Class, Race and Corporate Power

Volume 3 | Issue 2 Article 2

2015

Crises and the Myth of the Money Supply

James H. Nolt
New York University, noltjim@hotmail.com

Crises and the Myth of the Money Supply

Abstract

Money, credit and capital are three fundamental economic terms that every high school student, at least, should understand. Yet we live in a society that does not treasure clarity about itself. Power prefers obscurity. So not only do few high school students understand these concepts, but few PhDs in economics do either. If you learn anything from this article, at least I hope you will understand these three. If you already know, or think you do, what money, credit and capital are (readers of this journal *should* know these), perhaps nonetheless you will be somewhat surprised by the simplicity, clarity and power of my treatment of these basic concepts. Most importantly, understanding these better makes it much easier to understand why economic crises occur. These are not primarily caused by errors in government policy, but by the process of capitalist competition between bears and bulls, involving the conflicting interests of creditors and debtors. Strategic power in a capitalist economy rests with those who advance and withdraw credit at the highest levels.

Keywords

Money Supply, Credit, Crises, Economic Crises, International Political Economy

Money, credit and capital are three fundamental economic terms that every high school student, at least, should understand. Yet we live in a society that does not treasure clarity about itself. Power prefers obscurity. So not only do few high school students understand these concepts, but few PhDs in economics do either. If you learn anything from this article, at least I hope you will understand these three. If you already know, or think you do, what money, credit and capital are (readers of this journal *should* know these), perhaps nonetheless you will be somewhat surprised by the simplicity, clarity and power of my treatment of these basic concepts. Most importantly, understanding these better makes it much easier to understand why economic crises occur. These are not primarily caused by errors in government policy, but by the process of capitalist competition between bears and bulls, involving the conflicting interests of creditors and debtors. Strategic power in a capitalist economy rests with those who advance and withdraw credit at the highest levels.[1]

Today there is persistent focus in the public media about only a few topics regarding the economy. Among these are the ever changing values of stocks and certain stock market indices (rather like sports scores), and the other is the activities of central banks like the U.S. Federal Reserve System (Fed) and its alleged control of the money supply. If you have taken courses in economics, you have certainly imbibed the myth of the money supply, but even if you only listen to economic or business news, you have encountered it nearly every day. The myth of the money supply is one of the foundational myths of our society, essential for obscuring the key relations of power. Once you understand why it is a myth, you tear back the veil obscuring one of the most potent powers in our society: credit power.

The myth of the money supply has three elements: (1) money is a stock of something in limited supply, i.e., it is scarce; (2) the supply of money, and therefore its value, is regulated by the government through the agency of its central bank; and (3) money is the means of payment for all the transactions in the society that collectively constitute the gross domestic product or GDP. Generally you will not find these three listed exactly the way I have listed them in money and banking textbooks, but this is certainly consistent with what they all teach. Unfortunately, all three are false. Even many people who are critics of capitalism may be surprised to learn how many of its myths they have internalized.

When I refer to textbook economics I refer to a tradition that starts in 1948 with the famous Nobel-prize winning MIT economist Paul Samuelson.[2] His textbook pioneered the organization of topics, diagrams and concepts that are standard in all mainstream introductory textbooks ever since. Not only that, but innovation now is difficult, because the College Board's standardized Advanced Placement exam fixes the curriculum that must be taught in an introductory class. If students study these topics further they will take a course in money and banking, which also adheres to the myth of the money supply discussed here. It is rarely possible to learn much about the real financial system in an undergraduate economics education. Most graduate students just learn the same topics at a more mathematically rigorous level, so they rarely learn

[1] More detailed elaboration and historical examples may be found in my book, Nolt (2015) and my weekly blog at www.worldpolicy.org/polarizing-political-economy. Also useful on financialization and crisis is Turner (2015).
[2] I own two editions of Samuelson (1951) and Samuelson (1973). The second of these was the textbook used in my first economics course. I have taught introductory economics and money and banking using recent but similar texts.

much about the real financial system either, with the exception of a few unusual graduate programs, including (in the U.S) the University of Massachusetts at Amherst (where I earned my MA in economics), the University of Missouri at Kansas City, and the New School University (where I taught, though in the political science department, not economics). What I criticize as the myth of the money supply is the dogma of a mainstream economics education.

Beyond the mainstream there is little systematic economic thinking that penetrates beyond the circles of a few academic specialists. Perhaps the most well-known critic of mainstream views is post-Keynesian Hyman Minsky, who has also been influential in some Left circles. Minsky's treatment of money and credit is an improvement over the neoclassicals, but still far from being adequate because he inherits too much of the conceptual baggage of the mainstream economists, including their confusing use of the term "money" rather than the clearer and more definitive term "credit." For example, Minsky confusingly refers to the bill market (discussed below) as the "money market" (common business argot), although economists do not count bills as money. He treats the mainstream definitions of money skeptically, but without definitively replacing them with a thorough and strategic analysis of credit.

The main problem with Minsky's approach to credit is that he outlines some of the reasons for bullishness, but neglects bearish interests. His classification of finance into hedge, speculative or Ponzi based on the increasing burden of debt service relative to current cash flow is not a very helpful distinction. Most sober productive long-term capital investments would be classified by his pejorative term "Ponzi finance" during their early years using his schema, whereas the most extremely leveraged bulls might look like hedge finance during boom times when they are yielding income higher than the cost of borrowing. What creates vulnerability is not the current flows, but the debt overhang in relation to the cost and broader market impact of unwinding leveraged positions in a crisis. Yet my main point here is not a systematic criticism of Minsky, but rather challenging the neoclassical approach that dominates the textbooks and mainstream economics education.

What is money?

We all think we know what money is. We use it every day. But try asking people to define money and how it is created. Few people have a clue. But they will still venture confused and inconsistent guesses. Those who have studied quite a bit of economics are no less confused than the rest, but they may have more confidence that their confusions are correct.

Economists define money in two distinct ways, which is already a clue that something is wrong. On the one hand, they use a functionalist definition of money as a singular substance with three functions: society's means of payment, a store of value, and the universal metric of value. Actually, only the last of these is a function unique to money. Credit has for centuries been the main means of payment in societies. Economics largely ignores its vital role. A multitude of assets serves as stores of value, so money is by no means unique in this regard. Each monetary region, usually coincident with a nation, does have an official currency that is the principle metric of value in that society. Unfortunately, unlike other metrics such as the meter and kilogram, the

value of the money unit, say one U.S. dollar, is itself always changing. This was always true, including under the gold standard. So although money is our universal measure of value, it is perpetually inconstant.

On the other hand, economists, when measuring the quantity of money, the money supply, give a different class of definitions. They define money as a measurable stock of something that performs the three functions listed above. It is a scarce stock of *something*, they are very definite about that. But when it comes to measuring that stock, they give a confusing and obviously arbitrary plethora of definitions including M1, M2, M3, M4, etc. In lovely regularity, these are conveniently ranked.

