







Stater, Lydia (Western Turkey), 700-637 B.C.



Fish Hooks, Alaska, 19th Century



Dracma, Thessaly (Eastern Greece), 400-344 B.C.



Silver Tiger Tongue, Laos, 19th Century

Public Information Department Federal Reserve Bank of New York 33 Liberty Street New York, New York 10045 January 1977 The story of money began when man learned he could trade for things he wanted, rather than produce them himself. However, without a common standard of value trade was often difficult. A fisherman, for example, couldn't get wheat from a farmer who didn't like fish.

Man soon learned to use prized ornaments or long-lasting food items as a standard by which values could be compared. Beads, shells, stones, furs, fish hooks, grain and cattle were a few items used as money from time to time. Money, then, should be a generally acceptable medium of exchange.

Because money's acceptability was generally greater if it was durable and easy to carry, metal money became popular. About 2,500 B.C. the Egyptians produced one of the first types of metal money in the form of rings. The Chinese used gold cubes about 400 years later. The Lydians (Western Turkey) first struck metal coins about 700 B.C. The coins, made from an alloy of gold and silver called electrum, were bean-shaped pellets stamped with rough impressions. The Greeks and Romans contributed much to the art of coinage. Some of the world's most beautiful coins were struck during the Golden Age of Greece—400 to 300 B.C. For centuries coins remained the favored medium of exchange.

Paper money is related to the clay tablets on which the Babylonians wrote due bills and receipts about 2,500 B.C. Marco Polo reported that the Chinese Emperor Kubla Khan issued mulberry bark paper notes bearing his seal and the signatures of his treasurers in 1273 A.D. The oldest surviving specimen of paper money is the Kwan, a Chinese note issued between 1368 and 1399 during the Ming Dynasty. The note is about the size of a sheet of typewriter paper.

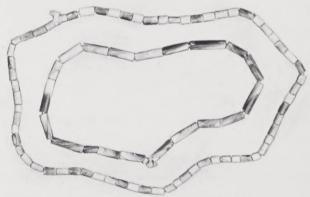
Metal coins lost some of their appeal during the Middle Ages as travel became more common. Their weight and the fear of robbers made coins impractical. Instead, travelers went to goldsmiths to exchange



Pine Tree Shilling, Massachusetts, 1652



Bank Note, China, 1368-1399



Wampum, American Indian, 18th Century

their coins for a receipt that was valueless to a robber. The receipt could be exchanged for coins with a designated goldsmith in another city. This custom grew in popularity until people used the receipts to pay debts, rather than withdraw the actual coin. In effect, this was paper money at work.

The early colonists departing for North America left behind a well-developed coinage system. The few coins they brought with them quickly returned to Europe to pay for imports, and the colonists began engaging in primitive barter or using Indian wampum as money. A group of settlers soon learned to counterfeit wampum, however, and it lost its value.

For home trade, the product most widely used in an area became money. For example, in Virginia it was tobacco and in Massachusetts it was grain, fish and furs. Throughout the colonies gunpowder and bullets were frequently used for small change.

After trade with the West Indies developed, Spanish eight-reales pieces circulated widely. These coins, known as "pieces of eight," became a standard money that was used with official sanction until 1857. Colonists frequently cut these coins to make change. Half a coin was "four bits" and a quarter section was "two bits."

Massachusetts became the first British colony to make its own coin. In 1652, it began striking "pine tree" shillings in a mint opened in Boston. Several types of shillings as well as six- and three-pence pieces were produced until the Crown closed the mint in 1686.

During the period between the Declaration of Independence and the adoption of the Constitution, several states authorized coin issues. The first national coin wasn't struck until 1787, when Congress engaged James Jarvis to make copper one-cent coins. One side of the coin was decorated with a chain of 13 links encircling the motto *We Are One*. The other side bore a sun dial, the noonday sun, and the word *fugio*,





U.S. Silver Center Large Cent, 1792

the three elements signifying "time flies." Below the dial was the phrase Mind Your Business—an admonition to diligence, not the caustic expression of today. Because these expressions were suggestive of the spirit of Poor Richard, the coin became known as the Franklin cent, although no evidence exists that Benjamin Franklin played any role in its design.

Congress established a mint in Philadelphia in 1792, and the nation's first cents and half-cents were struck in 1793. They were copper and about the size of present-day quarters and nickels. Silver half-dimes, half-dollars, and dollars were added in 1794, and a year later gold "eagles" (\$10) and "half-eagles" appeared. The motto *E Pluribus Unum* was first used on the half-eagle of 1795. The next year our first quarters and dimes were issued.

In 1690, soldiers from Massachusetts returned from an unsuccessful siege of Quebec, tired and beaten. Without the booty a victory would have provided, the colony could neither pay for the cost of the expedition, nor feed and pay hundreds of hungry and near mutinous soldiers. Out of this dire need, the colony issued bills of credit (promissory notes) — the first paper money in America and in the entire British Empire.

