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## When Fiat Was the Solution



## The Panic of 1789

January $5^{\text {th }}, 2012$


HERE are always two sides to a coin as well as issues. When it comes to this argument that only gold should be money and all "fiat" is really worthless, the premise is about as sound as saying markets only decline because of short players. Paper currency began in the West as receipts for coin that was placed into storage at a money dealer/merchant. The problem with "tangible" precious metals is the same today as it was in the 1500 s. The problem is simply its authenticity. Coins were routinely clipped (shaved down) and thus they did not fairly reflect the intended or original quantity of precious metals. Each coin had to be inspected for each and every transaction. This was the same problem from the very beginning of monetary history and this played a major role in the Panic of 1789 that took place solely in the United States focused in New York City and Philadelphia.

## Lydia 7th Century BC

the first step in coinage - standardized weight

From ancient times the problem has always been to verify the quality and authenticity of the precious metals in a transaction. Pictured above are the first "coins" produced in Lydia, the city of Sardes located in modern Turkey. At first it was a standardize weight with punch marks on one side to facilitate trade. These were replaced with a design of a lion on one side. Look closely at the coin


Highly Worn Stater with 9 countermarks to the right. You will notice additional punch marks on the edge. There are nine in total showing that each time the coin changed hands, the moneychanger (ancient FX dealer) placed his mark on the coin verifying he tested it before.


We have all heard of "fool's gold", which is simply a pyrite, or iron pyrite, that has a metallic luster of a brass-yellow hue which has earned it this nickname since it resembles gold. This has been used to dupe many a person over the 6,000 years of history. Aside from that substitute, all sorts of tricks have been played to plating coins as well as debasing the metal fineness. Here is a gold plated English half-penny of Queen Victoria (1838-1901). It feels light, looks great, but it can easily slip-by in a large transaction unless you check each and every coin. It is just a gold plated copper coin.


Victoria (1838-1901) Gold Plated Half-Penny


The trick of debasing coins has been around in ABSOLUTELY every society in every corner of the globe. Above is a visual example or the debasement of the gold coinage of the Byzantine Empire going into the Great Monetary Collapse of 1092. Silver was being mixed with gold so going into 1092, what was once gold had been debased to such a point it was reduced to just a silver coin. This prompted a major economic reform and in 1092, gold coinage had to be restored. However, this did not last long and gold disappeared once again.

We see debasement everywhere. In China, bronze coins were debased using iron. We can see once again the visual debasement of bronze coinage in Japan and the steady reduction in weight. There is simply NO exception in history where debasement has not occurred. This is why I have stressed that it is NOT the fact that money is fiat, but the fact that government can never resist spending more than it has.


Adam Smith in his Wealth of Nations wrote in Chapter III, Of the Accumulation of Capital, or of Productive and Unproductive Labour:

That kings "are always, and without any-exception, the greatest spendthrifts in the society. Let them look well after their own expense, and they may safely trust private people with theirs. If their own extravagance does not ruin the state, that of the subject never will."

So the problem has never been "fiat" or even what is money. The problem has always been that government simply cannot live within its means. It is always this tendency to debase the money supply
to create more spending power, and/or to borrow as much as they can with no intention of ever paying anything back. In Chapter III, of Public Debts, Smith also wrote about the fiscal mismanagement of government and their constant abuse of credit.
"Like an improvident spendthrift, whose pressing occasions will not allow him to wait for the regular payment of his revenue, the state is in the constant practice of borrowing of its own factors and agents, and of paying interest for the use of its own money."


Sir Thomas Gresham (1518-1579)
debasement had the tendency to also reduce the money supply. The gold coinage under Elizabeth was slightly debased from . 994 (1559-1578) to . 979 (1583-1600) for the "Fine Sovereign" and the lessor denomination less than 30 shillings were .916 fine. Her father, Henry VIII (1509-1547) debased the silver by about $50 \%$ from 1544 to 1546 and the gold he debased from 23 carat to eventually 20 carat. Obviously, making gold money will accomplish nothing. It is always the debt.

Sir Thomas Gresham (1518-1579), under Queen Elizabeth (reigned 1558-1603), was the financial agent of the crown. In effect, Gresham was in Antwerp acting as agent borrowing money for the Crown in the money market there.

What became obvious was that one could borrow in precious metal based coin, agree to repay, and then debase the coinage to cheat the lender. Gresham's Law is thus stated that bad money drives out good money, meaning that people will hoard the old coinage and spend the new debased coinage and thus


Queen Elizabeth (reigned 1558-1603)
Ryal 15 shillings . 916 fine


## The United States "Dollar"

圖HE United States dollar was actually based upon the Spanish silver 8 Reales coins that had become the mainstay of the European monetary system since the treasure ships from the Americas began pouring gold and silver onto the streets of Europe. Such coins were first minted by the Spanish in America during 1530. These early pieces are known as "cob" coinage and tended to vary in weight in addition to being struck rather irregularly. The designs were never fully struck and as such the coinage appeared very crude. Introduction of machine "milled" did not take place until 1732 and thus it is from that period onward that we find the term "milled" dollars distinguishing the standardized products from that of this early "cob" coinage. The gold coinage was often referred to as a doubloon.

There had been a great scarcity of coins in the New World, especially in the more remote areas. The early colonists sometimes used other mediums of exchange, such as bullets, tobacco, animal skins, and even adopted the Indian monetary system using mussel shells strung-together into what would appear to be a necklace called wampum composed of polished beads made from seashells.

Wampum was made from hard-shelled clams, usually the Northern Quahog (purple) and Atlantic Whelk (white), which were broken up into small beads, polished, drilled through lengthwise, and then strung together. Native Americans were the first makers of wampum where in Asia similar value was attached to pearls. It took a considerable amount of labor to produce these strings, and it was their natural beauty and scarcity that gave wampum its intrinsic value. In this sense, wampum emerged as a medium of exchange because of its attractiveness which was the same reason gold became desirable or pearls in Asia.

