market Street, San Francisco, California 94105 (P.O. Box 7702, San Francisco, California 94120) 950 South Grand Avenue, Los Angeles, California 90015 (Terminal Annex-P.O. Box 2077, Los Angeles, California 90051) |
| Portland Branch Salt Lake City Branch Seattle Branch | 503-221-5900 801-322-7900 206-343-3600 | | 915 Southwest Stark Street, Portland, Oregon 97025 (P.O. Box 3436, Portland Oregon 97208) 120 South State Street, Salt Lake City, Utah 84111 (P.O. Box 30780, Salt Lake City, Utah 84125) 1015 Second Avenue, Seattle, Washington 98104 (P.O. Box 3567, Seattle, Washington 98124) |

*Additional offices of these Banks are located at Lewiston, Maine 04240; Windsor Locks, Connecticut 06096; Jericho, New York 11753; East Rutherford, NJ 07073; Utica Oriskany, New York 13424; Columbus, Ohio 43216; Columbia, South Carolina 29210; Charleston, West Virginia 25328; Des Moines, Iowa 50306; Peoria, Illinois 61607; Indianapolis, Indiana 46206; and Milwaukee, Wisconsin 53201.

YOUR MONEY MATTERS

Beginning with the \$100 note in 1996, the United States of America is issuing currency with new and enhanced security features. These features will help protect U.S. currency from advancing technologies which could be used for counterfeiting.

There will be no recall or devaluation of any U.S. currency. As old notes reach the Federal Reserve, they will be replaced by the redesigned currency. Whether old or new, all U.S. currency always will be honored at full face value.

Federal Reserve Indicators

A new universal seal represents the entire Federal Reserve System. A letter and number beneath the left serial number identifies the issuing Federal Reserve Bank.

Microprinting

Because they're so small, microprinted words are hard to replicate. On the front of the note, "USA 100" is within the number in the lower left corner and "United States of America" is on Benjamin Franklin's coat.

Concentric Fine Lines

The fine lines printed behind both Benjamin Franklin's portrait and Independence Hall are difficult to replicate.



Color-Shifting Ink

The number in the lower right corner on the front of the note looks green when viewed straight on, but appears black when viewed at an angle.

Serial Numbers

An additional letter is added to the serial number. The unique combination of eleven numbers and letters appears twice on the front of the note.

