The Root of United States Public and Private Debt Told by the Pen of History

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Smashwords Edition

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About Bob

Bob received his Masters degree in sociology from Harvard in 1964 and Ph.D. from the University of Massachusetts in 1967. He advanced from Instructor to Assistant Professor teaching sociology at The Ohio State University, then from Associate Professor to Full Professor teaching sociology at Southern Illinois University Edwardsville, retiring (new tires) from there in 2001. His research has been published and presented in national and international journals and conferences, including Poland,
New Zealand, Australia, India, Libya and Togo in Africa. Here is what he says about what you will read here.

“Our money is not our money. We rent it. We have been renting it since 1781 when the Bank of North America gained control of the money supply in the closing days of the Revolutionary War.

“We need to own our money as citizens responsible for both the government and the economy of the United States.”

Overview

The “pen of history” tells us that the debt burden of the entire economy of the United States, that is, total public and private debt, grew at an average annual rate of just under eight percent (7.9%) from 1781 to 2015. The cause of this exponential growth in debt has been that our money originates as debt. It is now time for Congress to put new money into circulation that is based on citizenship, not debt.

The Growth of Debt from 1781 to 2015

The only data we have on total public and private debt is for the years 1916 to 1976. Reaching the conclusion that this growth was part of a pattern rooted in 1781 was a process that started for your author in 1975. That process had three distinct phases. The first phase was compiling the known data and being alarmed by the consistency of the growth trajectory from 1916 to 1976 that would take debt from $3,800 billion in 1976 to tens of trillions of dollars by 2000. The second phase was tracing the debt growth pattern backwards to the First Congress in 1790 (Blain 1987). The third phase was adding debt data for 1977 to 2015, then tracing the root of the debt growth pattern back to the chartering of the Bank of North America in 1781.

Total public and private debt is the sum of federal, state and local government debt, corporate, farm, home mortgage, and consumer, commercial, and financial debt. The black line in Figure 1 is actual total public and private debt from 1916 to 2015. The perfectly straight red line is $2.536 million, reported by Superintendent of Finance Robert Morris (1734-1806), to be the “floating debt” in 1781, increased at the annual rate of 7.9 percent to 2015.
Sources: Debt in 1781: Sumner, 1968b, Vol. 2: 129; U.S. Public and Private Debt, 1916-1976: Survey of Current Business; Outstanding Credit Market Debt from 1945 to 2015: Federal Reserve Flow of Funds Releases Z1. Total debt and credit market debt correlated $r = .99965$ from 1945 to 1976 when both series were published, with total debt consistently 32 percent more than outstanding credit market debt. So total debt from 1977 to 2015 is estimated as 32 percent more than credit market debt.

The formula used to project debt from 1781 was:

$$\text{Debt}_{\text{Year}} = \$2.536 \text{ million} \times (1.079)^{\text{(Year} - 1781)}$$

Actual debt and debt projected by that formula for 1916 to 2015 correlate a remarkable $r = .986$ of a possible 1.00. Look at three examples in Table 1: only a $\$5/\$186$ billion difference in 1928 and a $\$2/\$15$ trillion difference in 1986. The disparity for 2007, $\$7/\$74$ trillion, is what we know today as the debt “seizure” and beginning of the Great Recession, one of only two periods when total public and private debt stopped growing.

<table>
<thead>
<tr>
<th>Year</th>
<th>Actual Debt</th>
<th>From 1781</th>
</tr>
</thead>
<tbody>
<tr>
<td>1928</td>
<td>$186$ billion</td>
<td>$181$ billion</td>
</tr>
<tr>
<td>1986</td>
<td>$13$ trillion</td>
<td>$15$ trillion</td>
</tr>
<tr>
<td>2007</td>
<td>$67$ trillion</td>
<td>$74$ trillion</td>
</tr>
</tbody>
</table>

The other major exception to this remarkably consistent growth in debt is the Great
Depression years of the 1930s when debt also stopped growing. The pamphlet, *The Two Faces of Debt*, published by the Federal Reserve Bank of Chicago notes the correlation of debt increase with prosperous times and debt reduction with economic slowdowns, but without explaining it.

"Growth and prosperity have flourished at times when overall indebtedness was rising rapidly, and some economic slowdowns have coincided with periods of debt reduction" (page 1 of fifth edition 1992).

It notes that debt can be a good thing as well as a bad thing, but stops short of recognizing that the money supply itself is debt.

It took hundreds of billions of dollars of more debt financing World War II to bring recovery from the Great Depression. Since 2007, another $16 trillion has been added to total debt, but it has not been enough to return debt growth in 2015 to its historical trajectory and full economic recovery. That would require tens of trillions of dollars of more debt now and ever more trillions thereafter, increases too large to continue. Could the "usual suspects" explain this growth in debt?

**Population, Inflation, GDP and Federal Spending**

From 1916 to 2015, population tripled (Table 2).