But you should immediately ask yourself, which of these is the quantity of stuff that performs the three functions of money? The correct answer is "all of the above, and more, but not exclusively" though few economists would dare ask this question on an exam for fear you might start to realize there are skeletons in the closet. If money is some definite and fixed quality of something truly fundamental to the economy, surely it should be measurable in some consistent way. But it is not. All the measures of money are equally arbitrary, though the one most consistently used and probably meant when you read about what is happening to the "money supply" is M1. Yet M1 is no less arbitrary for being the most commonly used by economists and central banks. Certainly few ordinary people know the definition of M1 or refer to specifically that when they talk about money.

Let's start to resolve the inconsistencies and to arrive at a better definition of money. Summarizing so far, economists consider money to be both the universal measure of value (which indeed it has become) and a definite stock of something that can be measured in units of itself. These two are obviously two different things. Meters, degrees centigrade and kilograms are units of measure, but it is nonsensical to ask "how many meters are there in the world today?" The U.S. dollar is a unit of measuring value (though, unlike the meter, the dollar varies in value over time), but economists *do* ask, "What is the current stock of dollars?" They may inform you that "the money supply" has increased 5 percent. It should be obvious (though economists make sure it is not) that money as a unit of measure is not the same thing as the supply of something we can measure in money units.

Currency is one thing everybody, ordinary people and economists alike, agree is money. Currency includes coins (once of significant metallic value, but now mere tokens) and paper money. Economists make one small modification in defining as part of the money supply only that portion of the total stock of currency that is in the hands of the public and not in the central bank's vaults. In other words, the money supply falls when currency returns to the central bank. You might wonder which of the M# definitions of the money supply represents circulating currency. In fact, currency is included in all of them but is typically a minority of all of them. That is, all definitions of money supply that economists use include much that is not currency.

Most of what the M# definitions include other than currency is the current balances in various categories of bank accounts and even financial instruments. This is indeed where the economists' definitions of "the" money supply become quite arbitrary and varied. Few economists today are self-conscious about the theory behind this plethora of definitions. They just take these as given. Generally there are two things that distinguish higher from lower M#: the higher the rank the more illiquid and the more likely that the money in question is used primarily by

corporations, investors and the rich rather than ordinary folk. Economists are generally aware of the first criteria but less so the second. This second distinction is best seen in the difference between M2 and M3. M2 includes small denomination savings accounts, but not large ones. Clearly, small accounts are no more liquid than larger ones of the same type. Similarly, brokerage accounts (where by the way nearly all of my liquid wealth resides) are counted in M3 rather than M2 even though they are in fact more liquid than small denomination time deposit accounts that are in M2. So clearly, liquidity is not the sole criteria for ranking types of money, though economists sometimes claim that it is.

The reason rich people's money counts less as money than that of ordinary folk derives from the myth of the money supply, specifically, point 3 above, the idea that money is the means of payment for all the transactions in the society that collectively constitute the gross domestic product or GDP. Rich people may more likely use their forms of money for something other than buying GDP, e.g., for buying assets, financial and real. Thus the forms of money most readily used by the rich and powerful institutions that dominate the stratosphere of the credit system are made to seem less potent, disappearing into the indistinct clouds of ever higher M#. In fact, these forms of money are even more concentrated and potent, but in strategic ways discussed in the final section of this paper.

The myth of the money supply is implicit in the first textbook equation about money:

$$M \times V = P \times Y$$

Where M = the stock of money (whether M1, M2, or whatever), V = the velocity of that particular stock, or the number of times per year the stock turns over, P = the price level (measured by a price index), and Y = national income as measured by GDP. In fact, only three of these four are actually measured directly (if imprecisely), whereas V is just a residual number that solves the equation and is presumed to be meaningful. This formula is often called the fundamental monetary equation.

The story told in textbooks and introductory economics classes is that this equation is meaningful because, supposedly, the stock of money, M, is the means of payment for the GDP, that is, newly produced final goods and services. Therefore, if M increases but production does not or cannot immediately increase, the equation cannot balance unless the price level increases. Hence the most common conclusion from this mythic artifact is the monetarist argument that if the money supply increases faster than the rate of GDP growth, inflation will result. Keynesians counter that sometimes increasing the money supply actually increases the GDP without causing inflation, especially if the economy is plagued with unemployment and idle productive capacity, as is most evident during every downturn.

Every aspect of this story is problematic. First of all, money, however defined, is not the principal means of payment for the GDP, and second, money is also used for purposes other than means of payment for GDP, which economists will sometimes admit, but then ignore when it comes to formulating monetary theories. The principal means of payment throughout history has been credit. Credit predates money. The function of merchant capital has always been to conserve money and leverage profits using credit. The second point, that money is used for purposes other than payment for GDP, connects with my point above about why economists treat higher

M# as less money-like than M1. Rich people's money fades into the clouds of indistinct myth. The weakest forms of money, dispersed among consumers, are highlighted whereas the most potent and concentrated forms are more often ignored.

There are three main uses for money that are obscured by the formula M x V = P x Y. First, money may be used to buy assets, which is any store of value (including money itself). Most assets are not counted as part of GDP because they are not newly produced goods or services. For example, land is not produced, so money used to buy land or already existing buildings erected on that land, i.e., real estate, is not counted as part of GDP. A portion of such spending would count as GDP only if the buildings are newly erected, thus part of this year's output. Money may be exchanged for financial instruments, such as stocks, bonds, derivatives, foreign currencies, etc., that have value but are not produced and therefore not part of GDP. Money may be exchanged for antiques, previously existing products like used cars or Picasso paintings. These things were counted as GDP in some past period, but when recirculated later at a price higher or lower than their original value are no longer counted in current GDP. So money is used as means of payment for many things that are not counted as part of GDP and therefore represent an unnoticed "leakage" from the fundamental monetary equation. The only way this leakage is noted at all is in the definitions of money, since corporate and rich people's money is more likely to be spent on assets than ordinary people's money, it is relegated to the more rarified species of money, M3 and above. However, this is a very indirect and inexact way of accounting for this difference by a "science" that prides itself on quantitative exactness.

The second "leakage" of money not shown in M x V = P x Y is less significant, but nonetheless important to note. Money used as means of payment in intermediate transactions is not counted as part of GDP. For example, when a new car is sold, its price is included in GDP. But many transactions occurred in purchasing the inputs to construct that car, including the car company's purchase of steel from a steel company, etc. All these intermediate transactions may be mediated by money, but that use of money is ignored in the fundamental equation. This could be significant, for instance, if companies become more vertically integrated and thus incorporate more of the production process within a single company. In that case, many intermediate transactions disappear and become instead administrative transfers within the same company. This is increasingly relevant today as more than half of world trade occurs within divisions of the same company, thus bypassing the market system entirely. The demand for money would thereby decrease, but since the equation distracts attention from this leakage, the issue is most often ignored. Of course, as we shall discuss in the next section, these sorts of transactions, like most business trades, are not in fact mediated by money, but by credit, which is why this leakage is not as significant as it otherwise might be.

