TECHNICAL SCOOP
CHART OF THE WEEK

Charts and commentary by David Chapman

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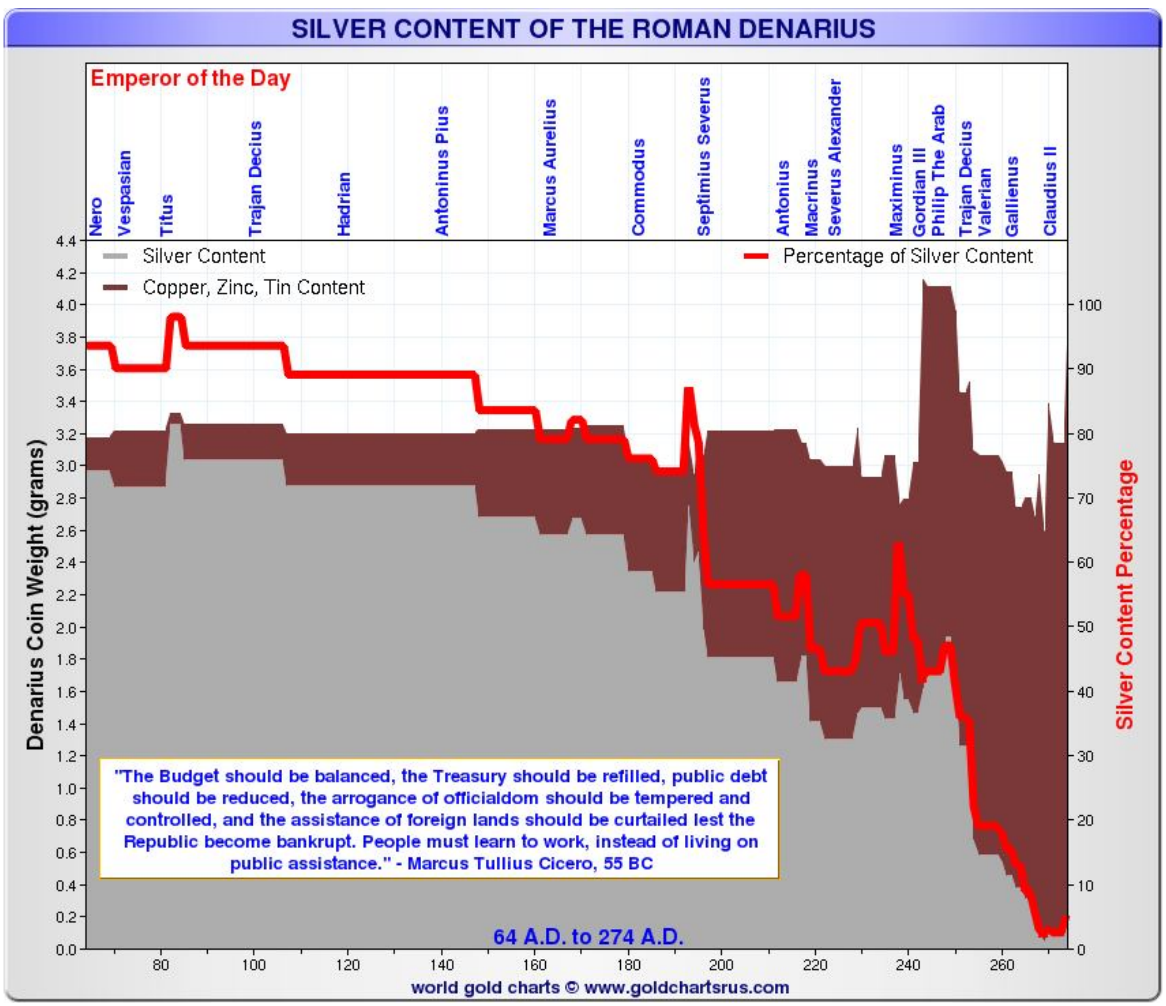
THE ROMAN DENARIUS AND THE US DOLLAR: BIRDS OF A FEATHER?



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Roughly 210 Years

Source: www.sharelynx.com

Note: on the chart above, the listing of Trajan Decius between the emperors Titus (79-81 AD) and Hadrian (117-138 AD) looks to be a mistake. That period saw the reign of Trajan (98-117 AD). Trajan Decius (249-251 AD) followed Phillip the Arab (244-249 AD). He is correctly listed in order.

I found the chart showing the decline of the silver content of the Roman denarius quite fascinating. It reminded me of the chart of the loss of US$ purchasing power since 1774. I will show that chart again later. First, the denarius.

The Roman denarius was the reserve currency of the Roman Empire. It came into use around 212 BC and was a kind of successor to the Greek drachma, which was the reserve currency during the period of the Greek empire. The denarius was set at a price of 10 bronze asses (no jokes, please). Two-and-a-half asses were equivalent to a sestertius; 25 denarii equalled a gold aureus.