**Table 2. Multiples of Population, Inflation, GDP and Debt 1916 to 2015**

<table>
<thead>
<tr>
<th></th>
<th>1916</th>
<th>2015</th>
<th>2015/1916</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>100 mil.</td>
<td>320 mil.</td>
<td>3.2</td>
</tr>
<tr>
<td>Inflation</td>
<td>$1</td>
<td>$21.74</td>
<td>21.7</td>
</tr>
<tr>
<td>GDP (1929)</td>
<td>104.6</td>
<td>18036.6</td>
<td>172.4</td>
</tr>
<tr>
<td>Debt</td>
<td>$82 bil.</td>
<td>$83,000 bil.</td>
<td>1,012.2</td>
</tr>
</tbody>
</table>


Prices rose 22 times higher and Gross Domestic Product in current dollars grew 173 times larger; debt rose 1,012 times higher. There should be no doubt that debt growth is the leading force. The ratio of debt to GDP confirms this assessment.

Economists tell us that the *ratio* of debt to GDP is the critical datum. In 1933 of the Great Depression, total debt was almost 3.5 times larger than GDP (Figure 2).
That ratio declined until 1950, then rose to five times GDP by 2007, even with a GDP that year of $14 trillion. In 2015, GDP was $18 trillion. If that growth in GDP reduced the debt ratio only to 4.5 times GDP, we should not expect GDP growth to get us out of debt. With global warming a growing concern, neither should we be trying to increase GDP. We should be reducing it.

We can reduce GDP while simultaneously growing the real economy and increasing its quality. For example, when we add a new house to our housing inventory in one year, it adds to our actual housing wealth. When we add another house in the following year, we have grown the real physical wealth of the nation even though the GDP would show no growth at all from that new house. The new house would just be taking the place in the compilation of GDP of the house that added to GDP the year before. We could add a new house every year and the physical housing wealth of the nation would be increasing – but GDP would be unchanged from one year to the next. That $18 trillion dollar GDP in 2015 added a whole lot to the wealth of the nation – although a lot of it was waste because we are focused on the size of the GDP number instead of the actual, real, physical, emotional, and educational wealth of the nation.

Federal spending, with its associated deficits, so often criticized as wasteful – with good reason - may have been necessary to keep total debt growing (Figure 3).
When federal debt failed to keep pace with the 1781 debt trajectory or went down, panics, depressions, and recessions followed, for example, in 1837, 1857, 1907, 1932 and 1960. President Andrew Jackson paid federal debt down to zero in 1835 (World Book Encyclopedia, Vol. 11: 14). Then came the Panic of 1837. James Sloan Gibbons, writing in 1867, described the panic:

In 1837 the stagnation was seen everywhere. Currency filled every bank vault, and it could not be used (Gibbons, 1970:159).

He attributed the panic to the extraordinary dependence of the money supply on public debt.

The connection between the public credit of the United States and the private credit of individuals has been made so intimate as to establish an extraordinary mutual dependence between them. The public bonds constitute the only legal basis of the banking system. The ‘National Bank Currency’ rests on them alone (Gibbons, 1970:95-96).

Gibbons in 1867 recognized what Modern Monetary Theory (MMT) is pointing out today; namely, that federal deficits increase the money supply (Wray 2012). It is counter-intuitive because we assume that money is “cash” rather than debt.

The pen of history you see in Figure 3 shows that wars followed periods when federal debt failed to grow in tandem with the debt trajectory: the War of 1812, the Civil War, World War I, World War II, and the Vietnam War. Notice how the federal deficits during the Civil War brought federal debt up to the debt projected from 1781. Could the Civil War have been caused by money shortages in the 1850s? There were monetary problems in the antebellum south (Niemi, 1975:191 ff). The proximity of these wars to large federal deficits suggests that the wars caused the deficits. The historical debt
trajectory from 1781 suggests the opposite, that these wars were necessary to keep
debt growing on its exponential trajectory. The War on Terrorism makes sense from this
perspective because, without a fixed target, it portends permanent war and unending
growth in debt.

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Why Money Was Based on Debt

In 1780, the War of Independence seemed all but lost. From May 1775 until 1780,
the Continental Congress had issued paper money to finance the war (Sumner, 1968a:
43-49). States also issued their own paper money. This paper money, with British
counterfeits adding to it, led to depreciation until the expression "not worth a
continental" became idiomatic. Sumner wrote:

In December [of 1780] Stephen de Lancey, the tory, published an appeal to
the americans, in which he argued that the Revolution was foolish and was a
failure. All his points were drawn from depreciation and the abuse of paper
money (Sumner, 1968b, V. I: 93-94).

It was under these desperate conditions that the Continental Congress turned to
Robert Morris (1734-1806), a Philadelphia merchant-banker, to rescue them as
Superintendent of Finance, with Gouverneur Morris (1752-1816) as Assistant
Superintendent of Finance (Sparks, 1832).

They spearheaded the formation of the Bank of North America, the first central bank
in the country, to provide a new source of money for continuing the war. Its operation
would be the model of money creation from that time to our own. In letters to Benjamin
Franklin, John Jay, and Robert Smith, Robert Morris wrote:

I mean to render this [the Bank of North America] a principal pillar of
American credit, so as to obtain the money of individuals for the benefit of the
Union, and thereby bind those individuals more strongly to the general cause by the ties of private interest (Sumner, 1968b, Vol. 2:27).

Owners of shares of stock would support the new government because they would receive dividend income from the bank.

In his letter, Morris blamed depreciation of the currency on it being paper money. Nonetheless, subscribers would purchase bank stock with paper debt certificates and the Bank of North America would issue its loans as paper bank notes. By charging interest on those loans, the bank would be able to pay dividends to its shareholders, binding them to the general cause "by the ties of private interest," as quoted above.