The third usage of money not shown in the formula but sometimes considered by economists is as a store of value. Remember this is one of the functions of money typically given. But what economists do not draw attention to is that this usage is an alternative to money's usage as a means of exchange. If money is hoarded (Marx's terminology) then it is not spent. The equation captures this indirectly, since hoarded money will show up as a reduced velocity of money. Keynes introduced money hoarding as "liquidity preference," i.e., sometimes, particularly in times of crisis, people will hold onto more money than usual to meet the contingencies of the crisis. Keynes and modern economists treat such hoarding as primarily a defensive impulse, driven

by fear of the sudden need for means of payment to meet such contingencies as the loss of a job or the inability to rollover a loan. But as we will see toward the end of this paper, the offensive uses of hoards are at least as important. Money hoards serve the same strategic purpose as reserves do in military strategy. Clausewitz and Sun Zi are at least as important in understanding their uses as are Keynes and Marx.

Economists seldom grasp the strategic uses of money hoards. One of the clearest illustrations of this was penned around the time of the Great Depression by prominent economist Jacob Viner:

> [Money] is a store of wealth. So we are told, without a smile on the face. But in the world of the classical economy, what an insane use to which to put it! For it is a recognized characteristic of money as a store of wealth that it is barren; whereas practically every other form of storing wealth yields some interest or profit. Why should anyone outside a lunatic asylum wish to use money as a store of wealth? (Minsky 1977: 77)

Viner is correct. In the perfect equilibrium world of the classical (what we now call neoclassical) economy, money as a store of wealth would be nonsensical, but that imaginary world does not exist. In the real world, cash reserves are often a vital strategic resource. It is no wonder that neoclassicals like Viner and his equally famous contemporary, Irving Fisher, both lost significant wealth during the Great Crash of 1929, whereas Keynes, preserving liquidity then using short strategies, added to his. The neoclassical view is the suckers' play, though I hesitate to be as impolite as Viner and call it "lunatic."

The importance of money hoarding shows the uselessness of the fundamental equation. If the supply of money increases, this may be a sign of increased purchasing power and therefore of growing GDP (for Keynesians) or increased inflation (for monetarists) *or* it might just be a sign that money is being hoarded because of a dire economic crisis. The fundamental equation of money cannot distinguish the difference, at least not *a priori*. In fact, the U.S. money supply increased during the early years of the Great Depression in both nominal and especially real terms (since deflation meant money's value was increasing). In such circumstances, monetarists have it backwards. Instead of the increase of the money supply signaling increased purchasing power and thus inflation, it portended a collapse of demand and hoarding of means of payment as a store of value instead. This is also why the massive quantitative easing (QE) policies worldwide after 2008 did not cause the inflation that monetarists crowed about.

Instead, when banks were bailed out in the aftermath of the 2008 crises, they held most of their newly acquired taxpayer cash as excess reserves, preferring to secure their own solvency at the expense of debtors who could no longer borrow. Likewise, many non-financial corporations hoarded cash in the aftermath of the crisis rather than hire or expand their physical investments. They wagered that if they could not count on credit from banks, they needed more cash to secure themselves in a risky economy. Therefore, despite the enormous largesse to the banks, extensive hoarding of money meant that the velocity of M1 fell to the lowest level in history, less than one. Previously "normal" levels were about five. Rather than inflation, the problem became deflation. As always, it was tightening private credit that caused deflation, not the less significant movements of the money supply.

Economists' treatment of money is so jumbled and imprecise because they are determined to apply to money their one and only tool of analysis. Economics is the study of choice under a constraint. So economists always must define a constraint, in this case, the fixed supply of money, and a choice, for monetary economics, it is the choice between spending and saving. This is the only method they know, so it is absolutely necessary to define money in a way that makes it a definite scarce quantity of something. In former times, it was a scarce quantity of specie. Even Marx was misled by this view. Nowadays, it is a scarce quantity of something presumably "controlled" or at least influenced by each nation's central bank.

This is far too narrow a view. In fact, the value of money itself is determined not by the supply of gold or what the Fed does, at least not solely. The value of money is not determined, as supposedly everything is in economics, by the supply and demand for itself, however this disparate artifact is defined. **The value of money is determined by the expansion and contraction of credit**. Throughout history, even in most socialist countries, the supply of credit is primarily a private power. Government regulation may channel and constrain this power, but unless credit is a public monopoly, which it is not even in most socialist countries, then the value of money is determined collectively by the sum of all credit decisions made by all potential creditors in the society. Money itself is merely one form of circulating credit, but it is the totality of credit in relation to the real productive capacity of the economy and the strategic decisions of capitalists that determines money's value. Thus we study credit directly, as economics seldom does, in the next section.

What is Credit?

The word 'credit' derives from the Latin verb for trust, *credere*. Whereas the quintessential economic transaction is an exchange of value for equal value in a different form, the quintessential credit transaction is the exchange of value for a promise of returning an equivalent or enhanced value in the future. Historically, credit predates money and does not require it. Therefore, economists who define interest as "the time value of money" are anachronistic. A credit transaction is a fundamentally different transaction than an economic exchange of equal values.

An exchange occurs at a point in time and terminates immediately. It does not take place across extended time. It does not necessarily entangle the two parties to the exchange in an ongoing relationship. The most common form of exchange is a purchase-and-sale. Another form, barter, is largely mythic outside of economics textbooks, wherein is it often assumed to prevail in order to avoid considering the effects of money and credit.

A credit transaction necessarily entangles the creditor and debtor in an ongoing relationship that extends across time. For the duration of this relationship, the interests of the creditor and debtor are opposed. James Madison,[3] probably the foremost political theorist among the American presidents, lists creditor and debtor second (after the propertied and propertyless) among the opposing factions that necessarily strive for opposite political policies, validating his constitutional design of checks and balances. Indeed it is the credit relationship that necessarily constitutes capitalism as a two-party system and that animates the business cycle. If anything, it

[3] *Federalist Papers*, No. 10, p. 1

is the most fundamental economic transaction, yet it is profoundly neglected by economics, which prefers to recast every transaction as an economic exchange of value for value.

The expansion of credit, even in its most primitive forms, is bullish. Thus the expansion and contraction of credit is directly related to the business cycle, which is sometimes (I think too narrowly) referred to as the credit cycle. Capitalism, constituted as a system with opposing credit interests, necessarily has a business cycle. Political regulation can channel and influence this competition, but cannot eliminate it. Therefore, Keynesians are wrong to believe that Keynes' discoveries allow the business cycle to be tamed or managed adequately. We will explore this point in more detail below.

Economics likes to begin with fables. So consider a realistic fable about credit in prehistoric times. One farmer possesses an ox. Another does not. If a neighbor lends his ox when it would otherwise be idly grazing so that his neighbor can better till her fields, total output will expand. More will be produced using exactly the same economic inputs because idle capabilities are engaged by this extension of credit, in the form of an ox, from one farmer to another. When the ox is returned to its owner, the transaction is complete. Whether or not some interest payment is included is incidental to defining this as a credit relationship.

