## GOLD, SILVER and COPPER

By the early 1700s, seafaring nations like Spain, Portugal, the Netherlands, Great Britain and France dominated international trade, particularly around the Atlantic Ocean rim. It was convenient for these countries to have money that was similar in size, weight and precious metal content, so that no matter whose coins arrived in the next ship, merchants would have a good idea what they were worth. Spanish coins were the most common, due to the vast amounts of silver and gold found in their American colonies. Spain's big one-ounce silver "piece of eight" reales was the most common coin found in world trade. From 1537, its silver content remained relatively stable for more than 250 years, even after smaller Spanish coins were devalued (made with less silver content.)


Spanish 8-reales hammered "cob" (pre-1733)

In gold, the ducat, worth about two dollars, was a European standard, but not nearly as stable as the Spanish dollar or guilder. Spanish gold coins ranged from the dime-size escudo, which was a ducat worth 16 reales, the 2 -escudo pistole also known as the double escudo, the 4-escudo "double pistole" to the big, 8 -escudo "double-double


British guinea 1791 pistole" known to English-speakers as the "doubloon." British and French colonies in Africa provided gold but little silver. Their "guineas", named for their place of origin, and Louis d'or were also widely circulated. For some reason Portugal was the odd country, minting Brazilian gold into the moeda d'ouro "moydore" and dobra "Johannes or Joe" to


Spanish "doubloon" 1809

Another hotbed of international trade was around northern and central Europe, using coins based on German silver and Hungarian gold. German kings, princes, counts, dukes and electors in the loose confederation known as the Holy Roman Empire each coined their own money, theoretically to an imperial standard. Their silver thalers, daalders, and crowns were similar to the 8 -reales, which became known as the Spanish dollar.

Another very stable silver coin was the Dutch gulden or guilder, worth about
 40 cents. European gold coins included ducats and pistoles, sometimes called duplones, but few larger coins. These coins also circulated in the Mediterranean, but there the terminology was even more confusing. A
 dollar might be called a piastre, a gulden a florin, and ducats could be

Bavarian thaler 1770 either gold or silver. European small change was even more varied!

Dutch guilder 1764 To cope with these hundreds of coins, Europeans used several "moneys of account" keeping the books in standard, sometimes imaginary denominations, and only converting to coin value when a bill was to be paid. The Germans used reichsthalers, the French livres, even the British pound had no exactly equivalent coin until 1817.

Of course, few ordinary people ever saw a gold coin, let alone a doubloon which was the equivalent of about a thousand dollars in today's money. But the small change followed roughly the same rules. An American silver quarter was worth about the same as a similar size 2-reales, a British shilling, a Hamburg marck, a French 1/5 $e c u$, franc or Italian lira. By the mid 1800s few of the smaller coins contained the full value of silver.


Size comparison: 2-reales, shilling, early \& modern quarters The 2 -reales is larger but thinner - about the same weight.

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Although the British had plenty of gold they were always short of silver in the $17^{\text {th }}$ and $18^{\text {th }}$ centuries, partly because they were frequently at war, hence not trading, with Spain. They also refused to devalue their silver coins until 1816, long after most other countries, so when the price of silver rose, their coins were worth more than face value and people hoarded, melted, or traded them overseas or for gold. The U.S. had the same problem until the mid-1800s. British silver coins were in such short supply that they were forbidden to circulate in the American colonies. Spanish silver coins were most common in North America, and our money was based on the Spanish, which was legal tender here until 1857. (But our gold and copper coins were closer to the British.)


British 1737 half penny and 1 cent, 1802

Finally the lowly coppers. British coppers did circulate in America, but were not closely regulated, often under-weight or counterfeit and had mostly token value. The main thing to remember is that a British penny (the plural is pence) was worth TWO American cents! A penny is not a penny and pence are not cents. But in the $18^{\text {th }}$ century there were 108 half-pence to an American dollar (100 cents). So the British half-penny (sometimes pronounced "hayp'nee") circulated widely in the colonies, was similar in size and value to an American (large) cent and was also legal tender in the U.S. until 1857. A French sol or "sou" and a German kreutzer were also about 1 cent, but beware! A centime was not a cent and a pfennig was not a penny. See the Coin Chart.

Of course, precious-metal coin values did fluctuate against one another. Prices of gold and silver responded to new ore discoveries, wars and recessions. When a king got up one day and decreed that the coin of the realm would have a little less silver from now on - it did! More often governments tried to set gold and silver prices as an economic tool, similar to the way the Federal Reserve sets interest rates today. Every so often one major country reformed or revalued its currency (usually downward), followed by everyone else in 10 or 20 years. This happened in the early 1700s, the mid 1700s, around the Napoleonic Era, and again by the mid 1800s about every 50 years. Although worth enough to make counterfeiting profitable, copper was of minimal, mostly token value until the Industrial Revolution, when its price suddenly rose due to demand for things such as steam boiler tubes and telegraph wires.
But our interest is that the approximate value of a silver dollar was remarkably stable over a 200 year time period, until World War I, while wages increased only slightly. The British sterling value of a silver dollar changed only once in that time, and the Dutch guilder was equivalent to 40 cents from at least 1600 until the advent of the Euro! Gold prices fluctuated more than silver, so its easy to compare to Spanish and American dollars, which everybody can relate to. In our comparisons of coins, we refer to their approximate value in U.S. dollars and cents.


## Dime-value Coins

Clockwise from top left: Spanish real, 1783
British sixpence, 1757
French 10 sols, 1707
U.S. Dime, 1878

German 1/2 mark, 1916 Modern dime, center.

Half Dime-value Coins
Clockwise from right:
Spanish 1/2 real, 1766
Spanish quartered 2-reales
US 1/2 dime, 1861
Canadian 1/2 dime, 1907
Modern nickel, center