Throughout much of the 17th and 18th centuries, the exchange rate for white wampum was 360 beads $=5$ shillings and 6 beads $=1$ penny. The Purple wampum, less abundant in nature, was worth at least twice as much as the white. Wampum was even legal tender for paying taxes due to the Commonwealth of Massachusetts. Even tuition at Harvard University was payable in wampum as was transportation costs such as the passage on the Brooklyn Ferry. Wampum became less important for barter; however it was not until around 1890 that the last wampum mill shut down.


## Ferdinand \& Isabella I (474-1504)

The coinage actually minted in Spain was quite professional as illustrated by this 2 Excelente gold piece depicting the two Catholic monarchs who funded Columbus' journey. Consequently, the production of "cob" money was not to facilitate a circulating medium of exchange for Europe, but more of a colonial/transportation coinage that was used in the Americas and was remelted into European style coinage upon arrival in Europe.


## Spanish "Pillar Dollar" 1739 8 Reales

In the Americas, there was clearly the dominance of Spanish coinage and the absence of English. These Spanish silver "milled" dollars were also known also as "Pillar Dollars" based upon the design showing two worlds the old and the new. They were minted between 1732 and 1771 with a weight of 26.8 grams.

The term "Piece of Eight" refers to the fact that these coins were often cut into "pieces" to make small change. These pieces were called a "bit" representing 12.5
 cents and thus 8 bits was equal to 8
 shillings which equaled a pound. By the time the US dollar was created in 1794, "two bits" was equal to 25 cents (quarter dollar). Here we have two bits stamped Saint Lucia Island declaring this to be a valid coin of the colony.

These bits are common also among the cob coinage. They tend to be referred to also a "fleet money" implying their ultimate export to Europe. They are also commonly reffrered to as "pirate money" since this is the booting seized from a treasurr ship.


Nevertheless, the very first paper money issued in the American colonies reflected the English monetary system. Illustrated here is a note from 1717 issued by the colony of New Hampshire in the amount of 4 shillings and sixpence. This note states it is an "indented bill" of credit. Effectively, these notes were IOUs in the form of circulating bonds that paid $5 \%$ interest and were receivable for taxes. They were known as "cypher'd bills" where the first issue was also known as "red figured bills" whereby the monogram was that of Queen Ann.

This is true for the first issues of paper money in 1690 at Massachusetts Bay Colony. Additionally, looking at Pennsylvania, the early denominations of paper currency were clearly in the British monetary system. Illustrated above is a note of Delaware issued in a British denomination of 40 shillings in 1760.


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Philadelphia, ca. 1718. The Library Company of Philadelphia

## Continental Currency

General George Washington told Congress "the soldiers eat every kind of horse fodder but hay". Revolutionary Soldiers were promised six dollars and two thirds to be paid monthly. Pay was made until August, 1777, when it ceased. Inflation had been unbridled and of course the politicians viewed its rise due to corruption rather than the lack of confidence in the currency being backed solely by promises. The six dollars and sixty seven cents of this "Continental currency" was virtually worthless for it would scarcely purchase a man a single dinner. Virginia was the richest state and to defend it, in the year 1781, they paid the soldiers in species.


George III (176o-182o) Gold Guinea (one pound)

The cost of the American Revolution was huge, not just to the Americans, but also to Britain and set in motion the rise in British debt. Britain's total accumulative war expenditures against the Americans, French and Spanish cost about $£ 100$ million. The Gold Guinea was first issued in 1663 and weighed 8.4 grams. The price of gold was never really fixed and it rose in value considerably thanks to the massive import of silver from the New World. The Guinea began as one pound equal to sterling silver constituting 20 shillings. By the start of the reign of William \& Mary (1689-1694), the Guinea rose in value relative to silver reaching 21s 6 d. By 1694 , gold rose sharply against silver causing the Guinea to circulate now at 30s. By 1696, all the coinage of England was recalled due to massive clipping while about $10 \%$ of the silver coin was counterfeit. The other problem was the great fluctuation between gold and silver, which made trying to maintain some sort of standard impossible. The value of


Spanish Dollars Counterstamped by George III as Emergency Issue
silver bullion in Paris and Amsterdam was greater than the face value in London, which prompted a tremendous arbitrage whereby silver simply migrated from Britain to the Continent. This shortage of silver contributed to the American Colonies adopting silver coinage of Spain. The Guinea ceased to be minted between 1797 and 1813 during the Napoleonic War. We also find Spanish silver dollars (8 reals) being counterstamped by Britain making them 4s 9d in value illustrating the shortage of money during this period in time. A series of bad harvests pushed up food prices and this culminated in riots in 1801-1802 in addition to the shortage of money. In 1804, these Spanish dollars were raised in value to 5 s. Finally, It was not until the recoinage of 1816 that when silver coins were declared legal tender only for sums of money up to $£ 2$ and the gold Guniea was replaced by the Sovereign with a reduced fineness to 22 carat values at 20 shillings. The silver coinage was also reduced to ensure that the stated value of the coinage was greater than the metal content.

The British Treasury borrowed $40 \%$ of the money it needed to fund the war effort and had maintained good credit. In sharp contrast, the Continental Congress and the American states had persistent difficulty in financing the war. In 1775 there was at best $\$ 12$ million dollars in gold in all the colonies. There was no enough to finance trade no less a war. The British made tightened the noose by enforcing a blockade on every American port in an effort to cut off trade to starve the colonies into submission. Consequently, at first the resistance was composed of largely volunteer militiamen, while donations from patriotic citizens also help to a marginal extent. The American government now delayed payments on just about everything including soldier's pay. Then soldiers' pay and suppliers were paid in depreciated paper currency with the promise to pay at the end of the war in Spanish milled dollars. In 1783 the soldiers and officers were then given land grants to cover the wages they had earned but had not been paid during the war. Finally, in 1781, when Robert Morris was named Superintendent of Finance of the United States, this experience financier took charge of the financial matters. Morris used a French loan in 1782 to set up
 the private Bank of North America to finance the war. Morris introduced efficiency by creating competitive bidding for contracts in addition to introducing accounting procedures that had not existed and demanded the full share of money and supplies from the states for the federal government.