Other colonies printed their own paper money. The notes circulated freely and were even torn into pieces to make change. Some issues were excessive, however, and quickly sank to small fractions of their face value. Despite the depreciation, bills of credit helped offset some of the difficulties caused by scarce metallic money in an expanding economy.

Then came the American Revolution. Facing huge expenses without adequate taxing power, the Continental Congress authorized a limited issue of paper money in 1775. However, several additional issues followed quickly, resulting in rapid depreciation. As George Washington commented: "a wagon-load of money will scarcely purchase a

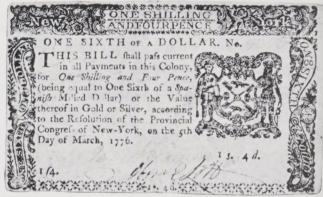


Continental Note, 1779





Continental Note, 1776



New York Note, 1776



Continental Note, 1778



Continental Note, 1779

wagon-load of provisions." The currency's vanishing value led to the term for worthlessness that remains today—"not worth a continental."

In 1790, Congress authorized the Treasury to accept continentals at the rate of 100 to 1, in payment for bonds of the new Federal Government. The feeling toward paper money was so bitter that a provision permitting Congress "to emit bills on the credit of the United States" had been struck from the first draft of the Constitution, and the final version forbade states from issuing bills of credit. More than 70 years passed before the Federal Government issued paper money.

On several occasions (1812-15, 1837-43, 1846-47, 1857, 1860-61), mainly connected with wars and depressions, the Treasury issued small amounts of notes, most of them interest-bearing. Although issued as a type of bond, some of these notes appear to have had limited circulation as currency.

The notes of the first and second banks of the United States made up the bulk of the paper money circulating in the nation's early years. When the second bank closed in 1836, more than \$23 million of its notes were outstanding.

After the bank closed, notes issued by state-chartered, private banks became the dominant form of currency. Each bank designed its own notes, so they differed in size, color and appearance. By 1860, an estimated 8,000 banks were circulating notes. Because these notes had varying degrees of acceptability and were not always redeemable in gold or silver on demand, they often circulated at substantial discounts from face value. All of these conditions made counterfeiting relatively easy and bogus notes abounded.

The first paper money actually issued by the Federal Government consisted of \$10 million of noninterest-bearing demand notes issued in 1861 to finance the Civil War. These notes, popularly called "greenbacks," were redeemable in coin on demand at certain





Demand Note, 1861



Postal Currency, 1862

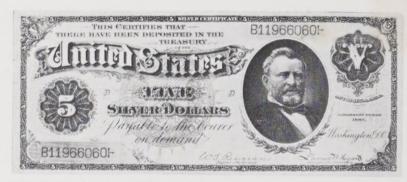
designated sub-treasuries. In 1862, Congress issued \$150 million of United States notes, and retired the demand notes. The new U.S. notes were made legal tender for all debts, except import duties and interest on public debt. Second and third issues of \$150 million each were authorized in 1862 and 1863 and, by early 1864, more than \$449 million was outstanding. Today, about \$323 million of United States notes are still outstanding, mostly in \$100, \$5 and \$2 denominations. By law, the Treasury must keep the amount of U.S. notes outstanding at about \$323 million.

The Treasury stopped redeeming U.S. notes in coin during the Civil War and did not resume redemption until 1879. Following the suspension in 1862, silver coins were hoarded and disappeared from circulation. For a time people used tickets, due bills and other forms of private obligations to make change.

Postage stamps were a widely used form of small change, and were even authorized as "fractional currency" by Congress. Later a modified stamp called postal currency was issued, and, finally, \$50 million of fractional paper currency in the same denominations as silver coins was authorized. These "paper coins," which were much smaller than our present currency, were known as "shinplasters." "Shinplasters" were no longer needed after the war and Congress authorized their redemption and retirement in 1875 and 1876.

The motto *In God We Trust* was coined during the Civil War and appeared on the 1864 two-cent piece. The motto subsequently appeared on many coins, and, since 1938, all U.S. coins bear the inscription. *In God We Trust* first appeared on paper money in 1957 when it was used on the one-dollar silver certificate and today appears on all U.S. currency.

The first gold certificates were issued in 1865. They were issued against gold coin and bullion deposits first in \$20 denominations and later in \$10 and higher denominations. Gold certificates circulated until 1933.



Silver Certificate, 1886

The Treasury was authorized to issue silver certificates in 1878. They were issued in exchange for silver dollars, called "cartwheels," which were not very popular because of their size and weight. In 1890, Congress directed the Treasury to purchase 4,500,000 ounces of silver monthly at the market price with "Treasury notes of the United States." These notes, known as "Treasury notes of 1890," were legal tender and redeemable on demand in either gold or silver coin at the Treasury's discretion. Fixed monthly purchases of silver with Treasury notes were stopped in 1893, when almost \$156 million of the notes were outstanding, and Congress later provided for the cancellation and retirement of this issue.