The Bank of North America (today part of Wells Fargo) began business in January 1782. Alexander Hamilton followed Robert and Gouverneur Morris's example by founding the Bank of New York in 1784 (now BNY-Mellon). The Massachusetts Bank (now part of Bank of America) was founded in Boston in 1784. Its charter was signed by John Hancock and major stockholders included Paul Revere, Samuel Adams and Henry Knox.

Robert Morris, Gouverneur Morris, and Alexander Hamilton then organized the Federal Convention that replaced the Articles of Confederation with the Constitution. Gouverneur Morris made 173 speeches in that convention, more than any other delegate, and made the critical motion on August 16, 1787 to deny Congress the power to originate paper money by deleting the words "and emit bills" from the powers of Congress (Hunt & Scott, 1970:413-414). The power to borrow was passed without opposition. Limiting Congress to coin, when no gold mines existed in the country at that time, required Congress to go into debt.

Alexander Hamilton Proposes Debt As Money

The business of the first Congress under the new Constitution on September 21, 1789 was to ask Alexander Hamilton, the first Secretary of the Treasury, to develop a plan for the "support of public credit." Note that he was asked to develop a plan to support public credit, not to pay the debt. Note also that it was called “credit” not “debt.” It might have received a very different reception had it been called “to support public debt.”

The plan he issued in his First Report on the Public Credit on January 9, 1790 called for Congress to pay interest on that debt. It may be what “A Farmer” in his letter to the editor of the Pennsylvania Gazette on January 27, 1790 to be quoted below meant by a proposal “coloured over with fine words.” Hamilton wrote:

To justify and preserve their [creditors] confidence; to promote the increasing respectability of the American name; to answer the calls of justice; to restore landed property to its due value; to furnish new resources, both to agriculture and commerce; to cement more closely the union of the States; to add to their security against foreign attack; to establish public order on the basis of an upright and liberal policy;—these are the great and invaluable ends to be secured by a proper and adequate provision, at the present period, for the support of public credit.

To this provision we are invited, not only by the general considerations which have been noticed, but by others of a more particular nature. It will procure, to
every class of the community, some important advantages, and remove some no less important disadvantages.

The advantage to the public creditors, from the increased value of that part of their property which constitutes the public debt, needs no explanation.

But there is a consequence of this, less obvious, though not less true, in which every other citizen is interested. It is a well-known fact, that, in countries in which the national debt is properly funded, and an object of established confidence, it answers most of the purposes of money. Transfers of stock or public debt are there equivalent to payments in specie; or, in other words, stock, in the principal transactions of business, passes current as specie. The same thing would, in all probability, happen here under the like circumstances. The benefits of this are various and obvious (https://www.schillerinstitute.org/economy/2015/hamilton-first_report_on_the_public_credit.pdf).

He was proposing that certificates of debt be the money. Debt would circulate just like transfers of stock. He advised Congress to assume all state and federal war debts and to require taxes to pay interest on that debt. Thus, a $75 million debt would become a $75 million money supply. Hamilton’s funding plan passed into law on August 4, 1790.

No funds were actually provided, only debt to serve as funds and an obligation to collect taxes to pay interest to keep that debt in circulation. Where would citizens who were not public creditors get money to pay those taxes and to make purchases in the economy was a question Hamilton did not answer. He was clear about wanting to secure the support of public creditors.

On September 1, 1790, Hamilton’s “Address to the Public Creditors” was published in the New York Gazette shown authored “By a Friend.” Creditors were advised to not sell their securities because Congress had made:

permanent provision [to pay them interest] … which cannot be undone or altered, without the concurrence of three different branches of the government —the house of Representatives, the Senate and the President of the United States. … Whoever considers the nature of our government, with discernment, will see, that tho obstacles and delays will frequently stand in the way of the adoption of good measures, yet when once adopted, they are likely to be stable and permanent: It will be far more difficult to undo than to do (http://founders.archives.gov/documents/Hamilton/01-07-02-0001).

Hamilton had secured permanent payment of interest to the public creditors. We have inherited the consequence; exponential growth in debt, not just federal debt, but debt throughout the economy throughout our history.

On December 14, 1790, Hamilton submitted his Second Report on Public Credit advising Congress to charter the first Bank of the United States, modeled after the Bank of England and the Bank of North America, owned by private stockholders to issue bank notes as loans. It passed into law on February 2, 1791.

The Funding Act had the federal government assume all state and federal war debts
and required it to collect taxes to pay interest on that debt. The Bank Act established the Bank of the United States, just like the Bank of North America, as a private bank to originate money as debt (Benton, 1968:449 and http://www.publicdebt.treas.gov/history/1700.htm).

James Jackson Opposes Debt As Money

Opposition to debt as money has existed throughout United States history. In 1790, opposition to Hamilton’s plan was intense. James Callender, a reporter for the *Pennsylvania Gazette*, charged;

The funding law was passed through Congress by the influence of a majority, who purchased certificates from the army at under value; and who voted for the law, with the single view of enriching themselves. It is firmly believed and loudly asserted, by at least one half of the citizens of America, that the funding system was devised, not for the sake of paying the real creditors but of wrongdoing them. Hamilton planned, Congress voted. The president approved (Taylor, 1950: 61-64).