The American cost of the war was about 66 million dollars in specie (gold and silver). Congress issued of paper currency in 1775-1780, and again in 1780-81. The first issue amounted to $\$ 242$ million dollars. This paper currency would supposedly be redeemed for state taxes. By 1780, the paper currency was "not worth a Continental", as they said, and yet a second issue of new currency was attempted. Once again, this second issue also became virtually worthless. Nonetheless, the Continental Currency issue was redeemable in 1791 at the rate of one cent on the dollar. Additionally, the States had issued over 200 million dollars of their own currency.

The depreciation of the paper currency amounted to an effective tax on the people. Inflation has always an indirect form of taxation that imposes a hardship on those with fixed incomes. Debtors benefit since
 they are able to pay off their debts with depreciated currency, which included the private sector as well as government. The farmers tended to ride the inflation wave as commodities prices rose in terms of the depreciating currency. Ironically, the greatest burden fell upon the soldiers of the Continental Army, whose wages were delayed and their pay declined in value every month.

The first Continental currency series was May 10, 1775 for a total issue of $\$ 3$ million payable in Spanish milled dollars. The denominations issued ranged from $\$ 1-\$ 30$. The notes states:
"This Bill entitles the Bearer to receive Four Spanish milled Dollars, or the Value thereof in Gold or Silver, according to the Resolutions of the CONGRESS, held at Philadelphia, the 10th of May, 1775."

All subsequent issues merely change the date of the resolution authorizing the issue and the denomination. On November 29, 1775, the second issue of Continental currency totaling $\$ 3$ million was payable in Spanish milled dollars. The denominations issued for the second series range from $\$ 1-\$ 8$.

An additional \$10,000 was approved on January 6, 1776 to exchange warranty billows that were outstanding. The third series was issued May 9, 1776 totaling \$5 million also payable in Spanish milled dollars. The denominations of this third series range from one dollar to eight hours.

The fourth series was July 22, 1776 once again totaling $\$ 5$ million. It was this fourth


American Colonial Continental Dollar - 1776 series where we find the smallest denomination in paper currency was ranging from $\$ 2$ up to $\$ 30$. The absence of a one dollar note reflected the contemplation of issuing a one dollar silver coin - the Continental Dollar pictured above.

be redeemable in Spanish silver milled dollars. Of course, this promise of redemption in Spanish coin was never regarded very highly among the citizens. Consequently, the notes tended to trade at a discount to the stated redemption promise, which in truth was never honored by the new United States government no less the Continental Congress.

The fifth series of Continental currency totaling \$5 million was authorized by the November 2, 1776 resolution. The denominations of the series range from $\$ 2-\$ 30$.

There was also authorization to issue half \$1 million in small fractional notes reflecting 19161 third and two thirds of the dollar. This indicates that there was a shortage of small change developing. However, no notes were actually printed.

The sixth issue was authorized by resolution on February 26, 1777 totaling $\$ 5$ million. The denominations ranged from $\$ 2-\$ 30$ and still stated that the notes were to


Sixth Issue - February 26th, 1777


The seventh issue of Continental currency totaling \$16,500,000 and was authorized by resolution May 20, 1777. The denominations still range from $\$ 2-\$ 30$ and stated that the bearer was entitled to Spanish milled dollars. The cost of the Revolutionary war was clearly rising rapidly for the eighth issue of Continental currency was authorized on April 11, 1778 with a total issue now of $\$ 25$ million. The denominations are now $\$ 4-\$ 40$. The notes still suggested that the bearer will receive Spanish milled dollars or quote the value bearer of in gold or silver according to a resolution of Congress. The ninth issue of Continental currency was authorized by September 26, 1778 resolution with a total issue of $\$ 75,001,080$. The denominations now range from $\$ 5-\$ 60$. These bills passed at about $22 \%$ of their species value when first issued reflecting the lack of confidence that existed in the redemption of these notes.

The 10th issue of Continental currency was authorized January 14, 1779 by resolution of Congress with a total issue of $\$ 95,051,695$. The caption on these notes still suggested that the bearer would receive Spanish milled dollars however $\$ 50,000,400$ was intended to exchange older notes issued on May 20, 1777 and April 11, 1778 which were called in for redemption because of extensive British sponsored counterfeiting. The denominations now ranged from $\$ 1-\$ 80$ dollars.


Essentially, all issues of Continental currency continued to be the foundation of speculation in the American colonies after their circulation ceased in April 1780. The articles of Confederation had promised payment on this outstanding currency. However it was not until the Constitution United States in 1787 Dave validity's to such allegations that some hope a partial payment was there by revised. On October 9, 1787, Continental currency was selling on the open market for $\$ 250$ equal to $\$ 1$ in actual species.


AE "Fugio cent," New Haven mint, 1787

## Monetary Crisis of $\mathbf{1 7 8 9}$

One of the most important events in the Monetary History of modern society was the Crisis of 1789 that is once again largely omitted from the history books. During the colonial period there was an inadequate coin supply throughout the American colonies. Colonists had to adapt to foreign silver coins as the British government outlawed the export of silver coinage from the homeland and discouraged colonial minting. This is the primary reason why the most popular coin became the Spanish 8 Reales, even though there were Dutch coins that had also been used from the late 1500s.