Initially, the denarius contained roughly 90% silver. In terms of measurement, it contained 4.5 grams of silver. It formed the backbone of the Roman Republic.

Its debasement began near the end of the Republican period and the start of the period known as the Roman Empire. Under the emperor Augustus (27 BC – 14 AD) the silver content fell to 3.9 grams. Under Nero (54-68 AD) it was reduced again, to 3.4 grams. It continued to be lowered under later emperors but it was towards the end of the third century AD that a more serious debasement got under way. Under the emperor Commodus (177-192 AD), the silver content fell to 70%, and then following a brief period of civil war, the emperor Septimus Severus (193-211) lowered the silver content to 45%.

Foreign wars, a vast empire to police and finance, a restless population where there were soon more on the dole than there were working gave rise to a series of monetary crises. The debasement of the denarius continued with the introduction of the antoninianus in 215 AD under the emperor Caracalla (198-217). The antoninianus initially was made of silver and was set at two denarii. The antoninianus was then debased and eventually was made of just bronze, although sometimes washed with silver.

The introduction of the antoninianus unleashed inflation. This, coupled with depletion of the Roman silver mines, meant silver became scarce and coins in circulation were primarily bronze. Even the bronze coins were debased with the use of tin or zinc.

But the emperors still had to pay their armies to buy loyalty. This led to further debasement of the currency. Emperors came and went, and while there were attempts to increase the weight of the antoninianus under Aurelian (270-275 AD), the debasement continued. The silver purity of the antoninianus, which was around 40% in 240, was down to 5% by 270. Old sestertius and asses were melted down to make new antoninianus.

Diocletian (284-305 AD) attempted to reform the monetary system before abdicating. He re-established the gold aureus and brought back the denarius, now called the argentus. The common coin was bronze and known as the follis. The antoninianus continued to be produced although it was now made of bronze; five antoninianus were equal to one follis.

However, the new system was largely unsuccessful as again a lack of silver soon had them debasing even the argentus. By 310 AD, the argentus silver content was only 50% of what it had been initially, and the antoninianus eventually disappeared as the bronze weight of the follis was reduced. There were further attempts to reform the monetary system but the end result was the same. By the fifth century, the bronze follis fell into disrepute and the long period of the Roman Empire ended. If there was one thing that did hold its value it was the gold aureus, but it too was replaced by the gold solidus under Constantine I 'the Great' (310-337 AD) and his son Constantine II (337-340 AD).

The collapse of the Empire was economic, and at the heart of it was debasement of the currency. One cannot but be struck by the words of Marcus Tullius Cicero in 55 BC (the quote in the denarius chart above), long before the actual collapse of the Roman Empire. One can only guess that the rot was visible even as the Roman Republic was ending.

Yet his words could echo today. Start with "the budget should be balanced". The US has been running a budget deficit almost continually since 1961. There have been only five years since then where the budget was in surplus – in 1969, under Richard Nixon, and 1998-2001 under Bill Clinton. Annual deficits grew under Johnson (1963-68), Nixon (1968-74) and Carter (1976-80) but exploded under Reagan (1980-88) and Bush 1 (1988-92). There were some surpluses under Clinton (1992-2000) and then the deficits exploded again under Bush II (2000-08). Obama came to power as the financial panic of 2008 unfolded and was handed the bail-outs of Bush II. That exploded the annual budget deficits once again, although they have since come down somewhat.

The public debt of the US has shot up to $17 trillion and continues to rise. The US debt has grown from under $11 trillion at the time of the 2008 financial crash. Cicero's remark about "assistance of foreign lands" is interesting. The US spends roughly $50 billion annually in foreign aid. According to www.foreignassistance.gov , the top recipient for 2014 will be Afghanistan, which will receive $3.5 billion. Rounding out the top five are Israel at $2.9 billion, Iraq $2.3 billion, Pakistan $1.9 billion and Egypt $1.7 billion. To put this in some perspective, bankrupt Detroit is to receive $300 million in Federal assistance and according to reports will not be bailed out. The foreign aid for the most part has been in place for years and is given annually. In the past Israel has been the largest recipient.

Possibly the most interesting comment is that "people must learn to work, instead of living on public assistance." Some interesting facts:

1. **More people in the US receive some form of federal assistance than work full-time.** Those receiving assistance include food stamps, Medicaid, supplementary security income (could be age related), women and children's programs, subsidized housing and temporary assistance programs.

2. 1.2 million US students are homeless.

3. One out of every six Americans lives in poverty.

4. The gap between the rich and the poor is at an all-time high. The Gini coefficient, a measurement of wealth disparity, was last reported (2011) at 47.7 for the US (where 100 is absolute inequality

and 0 is absolute equality). It was 38.6 in 1968. Canada's last reported Gini coefficient was 32.6 (but is probably higher now).