A letter to the *Pennsylvania Gazette* on January 27, 1790 by "A Farmer" predicted:

Such injustice and oppression may be coloured over with fine words, but there is a time coming when the pen of history will detect and expose the folly of the arguments in favor of the proposed system, as well as the iniquity (Taylor, 1950: 53).

The word was "iniquity," not "inequity." The writer thought the system was not just unfair; it was evil. You saw the pen of history in Figure 1 above showing that folly in having produced exponential debt growth, with booms and busts every three or four years (about 50 of them), throughout United States history.

James Jackson, who was a farmer, maybe the author of the letter, maybe not, the first Congressman from Georgia, on January 28, 1790 in the First Congress, complained that speculators, privy to what Congress was doing, had sent agents to buy up debt certificates from holders who thought they were worthless.

Mr. Jackson. The report of the Secretary of the Treasury, Mr. Speaker, embraces subjects of the utmost magnitude, which ought not to be lightly taken up, or hastily concluded upon. It appears to me to contain two important objects, worthy of our most serious and indefatigable disquisition. The first is, that all idea of discrimination among the public creditors, as original holders and transferees, ought to be done away; and on this head, I must own to you, sir, that I formerly coincided in something like the same opinion, but circumstances have occurred, to make me almost a convert to the other. Since this report has been read in this House, a spirit of havoc, speculation, and ruin, has arisen, and been cherished by people who had an access to the information the report contained, that would have made a Hastings blush to have been connected with, though long inured to preying on the vitals of his fellow men. Three vessels, sir, have sailed within a fortnight from this port, freighted for speculation; they are intended to purchase up the State and other securities in the hands of the uninformed, though honest citizens of North Carolina, South
Carolina, and Georgia. My soul rises indignant at the avaricious and immoral
turpitude which so vile a conduct displays (Gales & Seaton's History Of Debates
In Congress; 1131-1132).

Then on February 9, 1790, Jackson urged the First Congress to reject Hamilton's
funding plan. After reciting the history of Florence, Venice, Genoa, France, Spain and
England with similar funding plans, he warned:

I contend that a funding system in this country will be highly dangerous to the
welfare of the Republic; it may, for a moment, raise our credit, and increase our
circulation by multiplying a new species of currency; but it must hereafter settle
upon our posterity a burthen which they can neither bear nor relieve themselves
from. It will establish a precedent in America that may, and in all probability will,
be pursued by the Sovereign authority, until it brings upon us that ruin which it
has never failed to bring, or is inevitably bringing, upon all the nations of the
earth who have had the temerity to make the experiment. Let us take warning
by the errors of Europe, and guard against the introduction of a system followed
by calamities so universal. Though our present debt be but a few millions, in the
course of a single century it may be multiplied to an extent we dare not think of
(Gales & Seaton: 1131-1132).

Debt grew as he warned it would. In two centuries, it has grown from $2.5 million to $83 trillion, more than 33 million times larger. Such is the power of compound interest.

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Two Problems With Debt As Money

There are two problems with a money supply based on debt. First, when people
make payments on their debt, it reduces the money supply. If all debts could be paid,
there would be no money left in circulation. Gibbons quoted above described that
condition in 1837. “Currency filled every bank vault” but no one was borrowing it back
out. Second, interest must be paid with principal. If X amount of money is issued as a
loan, X plus interest is owed. Some debtors can succeed in paying both principal and
interest only by using the principal of other debtors, forcing other debtors to go bankrupt
or further into debt.

The only way that bankruptcy or more debt could be avoided is if creditors spent the
dividends and interest they receive back into circulation by purchasing goods and
services. Then debtors would be able to repay both interest and principal with the
money returned to circulation. Economists call it money “velocity.” However, only the
velocity of creditors spending money returns to circulation the money debtors need to
pay interest, not velocity among debtors. If one debtor pays principal and interest to
creditors, it leaves too little money for all other debtors to do the same. Robert Morris
described the creditor to debtor velocity in 1786. Here is how that happened.

In 1785, the Pennsylvania Assembly, which had chartered the Bank of North
America along with the Continental Congress, withdrew that charter. In 1786, directors
of the bank appealed to the Assembly to restore the bank’s charter. Robert Morris, as a
member of the Pennsylvania Assembly defending the Bank of North America, tried to
counter the argument of opponents of the bank that profits of the bank would
compound, as one opponent put it, “like a snowball perpetually rolled” (Carey 1786).
Robert Morris countered:

Every six months a dividend is made of the profits of the bank: and if we reflect who are the stockholders, we shall find it most probable that the dividends are devoted to their current expenses, for the support of themselves and families, and by that means circulated again amongst the community (Carey, 1786:52).

The growth of debt shown in Figure 1 means that Morris was wrong in assuring his opponents that dividends would not compound. It shows that creditors have chosen to let them compound rather than spend them. Put another way, the force driving exponential debt growth is creditors letting their claims to wealth compound. You see the same logic when people are encouraged to save by the promise of compounding interest, which they expect will increase their savings exponentially. However, such compounding of claims requires debts to compound as well. *The Two Faces of Debt* published by the Federal Reserve Bank of Chicago explains:

While debt is a claim on the assets and earnings of those in debt, it is simultaneously a part of the wealth, or assets, of their creditors. Just as for every buyer there must be a seller, so for every debt incurred by any person or institution, someone acquires a financial asset of equal amount (p. 6).