Maintaining an adequate money supply of small change copper coins in America had also been a continual problem. There was no restriction on importing copper coins whereas Britain needed silver and gold and thus sought to extract specie from the colonies. The colonists had to look toward foreign coinage for their silver since they could only expect to be paid by the British in small change coppers. The earliest supplies of copper coins were privately imported. In 1681 Mark Newby brought a large supply of Irish St. Patrick coppers to New Jersey. The Quakers brought some 300 pounds of British halfpence and farthings to Philadelphia in 1682.


Richard Holt's - 1688 American Plantations Token


Mark Newby - St. Patrick "Halfpenny" of Ireland

Not only did the British pay the American colonists in lightweight base metal coinages, this had set the tone where monetary transactions between the British and Americans were one of a financial adversarial confrontation. In 1688, with government approval, Richard Holt coined tin "American Plantations Tokens" that were never accepted by the colonists due to their base metal.


During 1722-1724 William Wood made another attempt at minting coins for the colonies obtaining royal authorization to produce "Rosa Americana" coppers, which were actually made of a compound called Bath Metal that was composed of Brass, zinc and a tiny bit of silver. These coins were two and a half times lighter than royal British halfpence and were also rejected by the colonists as being worth less than a real copper. In Massachusetts the colony printed small change currency notes on parchment so citizens would have an alternative to the hated Rosa Americanas. Wood had produced coinage for Ireland with the reverse depicting Hibernia. Because of their unpopularity in Ireland, these also found their way to the American Colonies.


First Issue - Threepence Second Issue - Value Me As You Please

The shortage of money in the American Colonies had set the stage for the evolution of paper money. In 1737, Samuel Higley minted his own coppers in Simsbury, Connecticut in an effort to deal with the shortage. These were made of good copper and Higley marked a value of three pence on the coins. However, the supply of these coppers was certainly not enough for all the colonies, but they were too much for that region. Colonists began to protest against their value. Higley had to issue a new series still
 noting "III" for the value, but the legion now read "VALUE ME AS YOU PLEASE - AM GOOD COPPER."

The money supply was largely made up of tokens, counterfeit and some royal British coppers imported from Britain and Ireland. Finally, during 1734-1735 an unknown number of tons of copper coins were made their way to Georgia. There was such a shortage of small change that Massachusetts began to issue small change currency issued in June of 1722 (of parchment 1d, 2d and 3d notes) to prevent the
acceptance of William Wood's base metal Rosa Americana coinage. An emission of $£ 2,625$ in small change bills of credit was again authorized on July $7^{\text {th }}, 1737$, which were issued at 658 d per ounce of silver that was a $300 \%$ increase in value of small change over the 1722 issue. A third issue in 1742 represented a $400 \%$ increase in the value of small change over 1722 . It was not until 1749 when Massachusetts received payment of 800,000 royal halfpence and 420,000 royal farthings as part of a reimbursement for expenses incurred during a military expedition against Fort Louisbourg on Cape Breton. Counterfeit coppers were now starting to find their way to America in quantity. During 1753 in Boston and New York notices began to be posted regarding the seizure of large quantities of lightweight counterfeit halpence coins that were being smuggled into the colonies.

Privately minted coins (tokens) continued to appear to try to deal with the chronic shortage of money, Undenominated tokens most likely designed by James Smither of Philadelphia in 1766 that honored William Pitt as a leader in repealing the Stamp Tax, made their debut. In 1765, in order
 to pay for the French and Indian Wars, the British Parliament imposed a system of stamp tariffs on the American colonies. William Pitt, with strong backing in England, took up the colonists' cause and demanded a repeal of the Stamp Act. The work of Pitt and Benjamin Franklin led to its repeal in 1766. Thus, the Pitt tokens were a bit more patriotic compared to Woods' Rosa Americana issues.


Finally, it was in 1773 just before the war that at last about five tons (approximately 670,000 coins) of specially designed halfpence were minted in London for the colony of Virginia. These were official coins struck by England. By no means did this solve the shortage of coin in the Colonies. Still, it reflected that Britain would not provide gold or silver coins for the American Colonies.

Nonetheless, tokens continued to be struck as was the case of the Rhode Island Ship Tokens. The obverse shows Lord Howe at anchor and the reverse shows the American forces in retreat. There were also some French coppers that circulated in the New World as well being struck in 1670, 1722 and again in 1767. There had also been English Elephant Tokens the circulated being struck back in 1694.


Rhode Island Ship Token ( 1778 -1779)

## Chamber of Commerce <br> fusाumer ol Comulusice

Today, the Chamber of Commerce is but a hallow shell of what it once was. The After the New York Chamber of Commerce was founded in 1768 and it actually served as a place for merchant deliberations on agreements that were recorded, what also took place there was the establishing of currency exchange rates. During this period, the exchange rates in effect in New York were routinely published in especially the Gaine's New-York Pocket Almanac. Whenever the New York Chamber of Commerce changed the exchange rates and established the minimum allowable weight for guineas due t6o the problem of clipping, the almanac values would immediately reflect the changes. (John A. Stevens, Jr. Colonial Records of the New York Chamber of Commerce, 1768-1784, New York: John F. Trow \& Co., 1867, pp. 56-7. 69)


The New-York Pocket Almanack for the Year 1771

The exchange rate table above, reproduced from The New-York Pocket Almanack for the Year 1771, illustrates how the early colonial foreign exchange market operated in reality noting: "At a Meeting of the Chamber of Commerce, the $\mathbf{7}^{\text {th }}$ of August 1770..." Here we can see the foreign exchange rates for English, Spanish, Portuguese, French, and German currencies against English, New York, Philadelphia, and Quebec with the minimum weights acceptable. We can see that a Guinea was of bdifferent value in Philadelphia compared to New York.


## Coppers after the Revolutionary War

Prior to the American Revolution, the only copper coins minted by England were the halfpenny with a weight of 11.78 grams and the farthing. Pictured here are the post-Revolution issues of 1797 known as the twopence "cartwheel" of 57.6 grams and the penny of 28.37 grams . During the Revolutionary war the occasional supplies of British coppers which had sustained the colonies through trade were completely cut off. The small change money supply became even more critical because what supplies had existed of coppers were melted down for the war effort. Throughout the American Revolution all coins simply became scarce. The substitute became the ever increasing supply of small change paper currency notes printed by some of the states as well as by individual businessmen in order to even conduct business.

