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MONETARY ESSENTIALS

Revealing Proven Insights

***“I’m tired of seeing government spend money it doesn’t have—
to fix problems created by people spending money they didn’t have.”***

...Viewer of ABC News

Previous by Author:

THE U.S. DOLLAR AN OWNER’S MANUAL

SOCIAL SOVEREIGNTY

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Introduction

After the onset of the Great Recession, deregulation was widely and correctly identified as the source of the financial imbalances that culminated in the 2007 crises. To avoid misunderstanding regarding this statement it should be seen that effective regulation occurs from forces outside of the purview of government by the forces of competition and market based choices. Most of the regulation and governance of the economy stems not from the proactive legal and political institutions but from market enforced discipline. Regulatory ineffectiveness resulted from the legal environment erected in the name of certain of those institutions, both deliberately and unintentionally.

Layering of more regulatory legislation with the intention to prevent future economic excesses is the usual reaction to economic crises and distress. Some of the September 2008 policy actions have been defended as an emergency tool, such as the shoring up of the depository collapse that might have culminated over only a few hours in a loss of trust in financial accounts and the freezing of the electronic payment system.

Allowing depository institutions to be legally protected from the consequences of lending the money that depositors expect to be held in trust produced a gaping chasm in liquidity. It was necessary to back up those deposits immediately or face the all too possible breakdown of the payment system along with a cascade of disruptions. But less understood is that given the gradual erosion of bank liquidity and decades of credit inflation, such monetary expansion created unstable conditions. Funds resulting from artificial leverage were not costless just because they could ultimately be backed by emergency FDIC-Treasury assurances. Infusion of money into an economy, is an equivalent loss to non-recipients, a tax on the public at large, with precisely the damage

that a counterfeiting cabal would effect. The process has been responsible for reducing the dollar to less than a tenth of its value over the post WWII decades. The damage was already a fact before the crises.

Unfortunately the other policy fixes after 2007 resulted in unprecedented Trillion dollar financial flows propping up some of the culprits themselves, especially in those sectors that were erected on top of all of the phantom credit base.

Economic propositions, strictly speaking, relate cause and effect. They need not imply that any policy should or should not be instituted. One could demonstrate a clear benefit to the economic output by increasing one tax rate and reducing another without thereby making a judgment that it should be carried out. One may want to reduce the output of the economy; one may dislike people altogether and hope their economy collapses. But the economics would not be any different. Like geometry, for a given set of assumptions you get a given result.

In practice normative political views in discussions of the economic policies of the day are seldom avoided. The main theme in any textbook on macroeconomic theory revolves around application of theory to governing the economy by overriding the market through implying macroeconomic policy for specific normative outcomes such as increasing employment.

However, the economics of a policy action is invariant to interpretations of the advisability of its implementation. The economics must be logically consistent nevertheless, just as a proof in geometry is or is not correct.

Others have taken the road of engaging and participating in government to accomplish social ends. It is hoped that the tone of this book is not taken to detract from these laudable efforts by fellow travelers, or to conclude any intolerance to their own interpretations of events different from those cited here.

While others looked for the source of social problems in corporatist power and hoped to use state power to interpose corrective measures, there exists the alternate view that first one had to prevent unnecessarily instituting state (coercive) power to

avoid attracting capture by private interests; and that, contrary to established opinion, compulsory government was not the best means of collective or social cooperative action.

Another way of describing free markets is freedom to make exchanges with other people. Here the fact that no exchange takes place without ex-ante perceived benefit to both parties implies a system that results in a larger pie, not just a way of dividing the pie.

Authoritative regimes tend to foreclose on the ability to employ that great leveling force of competition. It can be demonstrated that ordinary people can associate in innovative ways effectively and efficiently through the market to supply their needs. Examples of unplanned emergent order abound, from common law, to the development of mathematics, to the rules of golf, to insurance. These resemble the results usually attributed to government, but which upon examination need not be. Such social (in contrast to political) organizing emerges under freedom of choice. But benefits are not seen at first glance, it is mentally easier to visualize that a new legislated or decreed law will do the needed work.