Investment counselors advise their clients that compounding interest will increase their retirement income. They, too, may not realize that it requires the debts of others to compound as well.

**Karl Marx on Capitalism**

Few people in the United States know much about Karl Marx (1818-1883) and his critique of capitalism because, although he wrote very little about it, his name is associated with communism. As a professor of sociology teaching classical theory, which included Thomas Hobbes and Adam Smith, I needed to know what Karl Marx had written about capitalism. It can be presented in very few words and helps to explain why money came to be based on debt.

Marx (1867) began his critique of capitalism with barter. With barter, people apply their labor and skills to materials of nature to produce commodities. Then they trade one commodity directly for another commodity, which Marx expressed as:

\[ C - C. \]

Barter is limited by four conditions: 1) There must be a "coincidence of surpluses and wants;" each person must want what the other person has a surplus to trade, 2) Commodities must to be ready at the same time, 3) Be brought to the same place, and 4) Be of equivalent value. Money overcame these limits.

With money, one person can sell their commodity for money to someone without a commodity the seller wants, then use the money to buy the commodity they want at a different time, in a different place, at a different price:

\[ C - M - C. \]

Here, the money is simply a medium of exchange, facilitating trade. However, once money exists, some people use money to accumulate more money. They buy a commodity with money, then sell it for more money than they paid:

\[ M - C - M'. \]
Then they use $M'$ (M-prime) to make $M''$ (M double-prime):

$$M' - C - M''.$$

Then they use $M''$ to make $M'''$, and so forth.

Capitalist banking simplifies the process by eliminating commodities. The capitalist banker lends money at interest, to turn $M$ directly into $M'$ when the loan ($M$) plus interest ($M'$) is repaid:

$$M - M'.$$

The capitalist banker continues the money accumulation process, using $M'$ to make more loans to turn it into $M''$, then $M''$ into $M'''$, and so forth (Marx, 1967:146-155).

Marx saw this capitalist process as self-destructive. It leaves behind people with too little or no money to buy commodities. The more $M - C - M'$ exchanges, the more money in the hands of capitalists and the less money in the hands of buyers. Capitalism suffers periodic crises caused by what appears to be overproduction but which, for Marx, is the shortage of money that unequal exchange leaves in its wake.

Because of the loss in purchasing power inherent in the unequal nature of capitalist exchange, capitalists sooner or later must move on to other markets for new buyers with money. Finally globally, when capitalists have all the money, the impoverished workers of the world unite, overthrow the capitalists and establish socialism to redistribute money with such “radical” measures as public schools and progressive income taxes (Marx and Engels, 1848).

But capitalism has not self-destructed. Why not? This was the question that first led me around 1975 to look at the total public and private debt series published by the United States Bureau of Economic Analysis. The answer to capitalism’s survival turned out to be that capitalists learned to continue unequal exchange using debt for money. Banking became:

$$D - D' - D'' - D'''$$ equivalent to: $$M - M' - M'' - M'''$$

Because money as debt is little more than a bank bookkeeping (now computer) entry, the future of capitalism seemed assured by the seeming mathematically unlimited compounding growth of debt. However, while there is no numerical limit to compounding interest, there is a limit to how far into debt people are willing to go.

An annual growth rate of 7.9 percent breaks down to less than one percent per month, hardly noticeable on a $2.5 million debt in 1781. But on $83 trillion in 2015, it is $6.6 trillion growth in debt for that year, $546 billion of more debt per month, $1,700 per person per month with more than that required for 2016. No wonder the astronomical size of federal, state, local, school, student, and credit card debt are on everyone’s mind these days.

Although total debt had reached $70 trillion by 2008, another $13 trillion by 2015 did not bring debt up to where its historical trajectory and a full recovery would require it to be (Figure 4).
Build a Money Supply Based on Citizenship

When a person registers to vote, they are given votes on the principle, one person, one vote. To build a money supply based on citizenship, when a person registers to vote, they would be given a citizen’s share of money as well. With that money, every purchase would be a vote, every job to earn back the money would be a vote, for what they want produced in the economy.

In his economics textbook, Paul Samuelson (1915-2009) used voting to defend setting prices by supply and demand:

Even if the system worked perfectly as described above -- which everyone knows not to be the case -- many would not consider it ideal. In the first place, goods go where there are the most votes or dollars. Rockefeller’s dog may receive the milk that a poor child needs to avoid rickets. Why? Because supply and demand are working badly? No. Because auction markets are doing what they are designed to do -- putting goods in the hands of those who can pay the most, who have the most money votes. Defenders and critics of the price mechanism should recognize this fact (Samuelson, 1973: 46-47).

Equal votes is the litmus test of political democracy. Samuelson says nothing about equal money votes. However, he planted the seed in my mind of thinking of money as votes.