Many British manufacturers saw America as a profitable market to mint coins. Suddenly, a flood of lightweight coppers for use in America began to emerge. The Nova Constellatio was


1785-1787 Immune Columbia Pieces


1783-1785 Nova Constellatio First struck at 55, then 60 and finally 72 coins per pound of copper
created by a joint partnership that even included Governor Morris of New York. Additional pieces appeared such as the Immune Columbia displaying liberty with the scales of justice.

# United States Coppers Post-Revolution 



1776 New Hampshire


1786-1787 New York


1785 Bar Cent


1787-1788 Massachusetts


1786-1788 New Jersey

${ }_{17} 87$ Fugio Cent


1785-1788 Connecticut


1785-1788 Vermont


1783-1795 Wasington Cents

The chronic shortage of coinage was addressed as states began to mint coins. New Hampshire was the first out of the gate in 1776, but it did not introduce any real quantity. The Republic of Vermont opened a mint for coining coppers in 1785 and was soon followed by the state of Connecticut. In 1786 New Jersey began minting followed by New York and then Massachusetts in 1787. By 1787 the Continental Congress also began to produce copper coinage authorizing the Fugio Cent designed by Ben Franklin, whereas previously, they had produced only Continental Dollars in silver and white metal.

The minting of coins was put out for contract and there was lively bidding on the expectation that this would be a highly profitable venture. However, competition for the contracts was extensive and all but Massachusetts awarded contracts to private parties. Contractors soon realized that the minting process was far more costly than anticipated. Consequently, the quality of the product began to decline with time and this resulted in a form of debasement whereby the idealized weight was not maintained. Profits were achieved only by issuing lighter weighing coins.

The copper coinage was being dramatically reduced. The British regal copper halfpence weighed about 153.3 grains. Only the Massachusetts and Federal Fugio copper issues were produced at the British standard, with weights that even exceeded slightly coming in about 157.5 grains. Vermont coppers were the lowest with a weight of about 111 grains. Connecticut coppers were slightly reduced with a weight of about 144 grains. New Jersey coppers were very close to the English standard with a weight of about 150 grains. Counterfeits of Connecticut coins were also being made with a lightweight counterfeit causing the Connecticut coppers to be viewed a suspect.

# Copper 1784-1937 

US Cents per pound


During this period individuals were keenly aware of the circulation of lightweight and counterfeit coppers. The confidence in the currency simply collapsed. Individuals effectively stopped accepting the inferior lightweight coppers and they began to trade at substantial discounts. On March $5^{\text {th }}, 1787$ the New York Assembly issued a report discussing the copper coinage then in circulation. The report stated copper coinage in New York consisted of mostly British counterfeits, Irish halfpence, and counterfeit New Jersey coppers. [Crosby, Sylvester S. The Early Coins of America; and the Laws Governing their Issue, 1875, rpt., New York: Sanford Durst, 1983 pp. 290-292]

Responding to this report on April $20^{\text {th }}, 1787$ the New York legislature passed an act regulating the circulation of copper coins prohibiting the circulation of coppers "except such as are of the Standard and weight of one third part of an Ounce avoirdupois, of pure copper.." (145.8 grains) and that such "coppers shall pass current at the rate of twenty to a Shilling of the lawful current Money of this State and not otherwise." New York declared that any other coin it might regularly seize and "...shall forfeit five time the Value of the Sum for which such coppers shall be so offered or passed in payment,..." Similarly, New Jersey passed a law that after July 20, 1787 only New Jersey coppers and the federal Fugio cents would be legal tender money in the state and would pass at the exchange rate of 15 coppers per New Jersey shilling of account.

With the enactment of such laws, the value of the lightweight coppers began to plummet. This contributed to the closure of mints in Connecticut, Vermont and Massachusetts the next year in 1788. While Massachusetts had continually produced full weight coins, their value in exchange was depressed and thus their actual cost to produce them was double their purchasing value. In New Jersey there were serious problems as well to the point that by the end of 1788 the only coppers being produced were the lightweight counterfeits at the private mint of Thomas Machin in Newburgh, New York. In Elizabethtown, New Jersey, Matthais Ogden was taking lightweight coins he purchased at a discount and overstamped it as a New Jersey copper passing them off at 15 to the shilling.

The Federal "Fugio" cent production of James Jarvis also amounted to fraud. Jarvis had produced only about 400,000 Fugio cents while illegally diverting most of the copper to produce some 3,500,000 unauthorized lightweight Connecticut coppers that had flooded the economy. This first shipment of Fugio cents was delivered to the treasury in May of 1788. Jarvis had gone to England in search of buying additional copper. His partner and father-in -law realized the fraud would be expose and he fled Connecticut for England. The Federal government was now also left without its copper and money supply.


George Washington Inaugeration April 30th, 1789

## The Panic of 1789

Against this backdrop, the state of the coppers insofar as a viable money supply was particularly deplorable in New York where the only mint was Machin's counterfeiting operation. With the money supply flooded with underweight coppers that were now officially illegal, the public simply lost all confidence in coppers. It was in New York City during summer of 1789 the Panic of 1789 unfolding just a few months after George Washington became President and the French Revolution began.