5. The working poor and those living on or close to minimum wage is the fastest growing segment of the US population.

6. According to an article in *Business Week*, a study discovered that 300 employees at a Wal-Mart had collected over $1 million in public assistance. http://www.businessweek.com/articles/2013-10-23/more-than-half-of-walmarts-hourly-workers-make-less-than-25-000#r=rss . Another story I read told about a Wal-Mart worker seeking what seemed to be a pay raise, to be told that she was eligible for public assistance and should apply.

7. Even as the incomes of the wealthy grow, the median household income continues to fall steadily since 2000.

8. One in every four US workers has a job that pays $10 an hour or less.

9. One out of five US households is on food stamps.

10. One out of four children in the US is on food stamps. According to statistics, 45% of Miami children live in poverty; so do 50% of Cleveland children and 60% of Detroit children.

11. It has been reported that four out of five adults in the US "struggle with joblessness, near poverty or reliance on welfare for at least a part of their lives". http://www.usatoday.com/story/money/business/2013/07/28/americans-poverty-no-work/2594203/

12. It has been reported that roughly 57% of children in the US live in a home that is considered low income or impoverished.

If you have a professional job and/or both spouses working, you probably live a good way of life. But the US is headed in the opposite direction as homelessness and poverty grow and the middle class declines. It is similar in Canada although not yet as stark. Many point to what appears to be a booming stock market and rising housing prices as evidence that all is well. The problem is that stock and housing prices are rising not because of sound economic fundamentals but because of excess liquidity in the financial system, due to abnormally low interest rates (giving rise to easy credit) and QE.

If the rise in the value of the stock market and housing prices were based on strong fundamentals, the money multiplier and money velocity would be growing, not falling to record lows. What is taking place is not much different from the housing bubble that occurred up until 2007 that led inevitably to the collapse of 2008. The same thing happened in the 1990s and led to the high-tech/internet collapse of 2000-02. One can go back even further to the "Roaring Twenties" which was another period of speculation fed by easy credit. That led directly to the Great Depression.

This current period of easy money combined with QE will most likely end the same way, with a huge financial collapse. Money has no value. Since the creation of the Federal Reserve in 1913 the US$ has lost over 90% of its purchasing power.

When the US was formed, they tried to finance their revolution with a currency known as Continental Dollars. They printed so many that inevitably the Continental collapsed and a depression followed. The Coinage Act of 1792 defined the US$ as being 371¼ grains of pure silver. Yes, the US started on a silver standard. The Act also set the gold/silver ratio at 15. If that ratio were in place today, silver would be $90 an ounce and not $23. The US basing its money system on silver and defining the gold/silver ratio was no different from the Romans setting the value of the denarius in relation to the gold aureus.

It was probably inevitable that there arose a desire to mess with the system. The system was constraining as both gold and silver are scarce. In the late nineteenth century a huge influx of silver set off a period of inflation. The US switched to a gold standard. The US$ was redefined as 23.22 grams of gold and the price was set at $20.67 an ounce. The depressions of the late nineteenth century and some banking panics in the early years of the twentieth (1903 and 1907) led to the creation of the Federal Reserve in 1913. One of the things the Fed wanted to do was gain control over gold. Once that was established, they were in a position to expand credit in a manner that would benefit their shareholders – the large money center banks.

The crash of 1929 and the Great Depression changed the gold standard once again. The crash sparked a rush from US$ into gold. There was soon a shortage of gold. The US$ was being debased against it. The result was the 69% devaluation of the US$ in 1933, as the US$ was redefined once again as equal to 13.71 grams of gold and the price jumped from $20.67 to $35. The government confiscated gold at the old price. That was intended to shore up the US$. The world tried to create a sound money system with the Bretton Woods Agreement of 1944. Bretton Woods set the US$ as the world's reserve currency and it was convertible into gold at $35. It was not quite a gold standard but at least it was backed by gold.