In our look at the economy the economic ideas of less well-known perspectives including Marxist, Georgist and Austrian will be employed to assist explication.

In brief, Marxism never broke out of the pre-marginalist classical economics that explained price by classes of commodities and saw the source of value to be productive effort (ultimately labor) instead of desires of the user or consumer.¹

And followers of Henry George, in maintaining that just title to land (and natural resources) should reside in the whole of mankind, was in favor of taxing exclusively land and nothing else (hence the single tax), while for expediency, allowing titles to remain in their present hands, with structural improvements such as houses and buildings to be free of taxation.

¹ Keeping in mind, as George Reisman (1998) revealed, production costs as well as marginal utility both determine market prices, a Classical insight under-represented in modern marginalist price theory.

However, taxing the entire imputed rent from land, which was the Georgist ultimate reduced-state position, while viable may neglect beneficial allocation and coordination provided by entrepreneurs, possessing foresight of changing land values in a changing world with uncertainty. Georgists widely opposed market intervention by the state elsewhere for good reason, yet championed empowering the state with an absolute public claim on resources and land.

Even so, some writers applied Georgist oriented ideas to revenue neutral tax reform without moving closer to or further from the free market. They assigned a leading role to land value cycles in the business cycle with valuable insights as to why.

In balance, Austrians supplied more developed answers to shortcomings of classroom neoclassical theory. Good ideas were too often overlooked, or were in need of repeating, both the Georgists and Austrians applied methodological individualism. Geo-Austrians synthesized both.

To be clear, Austrian methodological individualism translates to a micro rather than macro approach to economics, but does not deny the cautious use of aggregates and averages in analyzing macroeconomic phenomena; nor does it deny the reality of public or collective interests and actions when carefully defined as individually based.

Here remains the essence of the debate over financial regulation in the aftermath of the Great Recession of 2008.

Our inquiry draws chiefly on the economics of Böhm-Bawerk, Mises, Hayek, Rothbard and Reisman, which comprise the core of Austrian economic theory. We will highlight some of these, along with others, to shed light on our economic future.

While it is not possible to forecast timing for economic events, it is possible to eliminate some unlikely outcomes, and to elevate others through consistent application of causal logic.

Conventional following in economics saw a need for a central bank and government management of the economy to moderate fluctuations in economic activity. We can now examine this prop-

osition by considering the free-market and free-banking perspective.

In 1913 Congress established the Federal Reserve System (Fed). As a central bank it was purported to moderate what seemed to be naturally occurring financial crises. But now the evidence is in: prior to the centralization of the control of money and banking by government intervention these occurrences were not prolonged or as severe as after 1913. Under the Federal Reserve we have experienced a Great Depression, suffered the stagflation of the 1970's, a recession in the early Eighties, and now a financial panic and Great Recession beginning in 2007.²

Some critics of the Fed have proposed turning over the power to expand the money supply to the Treasury, out of the hands of the Fed. While thereby limiting control by the Fed (a quasi-private institution) we will see that this is no substitute for a true market disciplined monetary system based on free banking and dollar convertibility.³

In considering capital and monetary policy stimulus in the post-crash economy we can surmise that the reason that the Fed can't rescue a collapse by inflating liquidity is that this money would go to short term investments. This could produce a steep positive yield curve (short rates lower than long rates).

Market sentiment is different once the boom has collapsed. The economy tends to seek short term liquidity and avoids investing in long horizon projects.

²Federal Reserve Chairman Ben Bernanke attempted to make a case blaming foreign savings for contributing to the recent equity and real estate bubbles in the U.S., but, economists (e.g. George Reisman) have demonstrated, not only were these sources of funds insignificant when compared to bank credit expansion from the mid 90's on, they aren't transitory in their effect as is artificial credit.

³ (Mises [1912] 1971 and Mises 1966) Mises's treatise on money was used as an economics text on the Continent. Mises, in 1922 was called on by the Austrian chancellor for his expertise in monetary policy to successfully remedy what remains a historically defining period of inflationary crises in Europe.