February $4^{\text {th }}, 1789$ marked the election of George Washington and the birth of the United States government when he was inaugurated on April $30^{\text {th }}, 1789$. Meanwhile, unemployment in Paris reached about 150,000 out of a total work force of 600,000. This set the stage for the French Revolution. On July $11^{\text {th }}$, Louis XVI of France fired the popular Chief Minister Necker and the following day an angry Parisian mob demonstrated against the King's decision to dismiss Minister Necker. Tensions were rising in Paris and the next day, July $13^{\text {th }}$, the people began to seize arms for the defense of Paris. Then on the memorable next day, July $14^{\text {th }}$, the French Revolution (1789-1799) began with citizens of Paris storming the Bastille to free seven prisoners. In rural areas, peasants began to attack noble manors. On August $4^{\text {th }}$, French members of the Constituent Assembly took an oath to end feudalism and abandon their privileges. By August $26^{\text {th }}$, the Declaration of the Rights of Man was proclaimed in France by the Constituent Assembly. In October 1789, about 7,000 women marched 12 miles ( 19 km ) from Paris to Versailles to demand action. On December $23^{\text {rd }}$, a leaflet began to circulate in France accusing Marquis de Favras of plotting to rescue the royal family. Conspiracy plots began ushering the Reign of Terror.

The United States Department of the Treasury was founded on September $2^{\text {nd }}, 1789$ with the Department of State following on the $15^{\text {th }}$ of that month. On September 24 - The Judiciary Act of 1789 establishes the federal judiciary and the United States Marshals Service. By September $29^{\text {th }}$, the US Department of War established the nation's first regular army.

The value of colonial coppers collapsed. It was on July $12^{\text {th }}, 1789$ when the New York Common Council recommended valuing coppers at 48 to the shilling compared to 15 to the shilling which had been the official value just across the river in New Jersey. Merchants refused to cooperate and soon coppers were being refused in trade at any price. Coins that had traded at 14 to the shilling in New York City were now completely worthless. An advertisement in the New York Daily Advertiser that appeared on July $24^{\text {th }}$, 1789 captured the financial chaos.

## C O P P E R S ,

TAKEN for YORK RUM, on delivery, at No.
21, Ferry-street, at SIXTY to the SHILLING, or
10d per pound.

This was a hyperinflation of tangible coins where the CONFIDENCE simply collapsed. Rum dealers were now offering to take them at 60 coppers to the shilling reflecting a near $430 \%$ rate of inflation within one year. On August $3^{\text {rd }}, 1789$, the collapse in the value of money had continued where The Federal Gazette in Philadelphia reported the value of coppers had fallen now to 96 coppers to the shilling. The New York Packet on August $18^{\text {th }}, 1789$ it reported that business failures were everywhere and food was no longer available be it bread or vegetables in the marketplace. Not even full weight coppers were negotiable. The entire money supply became suspect. The Federal government abandoned all hope of issuing copper coins and sold their supply full weight Fugios to a speculator at a discount. The speculator, Royal Flint, received the coins in June of 1789. The panic had already begun. The value of the

Fugios collapsed to at best 29 cents for every 100 Fugio cents. He lost everything and ended up in debtor's prison unable to pay what he had bargained for.


The epic center of the Panic of 1789 was New York City and Philadelphia. On August $6^{\text {th }}, 1789$ the Bank of America in Philadelphia printed 1d and 3d small change notes to help alleviate the economic crisis. The notes were printed by Benjamin Bache in Philadelphia on paper that had been supplied by Benjamin Franklin with a marbled border along the top of the sheet. This emergency solution was greeted with great eagerness and this lead to a real boom in small change note production. Here we have the tangible coins collapsing in value and a fiat currency replacing them. By September 1789, New York City had now communicated a strategy whereby they were accepting only New Jersey coppers and no other coins of any other origin. This measure at least stabilized the crisis to some extent whereby the value of New Jersey coppers returned to 24 to the shilling, which was an improvement to the 60 level or higher, but still well above the intended official value of 15 to the shilling. Outside of New York City, coppers were still trading over 60 to the shilling. Even by September 1789, the price for coppers in Connecticut was still trading at least at 48 to the shilling. The Panic did not reach Boston where coppers were trading at 18 coppers per shilling, but an arbitrage was quickly developing whereby worthless coppers from New York and Philadelphia were making their way northward in trade. It was really the fiat small change notes that help to stabilize the financial crisis. Numerous businesses and churches now began to issue small change notes in substitute of actual coins.

The Panic of 1789 illustrated the crisis in CONFIDENCE. The transition to becoming the United States was not entirely smooth sailing. It was the Whiskey Rebellion that began in 1791 against federal taxation. This came to a climax on August $7^{\text {th }}, 1794$, when then President George Washington issued a proclamation and summoned almost 15,000 troops using the military against American citizens. This was the action that gave birth to Thomas Jefferson's Democratic-Republican Party to opposed Federalism.


Whiskey Rebellion (1791-1794)

In 1792, there was finally agreement that the coinage should not portray the picture of the President, but of Liberty. The coins proposed were designed and produced by Robert Birch. The penny


Disme

Robert Birch - 1792


Half-Disme illustrated here contains a center spot of silver. This is clearly a desire to avoid the problems of the Panic of 1789 with debased and underweight coppers. This coin was never produced. Likewise, there was also proposed the silver 5 cent (Half-Disme) and 10 cent pieces (Disme).


The following year, 1793, saw the beginning of the new Federal monetary system. The first coins to appear were the half-penny and the penny. These coins were reduced in weight from the 1792 Birch series with the half-penny dropping from 132 grains to 104 by the Act of January $14^{\text {th }}, 1793$. The weight would be further reduced to 84 grains on January 26, 1796. Eventually,
the penny fell from13.48 grams
in 1793 to 3.11 grams in 1864 with the introduction of the Indian Head penny. The silver center in the Birch cents was eliminated for 1793.

The Act of April 2, 1792, which established the U.S. Mint,

1793 Firs Issue of US Coinage


Penny (One Cent) authorized the production of the

(


United States Silver Dollar . 8924 fine silver with a weight of 416 grains or 26.9563 grams. A troy ounce weighs 480 grains and thus the silver dollar began with a gross weight of .866 of an ounce with a fine silver weight of only .773 of a troy ounce. The United States continued to mint silver dollars until 1804. Britain had stopped striking gold coinage in 1797 and did not resume until 1813 after the Napoleonic War. It was during this period in time that Britain was counter-stamping Spanish silver dollars and thus in 1804 it began to over-strike these coins with British designs. The United States did not resume striking silver dollars until 1837.