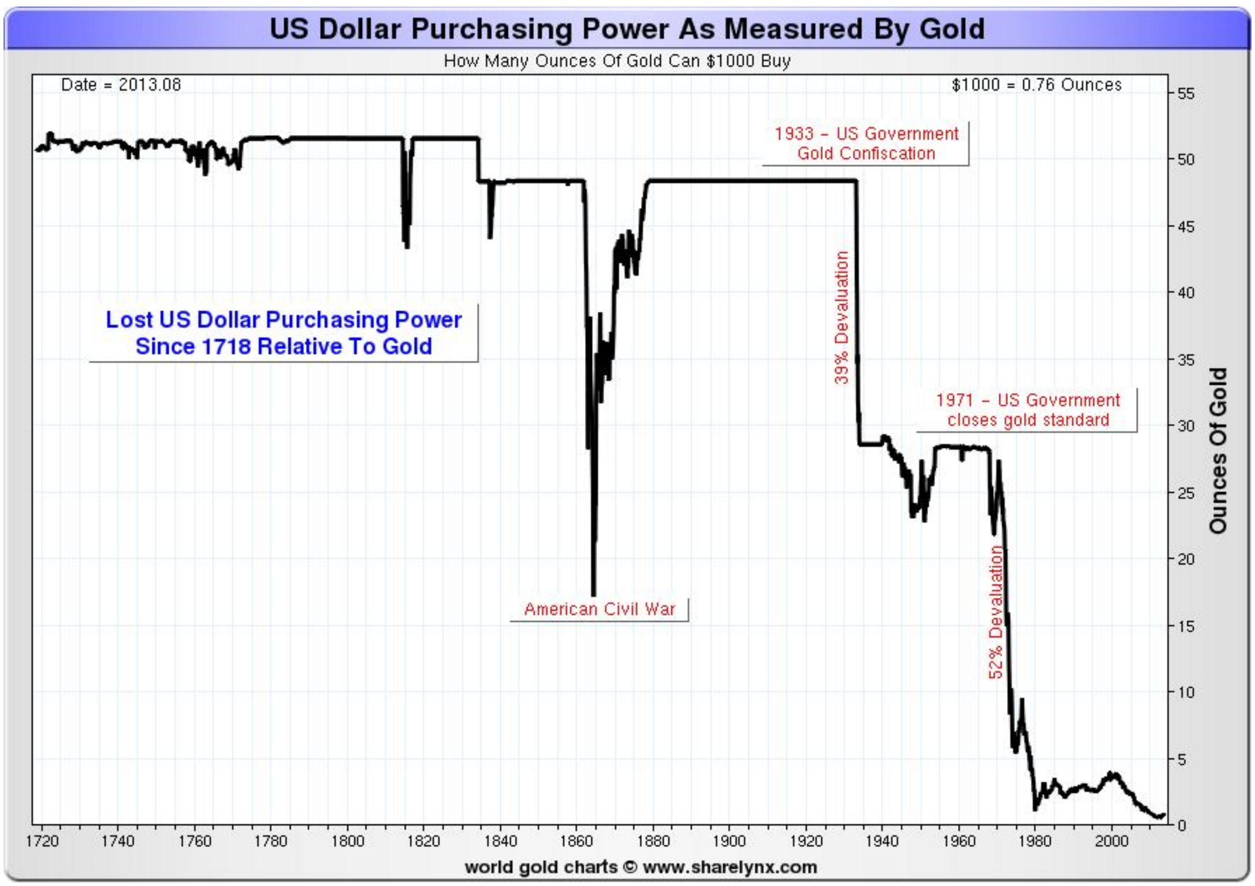
The costs of the Vietnam War and the expansion of the social system in the 1960s sparked inflation and a devaluation of the US$. By August 1971, any pretence of a gold standard was gone and the world embarked on the current period of fiat currencies. Note: Some of the preceding was articulated in a great article entitled "Sound Money". It can be found at http://www.24hgold.com/english/news-gold-silver-sound-money.aspx?article=486639784F83508redirect=false&contributor=Doug+Hornig&mk=1

Since 1971, money, credit and debt have exploded. The Western economies (US, Canada and the Eurozone, plus Japan) are buried in debt and economic stagnation. There is probably no way out of it. What the monetary authorities are trying to do is delay the inevitable financial collapse and depression. Naturally, they do not believe it is inevitable, and so far their efforts have been somewhat successful.

The creation of stock market and housing bubbles, however, as history has shown, end badly. Marcus Cicero was right: one cannot have more people collecting welfare than are working. Society most likely will fray badly if the current decline into poverty continues. The Fed buying up the bonds through QE is an experiment that has never been tried before. Everyone believes that the Fed could eventually end the QE program (the "taper") but the reality is they cannot as some believe that the QE program is not primarily to aid the economy but to help bail out the banks that continue to hold potentially $billions of bad debt. After five years of QE1, QE2, Operation Twist and now QE3, the economy is actually slowing again, not growing. Who will buy the Fed's $3.7 trillion (and growing by $1 trillion a year) of bonds? As a popular advertisement says, "NOBODY".

Like the Roman Empire, the long slide is entrenched. The question is how long it will last, and at what point will the US$ be used instead as firewood or toilet paper. The Roman Empire took 200 years to collapse after the long decline began to accelerate late in the third century. The fourth and fifth centuries, however, were a period defined by wars, civil wars, confiscation and even nationalization. The signs are there that the current direction is the same.

Below is the chart of the US$ purchasing power relative to gold. Yes, it is a repeat, but it is a chart worth repeating. Compare it to the collapse of the denarius. History may not repeat but it can rhyme.



Source: www.sharelynx.com

Roughly 295 Years

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