However, the Treasury continued to exchange silver certificates for silver dollars and to purchase silver as needed for new coinage. In 1934, the Treasury's authority was expanded to permit the issuance of silver certificates equal to its silver bullion purchases.

In the late 1950s, rising world demand for silver as an industrial metal began pushing up its price. To avoid the possibility that the value of silver in coins might exceed their face value, the Treasury began selling silver from its stockpile in the open market. However, demand continued high and soon threatened the Treasury's inventory for coinage.

To meet this demand and maintain a stock of silver for coinage, Congress in 1961 authorized the retirement of \$5 and \$10 silver certificates. Demand continued to grow, and, in 1965, Congress eliminated silver from quarters and dimes and reduced the silver content of half-dollars from 90 to 40 percent. Silver was eliminated from halves entirely in 1970. The old coins were gradually removed from circulation and replaced with new coppercored coins that were faced or "clad" with layers of an alloy of 75 percent copper and 25 percent nickel—the same alloy used in nickels.

In 1967, with only \$150 million in silver certificates still outstanding, Congress authorized the Treasury to stop redeeming silver certificates in silver dollars or bullion beginning the following year.



## **How Coins and Currency Get Into Circulation**

Among its major objectives, the Federal Reserve Act of 1913 called for the establishment of Federal Reserve Banks and the furnishing of an "elastic" currency—a currency responsive to changing public demands. Those objectives have long since been achieved.

When people want more coin or currency, they cash checks—exchanging one form of money, checkbook money, for another, cash. Banks, in turn, "buy" cash to meet these demands from Reserve Banks with a special checkbook money—reserve balances—they have on deposit at Reserve Banks.

As people spend their newly obtained cash it flows back into the banking system in the form of business and individual deposits. As banks accumulate more cash than needed for day-to-day transactions, they deposit it for credit to their own checking accounts at Reserve Banks.

Of course, coin and currency receive a certain amount of rough handling in circulation. When deposits are counted at the Reserve Banks, unfit currency is culled, cancelled, verified and destroyed (either burned or shredded and processed into a mulch). Unfit coin is returned to the Mint for melting and recasting.

As additional coin or currency is needed by the Reserve Banks to replace unfit cash or to meet expanding demand, orders are placed with separate Treasury divisions—the Bureau of the Mint for coin and the Bureau of Engraving and Printing for currency.

Although there are no longer any specific gold backing requirements, most Federal Reserve Banks continue to pledge a portion of their gold certificate credits as collateral against their outstanding notes. Government securities acquired over the years by the Federal Reserve provide about 85 percent of the necessary collateral.

Today, the Federal Reserve determines how much overall money—cash and checkbook money—should circulate to keep our economy healthy. The public, however, determines how much coin and currency and in what denominations.





National Bank Note, 1917

Most paper currency circulating between the Civil War and the First World War, however, consisted of national bank notes. This currency, uniform in size and general appearance, was issued by banks chartered by the Federal Government under the National Bank Acts of 1863 and 1864.

National banks obtained notes by delivering a certain amount (based on capitalization) of special, registered U.S. bonds to the Treasury. The banks were then entitled to receive from the Comptroller of the Currency paper money equal to 90 percent of the value of the bonds. Total currency for all banks was limited to \$300 million until 1870, when it was increased; in 1875, the limitation was removed. By 1913, almost \$700 million of national bank notes were circulating and the Treasury, of course, held bonds as backing. When the last of these bonds matured in 1935, national bank notes were retired as they were deposited in Federal Reserve Banks.

In 1913, Congress created an independent central bank—the Federal Reserve—to solve long standing money and banking problems that periodically plagued the nation. Congress, acting under its Constitutional power to "coin money" and regulate its value, authorized the establishment of a network of 12 regional Reserve Banks, supervised by a Board of Governors in Washington, D.C.

The Federal Reserve Act granted the twelve Reserve Banks the right to distribute their own notes, called "Federal Reserve Bank notes." Like national bank notes, they were issued on deposit of U.S. Government securities. Later "eligible" commercial paper—the short-term inventory loans of business—were accepted as security.

Unlike their predecessors, Reserve Bank notes were "elastic." Each Reserve Bank issued notes in relation to the needs of its own area. As demand for currency increased, new notes were issued. After demand subsided, the currency would filter back into the Reserve Banks in the form of deposits or loan repayments.