Consider the next credit relationship that emerges in prehistory, generating the first capitalists. One farmer is particularly successful for whatever reason, growing considerably more grain than her family can consume. The myth of exchange says that this farmer will exchange her excess grain for other things she lacks. But what if all her neighbors are also grain farmers? At harvest time, grain is plentiful and nobody wants the farmer' excess. So instead she stores it in earthen jars. (Recall the Biblical fable of seven fat years and seven lean years.[4]) Months later, deep in the winter, some of the other farmers have consumed most of their grain, even the seed they had saved for next year's planting. Perhaps some was consumed by rats. Now the farmers who have depleted their grain are desperate. They may beg the prosperous farmer for a share of her excess grain. If she gives freely, it is altruism. If she cuts a deal, she becomes the first capitalist and a creditor. The deal is this: "I will give you one bag of grain now, but when you harvest in the fall, you must return back to me two bags." I am not making this up. This is the exact deal that was still common in the rural Philippines when I visited during the 1980s. If the debtor's next harvest is also inadequate, and the creditor has sufficient authority or force of arms, debt slavery for oneself or one's dependents is the next step. This is a fable, but undoubtedly close to the prehistoric truth about birth of economic classes.

The next credit relationship is the first that makes its mark on written history: the temple as creditor. The most successful farmer-creditors accumulate so much surplus grain that they must build large structures to contain and defend it. They brag to their neighbors that they have so much because the gods (or perhaps one specific god) have favored them. Furthermore, anyone who displeases them or offends their god will suffer. In fact, the poverty of others is the very mark of their inequity and the lack of favor shown to them by the gods. However, they might improve their station by donating the first fruits of their animals and harvests to the god. The former

[4] Genesis 41:26-27

farmer-creditors, who have set themselves up as priests, no longer need to work the land themselves. They can live entirely off the donations of others, and support armed retainers as well. Beyond that, their additional surplus goods are lent at interest.

We know this because many of the earliest cuneiform documents are actually debt contracts, specified not in money (which did not yet exist), but in kind. The debtors are various. The creditors are most often a god, represented of course by his/her local priestly intercessor. Interest was paid in kind. Default incurs penalties both practical, debt slavery, and supernatural, a divine curse (Homer and Sylla 2005: 3-6, 17-35). This is the origin of both banking and institutionalized religion. As others have observed, an architectural shadow of this origin remained into the twentieth century insofar as the preferred structure for a bank imitated the classical temple.

All these early forms of credit were bilateral relationships between a creditor and a debtor. The next great innovation in credit, whose appearance seems likely to have been coincident with seaborne trade, was the development of instruments of circulating credit, including both money and bills of exchange. A confusion has long existed about money, because many of its early forms had intrinsic value as precious metals, that money must have intrinsic value to function as such. As I said, even advanced social thinkers, including Marx, entertained this illusion. However, considering money and bills of exchange together, we can see that even at its origin, money need not have intrinsic value identical to its face value, because it also functions as circulating credit. Bills of exchange, a purer form of circulating credit, illustrate this more directly.

Even though coined money most likely predates bills of exchange, I treat bills first because they are a purer form of circulating credit. Once you understand bills, then coins and paper money are easier to understand correctly. Whereas bilateral credit effects only two parties directly, circulating credit may act as a medium of exchange and thus facilitate a number of successive transactions. Like all credit, bills depend on trust. They will circulate only if the promise of the original issuer to pay the face value is trusted. A bill is a promise to pay a specified amount, the face value, in the future, often on a specified day known as the maturity date. The issuer could be anyone, but most often it is a well-known merchant or banker considered creditworthy within at least commercial circles. Bills are typically discounted, that is, they are accepted at a value slightly below their face value until their maturity date, when they may be redeemed by the issuer for their full value.

Circulating credit instruments are called by many different names, but for simplicity they can be grouped into just a few categories: bills, bonds and currency. Paper currency may also be referred to (as printed on the U.S. money) as notes. In addition to these three we will also consider loans, which are usually considered bilateral rather than circulating credit, but this is not always the case, as we shall see.

For purposes of our discussion, **bills** are any negotiable instrument that does not pay explicit interest but does have an implicit yield because they typically trade at a discount prior to their fixed maturity date. What I call bills may be designated with that term or also called letters of credit, bankers' acceptances, notes, commercial paper, short-term money, repurchase (repo) agreements, zero-coupon bonds, etc. All bills have a face value denominated in a currency and a maturity date at which that face value is due from the issuer. Their current market price is almost

always below the face value, reflecting an implicit interest rate between the present and the maturity date, which is typically within one year or less.

For hundreds of years bills have been a common means of payment in many mercantile and governmental transactions. The receiver of the bill then takes it to a discounter, usually a merchant or investment bank, who is confident of the credit-worthiness of the issuer and is thus willing to exchange cash for the bill or increment the sellers' account. Very large bill discounters, such as the Bank of England during the eighteenth and nineteenth centuries or any large investment bank, process so many bills from so many issuers that they have a statistically significant sample of all extant credit. Nearly anyone can issue a bill as long as their credit is adequate for their bills to be acceptable. However, if any one issuer seems to be issuing too many bills, large discounters who are accumulating their bills may reduce what they are willing to pay (increase the discount) or refuse to accept any more bills from that issuer. Thus the bill market is regulated not by governments, but by the collective willingness of discounters to buy bills.[5]

Bonds are a class of circulating credit instruments that include debentures and annuities. They are similar to bills except that they pay interest and tend to have much longer lifespans. Their maturity is measured in years rather than days, weeks or months. Some bonds (actually, better termed annuities) are even perpetual. That is, unless they are repurchased by the issuer, they continue to pay interest indefinitely, some for centuries. Others are life annuities, paying interest for the life of the owner. Most true bonds, however, have a fixed maturity date, like a bill, but the date might be 5, 10, 30 or even more years from the date of issue. The current owner of the bond receives the coupon rate, a fixed interest payment that is percentage of the face value of the bond. Underwriting bills and bonds on behalf of merchant, corporate, or governmental clients is the main business of investment or merchant banks.[6]

Like bills, bonds may be traded from one owner to another, but that market price that may be higher or lower than their face value. The current price of a bond is often expressed as a percentage of its face value. For example, a $10,000 5% bond trading at 95 would sell for $9,500. Every year (often in two semi-annual installments) it pays $500 interest to the current owner. If 5% is a high interest rate at the moment, then the bond is more valuable, and will typically sell for a price above par, say $11,000. But if 5% currently is not a very attractive interest rate, the bond will sell at a discount, below par. Of course, the price of the bond will converge toward its face value as it nears maturity. Bonds and bills are discounted more whenever the risk of default increases. A sovereign borrower (a government) may default merely by refusing to honor the bond when it matures or by refusing to make the coupon payments. Since a bond is a legal contract, a private issuer can only default on payment by declaring bankruptcy, though sometimes settlements are reached by negotiation between debtor and creditor that reduce the amount paid out, but avoid complete default or bankruptcy. This is called renegotiating or rescheduling a debt.

What most people call money I will hereafter refer to as **currency**, i.e., circulating coins and paper notes. Most people do not think about it, but these are also debts. Until the twentieth

---

[5] Two of the most useful introductions to the bill market and its importance are Bagehot (2001[1878]) and Neal (1990), although Neal's account suffers somewhat from his efforts to shoehorn the evidence into the defective idiom of modern finance theory.