A principle for money votes comparable to political votes would be an hour’s worth of dollars for an hour’s worth of work. We organize everything in an economy with clocks and calendars: wages by the hour, salaries by the month, taxes by the year, entry and exit from the labor force by age. We pay people by the hour, but the money does not acknowledge that simple and elementary fact. Why not? The lack of a standard wage per hour has allowed wages and incomes to diverge, a small percentage each year, compounding until the differences reached the astronomical differences that seem
normal today. Had we defined the value of dollars in terms of an hour of work time, these disparities would not have developed. Nor would people have come to expect their wages and incomes to increase year after year. We do not expect standards of weight and measure to change every year. Neither should we expect the value of money to change every year. We need to stabilize the value of dollars, then work to make wages and incomes fair. If everyone were paid a fair wage, money could cease to be a constant concern and worry.

Defining a standard dollars per hour of work would not end unequal pay per hour, but it would define wages and income the way we would all understand them objectively. For example, the federal minimum wage is $7.25 per hour. CEOs in 2015 were paid an average of $11 million, that’s $5,500 per hour, 760 times per hour more. By the end of the first day of work, the average CEO received $44,000, more than most workers receive for a year of work.

Suppose the standard for wages were $50 per hour. At $50 per hour 40 hours a week for 50 weeks, a person would earn $100,000 in a year. To earn $1 million would take 10 years of work. To earn $10 million would take 100 years of work. In 2015, the average income for CEOs of $11 million was equivalent to 110 years of income at $50 per hour. Without a standard for dollars per hour, who can say that $11 million per year is too much? Who can say that any wage or price is too much or too little? The lack of a standard for wages per hour means that none of us knows how much we should be paid or how much we should charge or be charged for the goods and services we receive. Supply and demand seem to be our only option. Children get rickets while dogs get milk. Billionaires have more money than they know what to do with, while working people live in poverty. Is that really the best we can do?

Benjamin Franklin on Money

Benjamin Franklin (1706-1790) knew better in 1729 when he published a pamphlet supporting government issue of money. From his autobiography:

About this time (1729) there was a cry among the people for more paper money. ... The wealthy inhabitants oppos'd any addition, being against paper currency....

The first small sums struck in 1723 had done much good by increasing trade, employment and numbers of inhabitants in the Province ....

I wrote a printed anonymous pamphlet on it, entitled 'The Nature and Necessity of a Paper Currency.' It was well received by the common people, but the rich disliked it.... [T]heir opposition slackened and the point was carried by a majority in the House [Pennsylvania Assembly].

The utility of this currency became, by time and experience, so evident as never afterwards to be disputed; ... though I now think there are limits beyond which the quantity may be hurtful (Bigelow, p.164).

Franklin believed that the primary cause of the War of Independence was the British Parliament prohibiting the colonies from emitting paper money, first, in New England by the Currency Act of 1751, then, in all the British colonies of North America in 1764.
Franklin went to London to protest. Here is the debate as published in the Report of the Board of Trade (British), February 9, 1764, by Olive Cushing Dwinell in *The Story of Our Money*. Meador Press, Boston, 1946: 31-36. British financiers were demanding that the emissions of colonial paper money be prohibited and Franklin in England was negotiating for the colonies. Franklin's reply follows each statement of the British negotiator.

**British Statement**

That paper money carries the gold and silver out of the Province, and so ruins the country....

**Franklin's Answer**

This opinion of its ruining the country, seems to be merely speculative, or not otherwise founded than upon misinformation in the matter of fact. The truth is, that the balance of their trade with Britain being greatly against them [colonies], the gold and silver is drawn out to pay that balance; and then the necessity of some medium of trade has induced the making of paper money, which could not be carried away. Thus, if carrying out all the gold and silver ruins the country, every colony was ruined before it made paper money. But far from being ruined by it, the colonies that have made use of paper money have been and still are in a thriving condition....

When in 1723 paper money was first made there [Pennsylvania], it gave new life to business, promoted greatly the settlement of new land .... New York and New Jersey have also increased greatly during the same period with use of paper money; so that it does not appear to be of the ruinous nature ASCRIBED TO IT.

**British Statement**

That every medium of trade should have an intrinsic value; which paper has not. Gold and silver are therefore the fittest for this medium, as they are equivalent, which paper can never be.

**Franklin's Answer**

However fit a particular thing may be for a particular purpose, whenever that thing is not to be had, or not to be in sufficient quantity, it becomes necessary to use something else, the fittest that can be got, in lieu of it. Gold and silver are not the produce of North America which has no mines; ... Bank bills and bankers' notes are daily used here [England] as a medium of trade, ... yet they have no intrinsic value...

Nor has any alteration been occasioned by paper money in the price of the necessities of life when compared to silver.

As a result in 1770, Parliament allowed New York to issue £120,000 in paper currency for public but not private debts. It extended this permission to all the colonies in 1773. That permission allowed paper money to be emitted for public debts, not private ones. Benjamin Franklin maintained that it was these restrictions on colonial issue of paper money that was the cause of the War of Independence.

Franklin considered work time as the proper standard of price. Writing in 1729 Franklin stated:

> By Labour may the Value of Silver be measured as well as other Things. As Suppose one man employed to raise Corn, while another is digging and refining Silver; at the Year's end., or at any other Period of Time, the compleat Produce of Corn, and that of Silver, are the natural Price of each other; and if one be twenty Bushels, and the other twenty Ounces, then an Ounce of that Silver is worth the Labour of raising a Bushel of that Corn. Now if by the Discovery of some nearer, more easy or plentiful Nines, a man may get Forty Ounces of Silver as easily as formerly he did Twenty, and the same Labour is still required to raise Twenty Bushels of Corn, then Two Ounces of Silver will be worth no more than the same Labour of raising One Bushel of Corn, and that Bushel of Corn will be as cheap as two Ounces, as it was before at one; caeteris paribus [other things being equal] (Franklin, 1959:149) From Leonard E. Labaree (Editor), 1959, The Papers of Benjamin Franklin. Yale University Press, New Haven.