Unlike a credit stimulated boom, inflation in short duration investments and deflation in longer-term investments occurs. Investing in longer term instruments of a financial nature may not be investment in capital or business ventures. Hence it may fail to help employment that could be aided in a faster turnover of capital; the effect is similar to the Keynesian liquidity trap early in a correction.

Quantitative easing, without more saving and improved business outlook, is like pushing on a string. So in 2008 the attempt at stimulus was ineffective. Note that by 2015 long term rates were coming down as the stimulus took effect in longer duration investments.

Eventually the effect of lower interest rates and easing for longer-term capital has its effect. The 2014-15 slide in oil prices reflected longer duration investment in capital intensive projects in oil infrastructure having been overstimulated by low interest rates in preceding years stimulating over-production of oil.

But this blunt, massive provision of investible liquidity and credit in the capital markets from quantitative easing inhibited recovery in other sectors by redirecting resources into investments not chosen by market signals.

When the economy is most slack in labor usage, capital would be more remunerative in types of enterprise that takes advantage of this slack. For example in the labor intensive cultivation of berries—requiring financing to hire labor with little financing for fixed or durable physical capital. In contrast is the cultivation of barley, on identically fertile plots of land, in the same region, that uses little labor but large-scale machinery (Mason Gaffney 2009).

Where both would generate similar profit rates, the former uses a much higher mix of labor with physical capital, but with both using the same amount of funds.

In this example, directing funds to sustain the less labor intensive enterprises that were predominant before the crash directs land usage and funds away from the techniques of production that relieves unemployment and towards those that tie up funds in long-term capital equipment. The policy of replacing older au-

tos, requiring more labor using maintenance than new replacements, was exactly the wrong policy for reducing unemployment.

Can any central planning committee do, by what Hayek calls the fatal conceit, what the market can do by the miracle of price signals? Do we even know where these policies have gone wrong other than that unemployment and economic malaise have been inordinately prolonged?

It has been thought that if the end of a period of lowered interest rates caused the cessation of expansion and boom then logic would argue in favor of reinstating low rates to correct the recession. The reason that a low interest rate cannot return us to the boom of the expansion is that the expansion was a period of ongoing ever-worsening alignment of complementary productive processes, elevated measures of misdirected employment, GDP notwithstanding.

Austrians have emphasized the folly in thinking of the economy as either enjoying more or less economic activity. Their more sophisticated chain of reasoning complies with common sense. We can consume capital on the one hand and invest in the wrong capital projects on the other. Each of these may elevate measures of current GDP; but each of these subtracts from the ability to deliver supplies of usable goods and services in the future.

The correction not only must re-value these misappropriations, but it must liquidate them at a loss and terminate whole enterprises the most out of line with balanced production. The workforce must be relocated and retrained.

A community could begin a project to build a tunnel to access what requires a difficult journey over a mountain. It could employ plenty of engineers, train workers in demolition and excavation, and invest in heavy equipment. But if halfway through the mountain the community runs out of the means to support its workers, then when they go back to their original activities they have nothing to show for their work and are worse off from having depleted their resources. Yet, while engaged in the project they were experiencing a boom in employment and economic activity. Their economists said they were on the right track because they en-

joyed a high level of aggregate demand, but they were misled because the authorities dispersed provisions at a rate that depleted granaries faster than they could be supplied. The Austrian Business Cycle Theory contains similar insights regarding easy credit upswings in the economy.⁴

⁴“It is true this theory suffers from a serious disadvantage: it is so much more complicated than the traditional monetary explanation. But I venture to say that this is not the fault of this theory, but due to the malice of the object.”(Gottfried Haberler, 1932, 64).

Part I

Our Economy

METHODOLOGY

Strong statistical correlations between facts and outcomes have been misinterpreted. The population of people who spend more has a high correlation coefficient with those who are wealthy. But we know that one does not become wealthy by simply increasing his/her spending. Yet precisely this reasoning is employed by economists who subscribe to the consumptionist fallacy that finds the cause for prosperity in consumption. Here economic logic is needed to sort things out. We will see how understanding that the transaction between buyer and seller of final goods while 70% of final aggregate output, is only perhaps 40% of total economic activity. A structural model of the economy allows for such a deduction. It reveals that diverting spending from consumption to investment spending aids in the growth of output over time, a logical outcome.