[6] A useful though anecdotal introduction to bonds and other financial instruments is Ferguson (2008).

century, notes were usually issued by certain private banks. Nowadays they are usually issued by a country's government-controlled central bank, such as the U.S. Federal Reserve. Either way, they are a liability or debt of the bank of issue. The difference between currency and a bill is that currency is intended to trade at its face value. It has no maturity date. It is payable at face value on demand. One disadvantage relative to a bill or bond is that it pays no interest. Currencies trade at a discount to their face value only when the solvency of their issuer is in question, as for example happened to Confederate dollars during the later part of the American civil war. Currency has another significant disadvantage: it is easily stolen. Since bills are only traded and discounted within business circles wherein participants are usually mutual acquaintances, a stolen bill is much harder to use as means of payment than is the more anonymous currency.

Currencies are strong or weak not according to the wealth of the countries wherein they are legal tender, but according to the resources of the issuing bank. For example, Russia until World War I was a large, fast-growing power, but its currency was fairly weak because its banking and financial system were underdeveloped. Tiny Belgium had a stronger currency because of its very well developed financial system and secure bank of issue, backed by the House of Rothschild.[7] Thus Belgian banks and investors habitually lent capital to Russia. Countries that export capital generally have strong currencies, but even net capital importers, like the U.S. today, may have strong currencies if they have well developed financial systems attractive to foreign investors. Prosperous financial systems, not strong governments, make currencies strong.

There is a fourth form of credit that often becomes circulating credit, but is not traditionally associated with the other forms. Bank **loans** and deposits are the quintessential banking activity described, in stylized fashion, in economic textbooks, particularly money and banking texts. I prefer to think of deposits in the same way as banks treat them in their own accounting. When you deposit your money in a bank, you are actually loaning the bank your money. They may pay you interest on this loan. Meanwhile, they will take the capital you loan to them and loan it out again at a higher rate of interest to other clients, making a profit on the interest spread. At first glance, such deposits-and-loans appear to be a form of bilateral credit. Sometimes they are. More often these funds will circulate, as when your bank deposit is in a checking account, which you use as means of payment, essentially transferring the funds owed to you by the bank to some other party.

Money and banking textbooks treat deposits as the prerequisite of loans, but actually, broadly speaking, the two are independent of each other. Credit can be created from nothing. All it requires is trust. A bank's sources of capital are various, and may include but do not require deposits. A bank's uses of capital are also various. They may include but do not require loans. The specific sources and uses of financial capital vary among banks and through history. But credit may be created easily from nothing. A bank may loan a client $10 million merely by changing his account balance in its ledger. The accounting is consistent, because the debtor's new deposit is the bank's liability and the loan is its interest-paying asset. Whether or not a bank or other creditor maintains reserves against any loan is a secondary question.

[7] An indispensable introduction to Rothschild financial operations is Ferguson (1998) and (1999).

Loans may also be sold to third parties. During recent decades this has become routine. For example, the bank that originated my home mortgage soon sold it to another. It was transferred several times since. Like most loans today, it has become circulating credit. Loans are often combined together into pools owned by special purpose corporations that use this pool of loans as collateral issuing and funding bonds, called collateralized debt obligations (CDO). This process is called securitization. Such instruments were at the heart of the 2008 world financial crisis. Loans, bonds, and financial derivatives are all linked together. They must be understood as elements of a comprehensive credit system.

The totality of credit, including both bilateral and circulating credit, is issued at the initiative of myriad debtors without any central coordination or control. Therefore it is impossible for the total quantity of net new credit to exactly maintain a constant value of money. If credit is issued faster than the growth of the stock of goods and assets purchased with it, then some prices must inflate as too much buying power chases too few assets. This may seem an echo of the textbook explanation of inflation, but my account is much broader because I recognize that the credit-creation process is anarchic and that new credit can be spent on GDP or on existing assets. Economic textbooks try to tidy up this inherent anarchy by making money (merely one form of circulating credit) *the* means of payment, whereas I recognize that bills and other forms of credit are common means of payment for both GDP and assets.

Furthermore, textbooks treat money as something scarce, in fixed supply, whereas credit is expandable almost at whim. The only limit to the expansion of credit is the willingness of creditors to issue it and debtors to demand it. This limit is explored in more detail in the final section of this paper. Finally, as mentioned above, textbook economics teaches that the supply and demand for money determines its value, whereas I contend that the supply of credit in relation to the pool of tradable goods and assets determines the value of money. Excessive use of credit causes inflation, including asset price bubbles. Excessive curtailment of credit causes deflation, including asset market crashes. What economists refer to as money in measures like M1 and M2 is not typically the most volatile part of credit. Rather, it is the unregulated private issuance of credit in the form of bills etc. that most animates the business cycle. Prices boom when credit is easy and crash when it is tightened.

Capitalist power includes owning the means of production, but is not confined to that. Perhaps the foremost strategic power within capitalism is the power to advance or deny credit. Credit starts with bilateral credit, which remains significant today in most business transactions, since customers often receive credit from the buyer as an account payable, to be settled later. Few legal transactions require immediate cash payment, except during times of crisis. But it is only when circulating credit becomes the predominant form, with the proliferation of bills, bonds, currency, and circulating loans, that finance capital comes of age. Circulating credit facilitates the centralization of finance capital to an unprecedented degree from the Renaissance to the present.

What Is Capital?

Capital is wealth seeking augmentation. Not all wealth is capital, because some wealth, for example, a mansion that is the residence of its owner, is for enjoyment or display and thus is not owned primarily as an investment seeking augmentation. Forms of capital include wealth invested in financial assets, real estate not for personal use, productive assets, or merely liquid funds awaiting deployment. Some wealth normally not considered capital may function as such if the owner needs reserve funds, e.g., selling the family jewels.

Capital increases in two ways: by the increase in its own sale value, which is called capital gain, and by the income it may generate, including rent from real estate, profit from business ventures, dividends from stocks, and interest earned from loans or interest-bearing securities such as bonds. The total rate of expansion of capital is the sum of these two sources of growth. This rate can be negative if the market value falls by a percentage greater than the rate of income earned. Until an asset is actually sold, capital gains are called "paper profits/losses" because they are only theoretical. Only when an asset is finally sold are any capital gains realized or losses locked in.

Economists claim that returns to capital are justified by the value that capital contributes to the productive process. This is part of a theory of distribution known as the marginal product theory. Prior to the later nineteenth century, this view was not widespread. Classical political economy from Adam Smith through Karl Marx and John Stuart Mill viewed the social distribution of output among classes as resulting from both economic processes and political struggle among economic classes. Only with the rise of neoclassical economics since the 1870s has this distribution of income been considered almost entirely an economic process. I adhere more to the classical view.

Classical political economists did not believe in the marginal product theory. David Ricardo, for example, and neo-Ricardians since, argue that most often labor and capital are applied to production in relatively fixed "doses." If capital cannot be increased without increasing labor commensurately, then it is meaningless to try to define the specific contribution of capital (or labor) separately. For example, in sewing factory, each worker tends one and only one sewing machine. Adding a sewing machine without adding a worker to operate it is nonsensical. Yet neoclassical economic relies on defining the marginal productivity of capital as if capital can be added and its unique productivity measured without any change in the number of workers or the technology. There are some circumstances where this is possible, but many where it is not. As a general theory of income paid to the owners of capital, it fails.