The Equal Work Time Center of Currency Exchange Rates

Support for using work time to define the value of any nation’s money comes from data published by the International Monetary Fund (IMF). The purpose of the IMF stated at the time of its founding in July 1944 was to stabilize currency exchange rates. It never has, although the data it has published every month in its journal, International Financial Statistics, since its founding clearly shows equal work time to be the center of gravity of currency exchange rates (Blain, 1996, 2002). Here is one example (Figure 5).
Asian and African countries are above the center line of best fit representing equal work time while European and North American ones are below the line. That means Asian and African countries are paying more than equal work time for the currencies of European and North American countries. For example, in 2000 France paid 2 minutes of work for 14 minutes of the work of Algeria. These disparities, made invisible by the way exchange rates are listed (75 Dinars per USD for Algeria, 1.07 Euros per USD for France) are why the IMF has not adopted what the evidence shows is the correct par value of national currencies, Gross Domestic Product per hour of work.

A Standard Dollars Per Hour of Work

If a standard wage for the United States were defined by its GDP per hour of work in 2015, it would be $18 trillion divided by 316 billion hours of work, which equals $57 per hour. The average wage in 2015 was $24.57 per hour. Since there is a $20 bill and a $50 bill, defining dollars per hour could be done by adding to one or the other bill, not both, a statement such as “The amount of dollars on this bill is the official standard of a fair wage for an honest hour of work.”

There are advantages and disadvantages to either choice. For example, $20 per hour as the standard of a fair wage would mean that relatively small changes in wages would be implied, but would be far below an international wage standard of GDP per hour of work. The $50 per hour standard would imply large increases in domestic wages and would be compatible with an international wage standard of an hour’s worth of dollars for an hour’s worth of work. With either standard, the absurd income disparities we have today would be made clearly visible.

Benjamin Franklin in 1729 understood that money should be issued by government and prices should correspond with work time. President Abraham Lincoln also learned that the government should be the agency to issue a nation’s money. To finance the
Civil War, Congress issued United States Notes, which came to be known as “greenbacks” because the back was printed in green ink. Lincoln said of government issue of money:

    The government should create, issue and circulate all the currency and credit needed to satisfy the spending power of the government and the buying power of consumers..... The privilege of creating and issuing money is not only the supreme prerogative of Government, but it is the Government's greatest creative opportunity. By the adoption of these principles, the long-felt want for a uniform medium will be satisfied. The taxpayers will be saved immense sums of interest, discounts and exchanges. The financing of all public enterprises, the maintenance of stable government and ordered progress, and the conduct of the Treasury will become matters of practical administration. The people can and will be furnished with a currency as safe as their own government. Money will cease to be the master and become the servant of humanity. Democracy will rise superior to the money power (http://www.xat.org/xat/usury.html).

Compare his statement to Mayer Amschel Rothschild’s in 1790.

    Let me issue and control the money supply of a nation, and I care not who makes its laws.

In 1790, the United States Congress ceded the issue and control of money to merchant-bankers. Without that power, it is no wonder Congress is frustrated, and so are we.

Both Franklin and Lincoln favored government issue of money.

The United States is a Corporation

The Federal Convention that created the Constitution declared the United States to be a corporation on August 20, 1787.

    The United States shall be forever considered as one body corporate and politic in law, and entitled to all the rights, privileges, and immunities, which to bodies corporate do, or ought to, appertain (Elliot, 1836: 249-250).

The United States is a corporation, E Pluribus Unum, out of many, one. The Constitution is its charter. Ownership of a corporation is signified by shares of stock. For a nation, shares are the money supply. In Hamilton’s First Report on Public Credit, he argued that public debt certificates would circulate as a substitute for money the way corporate stock is used as a medium of exchange. Of course, he did not refer to the United States as a corporation because the purpose he served was to take control of money away from its citizens and keep it in the hands of the “moneyed interest.”

To build a money supply based on citizenship, when a person registers to vote they would be given both their vote and their share of money. A political democracy cannot function without people having votes to cast in elections. By the same logic, an economy cannot function without a money supply sufficient for people to carry out the transactions that their participation requires.

Citizen shares of money can originate by authority of Congress, not as a debt, but as a public utility (Cook, 2008) essential to the operation of the economy. Those citizen shares of money would establish a base money supply that is debt free, to circulate
simply facilitating citizen sharing of the work and the wealth that their work produces.

Congress through the President could instruct the Secretary of the Treasury to create a National Capital Account of $200 billion. That capital amount would be enough to send the 150 million registered voters, plus the 50 million eligible but unregistered voters, $1000 each. The effects of that infusion of new citizenship-based money could then be studied and a decision made about what to do next.

Other Reform Proposals

Modern Monetary Theory (MMT) advances the understanding of money by recognizing the essential role of government in making money legal tender and requiring that it be used to pay taxes (Wray, 2012). However, MMT views money as always having two faces, a double bookkeeping entry, a credit for one party and a debit for another (Ibid., 272).