## CONCLUSION

We must realize that there are always two sides to every issue. Paper currency is NOT the problem. The problem has always been the fiscal mismanagement. There are plenty of examples from history that illustrate that a paper currency that is maintain with fiscal management has produced a stable monetary system without chronic inflation. But to assume that merely returning to tangible coinage will solve all the problems is simply childish. There is 6,000 years of history to draw from and you cannot find a single empire or nation no less a city state that has ever not debased its currency or borrowed without fiscal restraint and collapsed.

The first step in solving our problems is to identify what is actually causing the problem. To return to a gold standard solves nothing. What about the outstanding debt? We will still go broke regardless of what we call money because we CANNOT service the outstanding debt that is there.

We must tackle the real problem. We must eliminate the existing debt and by law prohibit ANY public borrowing whatsoever be it directly or indirectly through debasement be it by increasing the supply of money in an intangible system or by reducing the metal content in a tangible system. WE NEED TERM LIMITS to prevent a professional political class and we MUST eliminate the party backroom dictatorships. We do NOT have a democracy for we can vote for an individual, but he is constraint to vote as the backroom dictatorship instructs him to retain party support and funding. All elections MUST be funded by the state no private funding whatsoever be it direct or indirect. Anyone may run and to get state funding he must win in the run-offs as they unfold.


## World Economic Conferences



## 2012 Conferences <nTए rounglgucez

We will be holding three World Economic Conferences this year. These will be substantially different from the Philadelphia Conference. That was a combination of an Analytical Training Seminar and a World Economic Conference. Normally, each type of session is a two day event. Consequently, these two events had to be crammed into two days. Unfortunately, we could not accommodate everyone. We had to turn down 365 people. Traditionally, these events are limited to 100 attendees. Because of the overwhelming response, the room was full to capacity at $300+$. That prohibited Mr. Armstrong from mingling with the crowd at the cocktail party and he was unable to see each and every person. These three upcoming conferences will be smaller, just forecasting, and will be two day events instead of the single day WEC which was provided in Philadelphia. Seating will be $\$ 1500$ per seat. Those who are interested in attending please send your email to reserve a seat to:

## 2012WEC@HotMail.COM

## Roman Coins



A lot of people have written asking how they can buy Roman Coins. I have contacted some old friends and have managed to get a deal for those who just want a piece of history rather than go collecting expensive rarities. Here are three Roman Emperors of the mid to late $3^{\text {rd }}$ Century that are common enough to satisfy that desire to own a piece of history. Aurelian (270-275AD), Probus (276-282AD), and Carinus ( $283-285 \mathrm{AD}$ ) are relatively common enough emperors to provide a nice piece of history you can actually touch. These coins are usually sold for $\$ 100$ or more on Ebay. The Aurelian and Probus are available at $\$ 50$ and $\$ 65$ respectively. The third is Carinus which has most of the silver plating intact, which is quite rare to find. These are available at $\$ 150$ each. Since there is no desire to get into this business, but this is purely an accommodation for so many people that have written, the supply is limited and it is on a first come first serve basis.


Lucius Domitius Aurelianus was born of humble parents at Sirmium sometime between 207 and 215 AD most likely on September 9th, 214 AD. Aurelian adopted a military career, and by his skill, courage and bodily strength he ultimately became one of the Empire's greatest generals of the 3rd century. Aurelian's reputation as a commander of cavalry was perhaps his greatest strength.

During the siege of Mediolanum (Milan), Aurelian became embroiled with Marcus Claudius (Claudius Gothicus) in an imperial intrigue. Gallienus was murdered, and Claudius Gothicus became Emperor, with Aurelian serving as Master of the Horse. A series of campaigns against the Goths followed, but in January 270 AD, Claudius died of the plague in Sirmium. His brother Quintillus aspired to the throne, but Aurelian gained support of the army and was elevated to the throne over Quintillus, who later killed himself.

The state of the Roman Empire was deplorable at the time when Aurelian came to power. The barbarians hoards were threatening the frontiers across much of the north. The usurpers had virtually divided the Roman world with Tetricus on the Rhine at the head of a Gaulish Empire begun under Postumous and Zenobia, the Queen of Palmyra, stood in the East with various generals and pretenders in her camp.

Aurelian, faced with enormous political and economic difficulties, took the only offensive course of action that was open to him. The Empire, he concluded, had to be strengthened and reunified. It would be his determination alone that would postpone the collapse of the Roman Empire and win for him in the process, the title Restitutor Orbis, the "Restorer of the World."

Aurelian began his restoration of the Empire by marching first against the Germanic Juthungi, who had invaded the province of Baetia and thus threatened Italy. Aurelian forced the barbarians into a retreat and routed them on the Danube. The Juthungi sued for peace, and Aurelian allowed them to return home. Aurelian then headed for Rome, where he received the imperial powers from a rather reluctant Senate.

Shortly thereafter, Aurelian received an urgent request from the province of Pannonia, where the Vandals were on the attack. Aurelian responded quickly by crushing them in 270-271 AD. Once again, the German Juthungi threatened Rome but this time they allied themselves with the Alamanni and the Marcomanni. The tribes ambushed Aurelian near Placentia, defeating him and forcing a retreat into northern Italy. However, the Germans were too disorganized to follow up on their victory, and Aurelian used the time to rebuild his defenses on the north. He marched against the Germans a second time and this time virtually exterminated them all.