There are other powerful logical and empirical reasons for rejecting the marginal product theory of distribution, but reviewing them all would be a distraction from my purpose here. Suffice to say I agree with the classical view that capital receives whatever income it does for various reasons, including economic causes, relative power, and, not the least, various random or serendipitous reasons. Unlike neoclassical economists, I do not believe that any particular distribution of profits reflects either justice or efficiency.

Unfortunately, despite the importance of our topic, capital, I know of no general work that treats it comprehensively. Marx wrote an important three-volume work entitled *Capital*, but

this work starts not with capital, but with commodities and then commodity money. It never develops an adequate theory of capital itself, since Marx, like the neoclassicals, neglects credit, perhaps the most important source of capital. This is understandable, since his real topic is not capital per se, but the source and distribution of surplus value generated by capital. His purpose is to demonstrate that the exploitation of labor is the ultimate source of all capital. One can agree with that and still understand that the proximate source of capital for most capitalists (other than their own or inherited wealth) is credit. Marx also claims he is interested in discerning the laws of motion of capitalism, but his unfinished inquiry foundered on his inattention to credit and its effect on both the business cycle and the value of money. Few Marxists have progressed much beyond where he left off.

Modern Marxist treatments do sometimes treat credit and parts of the financial system,[8] but most who do so either treat them formally, using a mechanical or structural method much like that of mainstream economics, or anecdotally, without systematically treating the main methods and strategies of finance capital, as I do here briefly and in more detail in my book (Nolt 2015). The focus of my criticism here, however, is on the mainstream theory rather than a comprehensive survey and critique of Marxist treatments of money, credit and capital. Yet I have not found any that explain the strategic intent of financial interests adequately nor treat the real instrumentalities of power within finance.

Capital expands for two reasons: increases in the social surplus and increases in credit. Marx focused on the former and neglected the latter. Social surplus expands, he contended, because the exploitation of labor creates surplus for the capitalists. The higher the rate of surplus, the more capital is created. The more labor that is incorporated into capitalist relations of production, the more capital is created. Thus increasing either the quantity of wage-labor employed or the rate of exploitation increases capital. Thus Marx saw the accumulation of capital as being very close to the process of production.

Ultimately, Marx is correct. Total social output and accumulated wealth do limit, in a very physical sense, what can be appropriated in total. But within these physical limits the quantity of capital commanded by any particular capitalist individual or firm depends less on the specifics of production than on the relations of credit.

An interesting example is one of the most successful stock traders of the first half of the twentieth century, Jesse Livermore. He was born into a modest farm family, but had a knack for stock trading. He started out in bucket shops, essentially mere gambling houses that wagered on stock prices, but was so successful that he kept getting kicked out of successive shops for winning too consistently. Eventually he accumulated a big enough stake to trade on Wall Street, winning his first million by the 1890s. He was especially successful at profiting from short positions, betting when stocks would fall. He made a fortune both during the Panic of 1907 and the Great Crash of 1929. Livermore never produced any real social product, but he made five fortunes and lost four. Every time he went bankrupt he was able to get back in the game because friends who trusted in his ability were willing to advance him the credit to start again (Smitten 2009). It is not necessary to produce or extract surplus value to have capital. All you need is credit.

[8] E.g., Foley (1986), Kotz (2015), Kotz et al. (2010), McDonough et al. (2010).

Marx marveled at the prodigious success of industrial capitalism in accumulating capital through three means: expanding the wage labor system globally at the expense of peasant agriculture, increasing the efficiency of production by scientific means, and increasing the exploitation of labor by lengthening the work day and cheapening the workers' means of subsistence. These were indeed spectacular features of the nineteenth century.

However the twentieth century marked a gradual transition from the predominance of industrial capital to finance capital. Make no mistake: industry is still vital to produce the physical social output. However, in all the wealthiest countries, industry is rapidly falling as the main employer of labor, even as a source of GDP. In the United Kingdom, for example, the birthplace of the industrial revolution, industry now accounts for less than one tenth of GDP. Even in low-wage countries like China, many factories are highly automated, employing German-made computer-controlled machinery and only a handful of productive workers. Entirely automated factories using industrial robots are not far off. In this "post-industrial" society, the physical means of production are even more alien to the vast majority of people than during Marx's time when the tools of the artisan and peasant were being replaced by the machinery of the factory.

The financialization of society is being further consolidated now, during the twenty-first century. Not only business transactions, but nearly all consumer transactions are mediated by credit, rather than the traditional money forms of cash or check. All trade is financed. All wars are financed. Even terrorists need financing. Nearly all distribution of income in the society depends more on credit relations rather than on the direct relations of production Marx analyzed in *Capital*. Ignorance of credit guarantees ignorance of the real relations of social power.

Credit itself is the main source of capital. Those who appropriate the greatest share of other people's money are the biggest players. This idea is simple, but both neoclassical economists and their Marxist critics typically neglect focusing on the center of modern capitalism: the credit system.

The credit system seems complex, but at the root it is simple. Understanding how capital is deployed strategically within a credit-driven system requires a working knowledge of the main financial instruments -- bills, bonds, currencies, loans, and derivatives -– and their strategic uses. Most importantly it requires an understanding of bulls, who use the leverage of credit to augment their capital by betting it on rising assets, including productive assets, and bears, who bet against the bulls. At its heart, financial capitalism must be a two party system, because every movement of asset values creates winners and losers. Prices rise, the bulls win. Prices fall, the bears win.

This inherent simplicity is often obscured by the fact the any particular capitalist at any moment may be simultaneously taking bullish and bearish positions in various specific assets. However, the two-party nature of capitalism appears most sharply at moments of general crisis when many if not most assets are falling, in which case we may for a moment catch glimpses of the bear party, profiting from the losses of so many others. But even in "normal" times, the ever present struggle of bears and bulls churns prices endlessly, distributing losses and gains by the results of their strategic interactions, large and small.

Capital is wealth seeking augmentation, either bullishly, by owning assets expected to appreciate or generate income; or bearishly by owning liquid assets or short positions so as to capitalize on falling prices to buy at a discount and thereby profit. Most people easily imagine the bullish capitalist but seldom imagine how often bearish capitalists profit from others' loss.

Capitalist Crises

Capitalism has two varieties of crises: rampaging bulls and ravenous bears. A bullish crisis occurs when credit is being issued in excess of the increase in social output so that the prices of some things must rise. Exactly which prices rise the most matters a lot for the dynamic of the crisis, but this is ignored in standard economic textbooks that treat the price level (like the money supply) as a single distinct thing measured by the consumer price index (CPI). Economists lose so much by obsessing on gray averages instead of appreciating the extremes of credit polarization. If credit expansion is particularly in the form of broker loans, a bubble in stocks results. If excessive credit is issued for real estate, housing bubbles occur. If excessive credit is extended to government, then prices of whatever government buys will inflate and bonds (the main form of government financing) will be depressed in value. The dynamic of every inflationary crisis depends on the specifics of credit.