Money originated as a citizen’s share would not be a credit balanced by a debit. It would be money created debt-free just like votes are created debt-free when a citizen registers to vote. The person registering receives a vote without a corresponding debit anywhere else. Gold coin had a similar property. When gold was minted into coin, there was no double entry bookkeeping of a debit and a credit. There was a simple addition of new coin to the money supply.

Money issued as a right of citizenship would also be a simple addition of new money to the money supply. In restricting the meaning of money to debt, MMT perpetuates the debt money system without acknowledging the enormous growth of debt with its corresponding creditor claims that we face today.

Another reform effort called "Sovereignty" under the leadership of Ken Bohnsack in the 1990s advanced the understanding of money by recognizing that Congress can originate money interest-free. The Sovereignty proposal is that Congress create new money and lend it to tax supported bodies for capital projects and to reduce their interest-bearing debt burdens. This proposal received the official support of more than 3600 public bodies, including school boards and county, township, city, and state legislatures (Blain, 2013). The American Monetary Institute adopted the Sovereignty proposal as part of its own plan, which was introduced in Congress as HR 2990 by Dennis Kucinich on September 21, 2011 (http://www.monetary.org).

The Sovereignty proposal stops short of the citizen shares proposal by requiring that the loans be repaid. The Sovereignty loans would be interest-free, but not debt-free. The citizen shares proposal is that the new money be debt free, a permanent foundation for the money supply, with no interest required to keep it in existence. Just like votes form a permanent supply essential to the functioning of political democracy, money originated as citizen shares would be a permanent foundation essential to the functioning of the economy.

Richard D. Wolff (2012) would reform capitalism by establishing political democracy in the work place. Worker ownership and management of work places improves working conditions and wages, but is not economic democracy. It remains political democracy in that workers still vote for managers and policies where many votes produce one outcome. Economic democracy decentralizes decisions with money, empowering individuals to make their own decisions autonomously, not collectively.
Government origination of money as citizen shares, not to be bought and sold to make money, but as money itself, to facilitate sharing the work and the wealth produced by citizens of the national corporation, would be the foundation for economic democracy as citizens voting by the jobs they choose to do and the purchases they choose to make with their money, democracy as direct and daily as democracy can be (Blain, 2010).

David Harvey (2013) thinks we should not overlook features that have made corporations like Walmart successful. Thinking of a nation as a corporation owned by its citizens whose money are citizen shares follows from his advice.

Ravi Batra (1987) wants reforms to reduce the role of government in favor of a fairer free market. One of his reforms would limit the maximum salary to no more than ten times the minimum wage (ibid., 183). The Provisional World Parliament in 2004 meeting in India adopted the rule that the highest compensation should be no more than four times the lowest compensation. http://worldlegislativeacts1-26.weebly.com/wla-22-summary.html. Defining a standard wage per hour as proposed here would help to reduce compensation disparities, which is the goal of both proposals.

Richard C. Cook (2008) proposes that people receive a guaranteed annual income to fill the gap between what they receive in wages, interest, and dividends and the nation’s GDP. Citizens issued shares of money is similar but based on a different rationale, namely, that citizens have a right to shares of money as the owners responsible for the general welfare of the national corporation.

Economists like the “quantity theory of money” (http://www.investopedia.com/articles/05/010705.asp)

\[ MV = PT \]

Where M = Money Supply,
V = Velocity (the number of times money changes hands),
P = Price Level, and
T = Volume of Transactions of goods and services.

The quantity theory of money says that an increase in the money supply (M) with velocity (V) and transactions (T) unchanged, will lead to increases in prices (P). It is this theory that causes economists to exclaim that any increase in the money supply will cause inflation. There is nothing in the theory that defines what quantity of money is ideal or necessary for an economy to function well, or at all. Nor does it acknowledge that the M is not money at all, but debt-to-creditors circulating as money. Nor does it address the lack of any definition of the meaning of the word “dollar” on the money. The quantity theory of money assumes that the value of money depends on the number of dollar bills in circulation rather than a standard printed on dollars. It is like saying that the length of a yard depends on the number of yarsticks in circulation rather than a fixed official yardstick defining its length. All told, the quantity theory of money is a good example of a pseudo-theory.

Citizen shares, issued per capita to citizens, would increase and decrease with the quantity of registered voters. The ideal amount per citizen would still need to be reached inductively by experience. Citizen shares of money could also be issued by paying people to produce goods and provide services that add to national wealth like building infrastructure and teaching school.

With any or all of these reforms, there would remain the enormous overhang of existing debt to be addressed.
Conclusion

When Robert Morris founded the Bank of North America to gain the support of the “moneyed interest” for the new government, he disregarded the compounding growth in debt that a debt-based money supply would produce. With debt from that compounding growth process now too big to continue, we must begin to build a money supply based on the understanding that citizens have as much right to own the money supply of their nation as they have a right to vote.

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Other Smashwords eBooks by Bob Blain


*The Fourth Option: Citizen Shares* presents many of the statements by people supporting the Sovereignty proposal that government issue money as interest-free loans to tax-supported bodies. https://www.smashwords.com/books/view/295372

*The Most Wealth for the Least Work Through Cooperation* presents a system beyond capitalism, where we can all thrive.