Federal Reserve Note, (Portrait: Salmon Chase, Treasury Secretary 1861-64), 1934

Reserve Bank notes were obligations of the individual banks. In 1914, Federal Reserve notes, which were obligations of the U.S. and first liens on all assets of the issuing Reserve Bank, were issued. In 1933, Federal Reserve notes were made full legal tender for all debts, public and private. Virtually all paper currency in circulation today consists of Federal Reserve notes.

Each Reserve Bank was originally required to maintain a gold reserve of at least 40 percent against notes in circulation. The requirement was reduced from 40 to 25 percent in 1945 and eliminated entirely in 1968.

Federal Reserve notes are issued in denominations from \$1 to \$100. In 1969, \$500, \$1,000, \$5,000 and \$10,000 notes were retired because of declining demand. Federal Reserve notes are furnished to the Federal Reserve Banks through the Comptroller of the Currency, and under the supervision of the Federal Reserve Board of Governors. They are made by the Bureau of Engraving and Printing.

A Federal Reserve Bank desiring Federal Reserve notes applies to its Federal Reserve Agent (who is a representative of the Board of Governors and chairman of the Reserve Bank's Board of Directors) and submits collateral equal in value to the notes requested. This collateral can consist of gold certificates, special drawing rights certificates, U.S. Government securities or collateral received in making loans.

The round seal which appears to the left of the portrait on the face of Federal Reserve notes designates the issuing Reserve Bank. The full name of the Bank is given in the outer edge of the seal, and a large letter within also identifies the Bank (A for the Boston Reserve Bank, B for New York, C for Philadelphia, and so on to L for San Francisco). There is also a numerical identification about an inch from each corner (1 for Boston, 2 for New York, and so on).

Perhaps the most unusual notes issued by the Treasury were the gold certificates issued to the Federal Reserve Banks. The certificates,



Gold Certificate, 1934

issued in denominations of \$100, \$1,000, \$10,000 and \$100,000, represented pledges of the monetary gold stock of the United States. Except for some actual certificates that Reserve Banks use for public educational displays, gold certificates — about \$11.6 billion — have been converted to bookkeeping credits.

In recent years, the nation's money has taken on some new faces. In 1959, for example, the reverse side of the penny was changed to incorporate an engraving of the Lincoln Memorial to complement the Lincoln portrait on the obverse side. The earlier version, which incorporated the motto *E Pluribus Unum*, the designation "One Cent" and the words "United States of America" had circulated since 1908.

The Franklin half-dollar, one of the few pieces of current American money to picture an individual who was not a president, was replaced in 1964 by the Kennedy half-dollar. The Kennedy half, which bore the presidential seal on its reverse side, was cast with 90 percent silver in 1964, and 40 percent silver from 1965 to 1970, then changed to a clad coin.

The venerable silver dollar fell victim to the silver shortage and, except for some numismatic pieces, was withdrawn from circulation. The one-dollar coin reappeared in 1970 as the Eisenhower dollar, a clad coin. A few pure silver pieces were struck for collectors when the coin was introduced. The reverse side of the coin shows an eagle landing on the moon, symbolizing the landing of the Apollo spacecraft.

In 1975, the Treasury issued a series of bicentennial coins, including an Eisenhower dollar showing the Liberty Bell and the moon on the reverse side. The half-dollar pictured Independence Hall, and the quarter a colonial drummer on their reverse sides. The original designs were reinstated in 1977.

The Treasury also reissued a new \$2 Federal Reserve note in 1976 in conjunction with the bicentennial. One side of the note bears an





Federal Reserve Note, 1976

engraving of the early 1800s portrait of Thomas Jefferson painted by colonial artist Gilbert Stuart. The same portrait appeared on the earlier \$2 U.S. note. The other side is a vignette based on John Trumbull's painting "The Signing of the Declaration of Independence." Six figures appearing in the extreme left and right of the Trumbull original were deleted for esthetic reasons.

Two-dollar notes have a long history in the United States. First issued by the Continental Congress in 1776, the bills have appeared over the years as over-size U.S. notes, silver certificates, Treasury notes, national bank notes and Federal Reserve notes. A variety of portraits have appeared on two-dollar bills over the years. The previous printing was the 1963-1963A series of U.S. notes in May 1965. The notes had been discontinued for a time because of lack of public demand.

Our money has changed many times over the years. In the past, when cash was either gold or silver or redeemable in one of these precious metals, coin and currency played a major role. Today, with checkbook money accounting for the bulk of our spending, the role of coin and currency has been reduced.

At the same time, money's nature has changed. In the days of golden "eagles" and silver "cartwheels," money's intrinsic worth was a paramount measure of its value. Today, money's value is measured not by its material worth but by what it can buy—its purchasing power. Along with this change in money's nature, the Federal Reserve's focus has shifted too, from the completed goal of providing the nation with an elastic medium of exchange to the continuing goal of maintaining our money's purchasing power. How the Federal Reserve tries to accomplish this difficult and delicate task is another story.