A bearish crisis is the opposite. Credit is curtailed, leading to falling prices and failing businesses. The bears then buy the assets of others at a discount. Any significant restriction of credit, whether by public or private agency, is bound to cause a fall in the prices somewhere in the economy. As with an inflationary crisis, the devil is in the details. Whose credit is restricted matters a lot for the specific dynamics of each crisis. You can reverse whatever I said in the previous paragraph. If brokers' loans are most curtailed, stock prices will plummet. If real estate lending is restricted, housing prices tumble. If government securities are hard to sell to investors, wars must end and governments cut back their employee rolls. If credit is tight for industrial companies, investment in new plant and equipment dries up. Do not pay attention only to the dull gray averages. Pay attention to the extremes of credit leverage and denial.

Almost everything in taught in economics and everyday popular business culture runs contrary to seeing capitalism as a two-party system. Constant repetition of business news tells as when the economy is good and when it is bad. Economic textbooks teach that everyone benefits from a growing economy. Both are false. No state of the economy and no transition of the economy is good for everyone or bad for everyone. Most people who get rich quickly do so because they know how to profit from others' loss, as Jesse Livermore did. Interests able to cause others to lose are in the greatest position of power.

Interestingly, this is why labor unions were powerful, at least during the height of industrialism. They were (and still are) most powerful in heavy industries where large quantities of physical capital require constant employment to service the debts undertaken to purchase long-lasting capital equipment in such industries as railroads, shipping and ship-building, iron and steel, chemicals, and oil refining. If workers can organize a disciplined union, they can raise wages by threatening to strike, to stop the flow of production. Debt service must continue, but income stops. The capitalists who are most indebted, often those who procured the most long-lasting physical capital, must surrender first. It pays for them to buy labor peace with higher wages rather than risk debt service without income. Conversely, in labor-intensive employments where less capital is committed per worker or committed for shorter times and thus less in need of long-term financing, unions are weaker. Even dynamics of everyday class struggle are not fully comprehensible without considering credit.

Banks and large financial institutions enjoy a particularly powerful strategic role in the economy because collectively they control the main sources of credit. Credit power is the power to advance or deny credit. Economists have created the myth that credit is allocated by markets. In fact, credit conditions are influenced by markets, especially the secondary asset markets for bonds and bills, but every individual credit decision is a moment of power for the potential creditor. The decision to advance or deny credit is probably the greatest power in the world today, binding even governments.

Economists claim the credit decision is market determined because, in their theory, any potential borrower refused by one creditor can get credit from any other if they are fundamentally credit-worthy in the first place. If the credit business were like the restaurant business, perhaps this would be true. For some small, retail-level loans, perhaps it still is. But the credit system is a pyramid. At its top, where truly gargantuan deals are negotiated for issuing credit to governments and large corporations, credit allocation is by cartel, not by free market. These largest deals also influence the decisions of so many lesser institutions that they can have a broad impact on the direction of the economy as a whole. If credit is curtailed at the top, large institutions can fail, governments retrench, and bull markets crash.

I have researched the activities of leading investment banks using the bankers own papers, including such famous institutions and families as J. P. Morgan & Company and the Rockefellers. I have studied the research of others into major investment houses, such as Ferguson's (1998 and 1999) useful investigation of the House of Rothschild and much more. I have also examined in detail the credit conditions and strategic actions of creditors during a number of major economic crises through history. Some of that research has been published; more will appear in my next book, *Finance, including Private Power and Strategy*. What I find in every crisis is that there is a moment, which Keynes calls a culminating point, when bears and bulls have built up opposing positions, often quite rapidly. One side or the other will profit quickly or lose big, like a decisive battle in war. At those moments, as in routine times when large loans are syndicated, the opposing parties are organized, and the generals of finance are typically identifiable strategists whose intent is comprehensible, whether they win, lose, or withdraw to fight again later.

Routinely, large loans are nearly always syndicated. This has been true for centuries. Each syndicate typically has a lead bank that negotiates the terms of the loan with the debtor. Most often, large loans take the form of bond issues, though they may be structured in various ways. The lead bank also allocates shares of the loan among the syndicate of participating creditors, much the way a cartel allocates production among its members to restrict output and raise prices. If the loan takes to form of a bond, typically the lead bank offers the issuer of the loan, the debtor, a percentage of the face value of the bonds that is often in the 90s, say 92. The lead bank then offers the other syndicate portions of the loan at a higher price, perhaps 93. This gives the lead bank a 1% profit on the entire loan amount. The syndicate members then call their most favored clients, either rich investors, institutions or brokers, offering shares of their share at a higher price, say 94, yielding a 1% profit to every syndicate member (and an additional 1% to the lead bank on its retained share). After this initial allocation is made, the initial public offering (IPO) to the public begins. Only at this moment do markets start to function, as brokers and other initial recipients of the bond offer some or all of their share on public markets. If the lead bank did its job correctly, the bond is initially a little bit underpriced, so that the price jumps up during

the initial hours of public trading, let's say above 95. If the issue is successful (most are), all the bonds are sold at a profit and the syndicate members and their initial clients make a quick and reliable return. Financial systems routinely reward all inside players with rich and reliable profits.

Economists will object that if this were true competition would soon bid down the fees earned at each step of the IPO, because others could offer this same service for less and thus take business from the greedy cartel, or, as it was called in the Progressive Era, the Money Trust. The reason this rarely happens with the largest loans is that there are very few banks that have the capability of floating large issues. Often most or all of those competent to participate are invited into the syndicate by the lead bank, in which case there is nobody on the outside to turn to. New banks cannot just form willy nilly and offer to compete in the same business, because starting from nothing they lack the trust of a large network of brokers, dealers, investors, and corporate clients to gain the confident of a potential issuer. Furthermore, if a prominent lead bank rejects a potential debtor as too risky, or offers them a low price for their bonds (thus a high interest rate), outsiders might be reticent to take the business, even if their judgment of this potential borrower is not as harsh as the lead bank. Lead banks have credibility in financial circles. If they say no to a loan and somebody else takes it up, lead banks have every incentive to prove they were right to refuse it. Proving that includes dissuading their own clients from buying it and releasing negative news about it to the press. These are not just suppositions on my part. I have seen evidence like this in archives.

For example, if a large European country, say Austria-Hungary or Italy, wanted to float a loan during the nineteenth century, and it was turned down by the House of Rothschild, the leading bank of that time (actually a network of family banks), the country might approach another bank, but that bank would immediately ask why the Rothschilds bowed out, and scrutinize the borrower very closely. If the loan is issued, it would be at a considerably higher interest rate. Almost by definition, any business that is good business goes to the top bank first. If it is refused by them, it is for that reason alone seen as inferior. The credit system is a pyramid.

On the other hand, I have emphasized that capitalism is a two-party system, so how can credit be organized only into a single cartel? Often there is a dominant set of banks, who work together in syndicates, and also rival groups expanding credit more aggressively and lending to riskier customers turned down by the biggest banks. In other words, finance often polarizes into bears at the top and aspiring bulls just beneath them. During growth times, these bulls might ride a wave, financing risky new industries, bullish fast-growing companies, and aggressive investors piling into bull markets. Often such bulls profit conspicuously, until the inevitable credit-tightening and crash. I have not the time or space here, but prior to almost any major crisis in history, I can provide at least an initial sketch of who were the bears and bulls and how they staked their fortunes.