Aurelian returned to Rome in 271 AD, where he had to pacify a terrified city. He immediately halted the rioting and restored order to the capital. The controller of the mint in Rome began a rebellion over the monetary reforms laid out by Aurelian. He ordered that all the debased currency be purchased back and replaced with a new currency of higher content in silver. The rebellion was led by Felicissimus. It appears that those who had been running the mint were embezzling the intended silver and issuing the debased coinage at least in part on their own authority. Obviously, any reform to the monetary system that called for an increase in silver content would have been unprofitable for those running the mint for personal gain. In the rebellion, as many as 7,000 soldiers died when Aurelian was forced to trap and execute them and their allies, some of senatorial rank, in a terrible battle on the Caelian Hills.

The barbarian invasions had made a profound impact upon Rome. It was the first time they saw their city as being vulnerable. Aurelian thus commissioned new defense walls (the Aurelian Walls) to encircle Rome itself, although they were not fully completed until the reign of Probus. Nonetheless, these are the great walls of Rome that still remain largely intact today.

Aurelian then turned his attention to Thrace, which had been invaded by the Goths. Aurelian invaded with his usual determination and reconquered the region while chasing the Goths back over the Danube. Aurelian realized that the imperial frontiers were proving impossible to defend, and as a result, the province of Dacia, the conquest of Trajan, was entirely abandoned.

With the northern frontiers reestablished, Aurelian then turned his attention to the Palmyrene Queen, Zenobia. A battle near the Orontes River ended the revolt of Palmyra. Then, in 274 AD, Aurelian turned his attention this time toward the usurper state - the Gallo-Roman Empire of Postumous. Aurelian marched into Gaul to attack the usurper Tetricus and his Gallic supporters. At the battle near Chalons, Tetricus abandoned his troops and surrendered. The Empire had been pacified, and Aurelian could at last look forward to a splendid triumph in Rome.

Both Queen Zenobia of Palmyra and Tetricus, former Emperor of the Gallo-Roman usurper state, appeared as captives in the magnificent triumph which the Emperor celebrated in Rome where at last senatorial resistance to his position finally disappeared.

With the Roman Empire restored and military conquests complete, Aurelian turned his attention to the domestic reform issues of the state. The currency of the Empire had been severely reduced in value, plagued by countless debasements one on top of the other. The once silver denarius had been replaced by the double denarius of Caracalla (Antoninianus) and that had been reduced to a mere bronze shell of its former glory. The continued debasements had caused massive inflation, and the Empire would not survive without also restoring the monetary system.

Aurelian's reforms did not end with the monetary system. He also attempted to end the social and moral decay that had festered amid such poor economic conditions. Aurelian sought to somehow unify society as a way to accomplish this so he also tried to reform religion. From the East, Aurelian tried to encourage religious devotion to the sun god, Sol Invictus. His goal was to develop a universal deity that would unite the pagan world. In the process he began the persecution of the Christians once again in an effort to create social unity.

Aurelian had one last goal in mind so with his domestic reforms accomplished, or underway, he returned to the East during the summer of 275 AD with a glorious ambition for the conquest of Mesopotamia. Always the disciplinarian, Aurelian caught his secretary, Eros, in a lie during the campaign and promised dire punishment. Eros, fearing the worst, went to the Praetorian Guards and told them that Aurelian was planning to kill them as well. In
an effort to save his own skin, Eros began a plot which proved to be successful. Aurelian, at the age of 68, was assassinated at Caenophruriun in Thrace and Rome lost not merely one of its greatest generals, but a man truly worthy to have occupied the throne of the Roman Empire.

## $\$ 50$ ea

(M. Aurelius Probus). Born at Sirmium in 232 AD, Probus adopted the profession of arms and gained rapid promotion until, by the reign of Aurelian, he had become one of the leading generals of the Empire. Soon after the death of Tacitus he was proclaimed emperor by his troops and, following the murder of Florianus, he became undisputed master of the Roman world. His reign was notable not only for his considerable military successes, but also for his attempt to restore the economic life of the Empire. To this end he introduced viticulture into several of the western provinces, and had he been able to carry out all his plans the Roman State might have recovered much of its ancient power and prestige. However, in the autumn of 282 AD he was murdered at Sirmium by a band of mutinous soldiers who were enraged at having been employed on public works instead of
 military duties.

## $\$ 65$ ea

## SILVER PLATING MOSTLY INTACT

(M. Aurelius Carinus). The elder son of Cams, Carinus was born about 249 AD and was given the rank of Caesar
 soon after his father's accession. When his father and his younger brother set out for the Eastern frontier early in 283 AD, Carinus was left in Rome to look after the government of the Western provinces, and in July or August of the same year he was raised to the rank of Augustus. Early in 285 AD he left Rome to meet the challenge of M. Aurelius Julianus who, after having been proclaimed emperor in Pannonia, was marching against Italy. Carinus defeated him near Verona, but then had to advance against Diocletian who had been proclaimed emperor by the Eastern army following the death of Numerian. In the battle which followed, Carinus was victorious, but soon afterwards he was murdered by one of his own officers, and the Empire fell into the hands of Diocletian (spring, 285 AD).

## \$150 ea

## 2012 Subscription Services DnDactibloto DGu atcer



We will be starting up the subscription and per access service to the regular forecasting. This will not alter the current public service reports on explaining the events that surround us. The subscription services will be the computer generated reports that will cover the entire world. These reports will provide the specific forecasts for time and price. Those who are not trading will still have free access to the reports provided currently. Nothing there will change.

As far as services are concerned, there will be the general written reports on a monthly basis per market. You can obtain access on this level that will be reasonably priced for the average individual. For the institutions and individuals, there will be the daily reports available per access so you can gear the level of service and the number of markets to you particular needs.

We will also restore the alert service where you can input which markets to watch and the computer will send you an alert when it is time to add a position or to change direction. This will provide the full world economy for those with major portfolios. Those interested may get on the list by sending an email to:

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[^0]:    Delaware 40 shillings (Two pounds) May 31, 1760 Printed by Ben