I briefly mention four examples, one from each recent century, to hint how this sort of analysis proceeds. The greatest crash of the eighteenth century was the collapse of the Mississippi bubble in France and soon thereafter, the South Sea Bubble in Britain. John Law in France and John Blunt and other British projectors who promoted the South Sea Company were the leading bulls. The Bank of England and a group of Amsterdam financiers were the leading bears. The worldwide Panic of 1873 began as the Rothschilds financed the replacement of the silver

standard in Germany, France, Italy and several other countries with a more bearish gold standard. This was also the single most profitable year for the Rothschild banks. Many other financiers, farmers and industrialists favored the more bullish silver standard (officially, bimetallism). This issue was also at the forefront of American politics for most of the last quarter of the nineteenth century. During the Panic of 1907 the bulls were financed by the new, less regulated trust companies, whereas the bears, led by J.P. Morgan, eventually clipped their wings and decided which to save with new injections of credit and which to abandon to bankruptcy. As the financial crisis of 2008 approached, most of the large investment banks were bullish on securitizing housing loans, but J.P. Morgan held back. When Goldman Sachs joined it in the bear camp, the tide turned and many of the bulls were effectively bankrupt, although the government saved some. Each of these deserves, of course, very extensive analysis, but the method I outline here illuminates them all. Both camps are organized and act strategically.

Capitalism must necessarily have a business cycle because the temptations of leveraged growth are too great. There will always be capitalists eager and willing to borrow at 4% to earn 5% in whatever venture. As long as such returns are possible, the greater the leverage, the greater the profit. But debt creates vulnerability as well as opportunity. The higher the leverage, the more likely a position will fail when credit conditions tighten, interest rates rise and it might no longer be possible to rollover loans that once seemed routine. Many bulls are bankrupted in each bearish crisis and often taken over by their bullish rivals who have maintained liquid reserves while the bulls borrowed heavily. Most dangerous for the bulls, it is often the creditors at the top of the system who first turn bearish, in their own interest, to prevent inflation from undermining the value of their financial assets denominated in fixed money terms, such as bonds, mortgages and currency. Bulls and debtors prosper from inflation. Bears and creditors do not. Because every capitalist system constitutes powerful bear and bull interests at the heart of the credit system, strategic competition will necessarily create a business cycle. The more extreme the debt leverage, the greater the crisis potential. In the long run, the only equilibrium of sorts is the ever-shifting balance of power between opposing interests. The capitalist antidote to a frenzy of bullish greed is a cabal of bearish greed.

As important as the expansion and contraction of credit is for capital formation and economic dynamics, the impact of credit is still constrained by real social production. Credit does not directly produce anything, though sometimes it is useful to mobilize otherwise idle resources, beginning with my first example of the ox. But no matter how much credit is created, there is only so much total output to distribute. Financial assets, being paper claims, can be multiplied rather profligately, but for their value not to collapse, their owners must gain more and more real share of society's output as income on these paper assets. Thus the share of output available for non-owners, including workers and the middle class, must diminish to sustain an asset boom. Inflation of consumer prices faster than wages and salaries is one way to suppress demand from ordinary consumers to enable wealthy investors to claim more and more. Sometimes people do not see their own income falling, since it may be disguised by small wage increases for seniority, but newly hired employees may net less and less real income. Since redistribution of income today often occurs via the price and credit system rather than directly at the workplace (except in crises situations, like Greece), many people are unaware how differential price inflation and the diversion of capital into financial speculation may actually make them poorer. Though of course,

many do suspect that the ballooning wealth of the top one percent is at their expense, they might not understand the mechanisms of redistribution.

Neoclassical economics starts its analysis with consumer choice, also known as consumer sovereignty. Thus it seems that the economy exists solely to satisfy consumer desires. Actually, consumer power is largely inert and entirely nonstrategic. The real sovereign power in a capitalist system lies with the capitalists, especially nowadays the finance capitalists who are the principal purveyors of credit. Their decisions decisively influence the direction of new investment and price levels. However, no one capitalist clique manages the entire system, nor does the state. Instead, such a credit-driven system guarantees that contending forces must exist, often polarizing, especially at culminating points when the business cycle is poised to change directions. The strategic interaction of contending capitalist blocs determines not only average consumer prices, but also the prices of assets, whether they bubble upward or crash. The effects of interacting forces are complex, typically covert, but not indecipherable. One must only start to look.

References

Bagehot, W. (2001[1878]) *Lombard Street: A Description of the Money Market*, Kitchener, Ontario: Batoche Books.

Ferguson, N. (1998) *The House of Rothschild: Money's Prophets 1798-1948*; and (1999) *The House of Rothschild: The World's Banker 1849-1999*, both New York: Viking.

Ferguson, N. (2008) *The Ascent of Money: A Financial History of the World*, New York: Penguin.

Fisher, Irving (1933) "The Debt-Deflation Theory of Great Depressions," *Econometrica* I: 337-55.

Foley, Duncan K. (1986) *Money, Accumulation and Crisis*, Newark, NJ: Harwood Academic Publishers.

Homer, Sidney; and Sylla, Richard (2005) *A History of Interest Rates*, 4th ed., Hoboken, NJ: Wiley.

Keen, Steve (2011) *Debunking Economics: The Naked Emperor of the Social Sciences*, 2d ed., London: Zed.

Keynes, John M. (2011 [1930]) A *Treatise on Money*, Mansfield Centre, CN: Martino.

Keynes, John M. (1936) *The General Theory of Employment, Interest and Money*, London: Macmillan.

Kotz, David M. (2015) *The Rise and Fall of Neoliberalism*, Cambridge, MA: Harvard University Press.

Kotz, David M.; McDonough, Terrence (2010) *Global Neoliberalism and the Contemporary Social Structure of Accumulation*, Cambridge and London: Cambridge University Press.

McDonough, Terrence; Reich, Michael; Kotz, David M., eds. (2010) *Contemporary Capitalism and Its Crises: Social Structure of Accumulation Theory for the 21st Century*, Cambridge and London: Cambridge University Press.

Minsky, Hyman P. (1982) *Can "It" Happen Again?: Essays on Instability and Finance*, New York: M. E. Sharpe.

Neal, Larry (1990) *The Rise of Financial Capitalism: Financial Markets in the Age of Reason*, Cambridge: Cambridge University Press.

Nolt, James H. (2015) *International Political Economy: The Business of War and Peace*, London: Routledge.

Samuelson, Paul (1951) *Economics*, 2nd ed., New York: McGraw-Hill.

Samuelson, Paul (1973) *Economics*, 9th ed., New York: McGraw-Hill.

Smitten, R. (2009) J*esse Livermore: World's Greatest Stock Trader*, New York: Wiley.

Turner, Adair (2015) *Between Debt and the Devil: Money, Credit and Fixing Global Finance*, Princeton, NJ; Princeton University Press.