Of course in mere logic there is treachery. There are an abundance of superficial causes proposed to explain movements in variables such as GDP, credit conditions, standards of living etc.

Indeed, we may have more to go on than in the physical sciences that only have inanimate objects and data to observe. We know that people act employing means to achieve ends. Fruitful analysis starts with knowledge about real individual people, their subjective assessments, motivations, quirks, etc. True, we acquire behavioral understanding about market participants inductively;

we employ certain self-evident attributes arrived at by our life experience. But the analysis goes from (known) cause to effect.⁵

Applying insights deductively, for example, leads us to derive general propositions about money as a means to relieving human needs.⁶ As we will see, dramatic changes in subjective preferences for money (demand for money), usually initiated by policy actions controlling trends in money supply growth, may cause such dramatic events as a boom ending in hyperinflation or a bust ending in hyper-contraction or deflation.

Our approach avoids sterile equations or equilibrium assumptions that too easily ignore the human element in our most basic unit of analysis. We are aware that economic participants never enjoy certainty of knowledge, and that there are therefore uneven and unpredictable periods of adjustment. At the same time we see that the free market out performs centralized command systems, even though absent perfect competition or perfect knowledge. Lack of these artificial constructs or hypothetical conditions of perfect competition or perfect knowledge in no way diminishes the viability of the free market process. Markets can be perfectly rivalrous without meeting the artificial criteria of perfect competition, hence, contrary to received doctrine, absence of a multitude of competitors in a market is no indicator of market failure.

Economics has been characterized as the *dismal science*. We might all agree to this characterization, not because of the famous but only narrowly applicable Malthusian fear of population pressure keeping the masses at subsistence, rather because reality makes us face the need for work, to seek information, understand markets, exchange etc. to gain what we don't have. Economics makes use of the fact of scarcity. Economics is about scarcity.

⁵ This causal realist methodology has been well defined by Ludwig von Mises (1949), and (1957).

⁶ Note that we are not talking about strictly material needs, or *homo economicus* "economic" man, but man who has the capacity to choose even non-material or non-market valued ends.

Economics is a discipline that begins with human actions and interactions; physical sciences study inanimate objects. Attention to what is already known in a science of acting groups and individuals allows economists a head start compared to physical scientists. Inquiry starts with the unknown when it comes to the behavior of units of action such as atoms or molecules. In the physical sciences the laws of behavior must be discovered by experimentation and observation of regularities. But in economic science we know that behavior is purposeful in actions undertaken by people. This allows for starting analysis not at the rudimentary physical level of the world of inanimate objects but at a human level, a social level. Baseball can be understood much sooner if we already have insight to the rules of the game, than if we start out trying to discover the rules only by observing regularities in behavior. In economics, unlike the physical sciences, we can arrive at useful precepts more readily through deductive rather than by inductive investigation.

Models need to be internally consistent logically, with realistic assumptions. As in geometry, axioms lead deductively to contextually useful propositions. A good theory may only apply to one period or set of events, it may be relevant in one case and not another. But we should not expect to arrive at a theory from looking at or testing against the data available.

MONEY INFLATION

Under conditions of monetary inflation, the newly injected money flows in a systematically uneven manner through the economy. The first recipients of spending, limited in number, face uninflated prices. The majority of people experience little initial effect from the spending stimulus only to later face prices bid up to their disadvantage. Think of counterfeiters spending new money. Each of the rest of us loses just a little as they gain what we lose. We will see below how credit expansion distorts business growth from a sectoral standpoint.

Under monetary inflation markets adjust imperfectly. Expectations involve lags. It is like getting a train up to speed. Rising prices reduce the value of money balances. Asset prices rise to accommodate eventual falling desire to hold money balances (as demand for money falls), and credit expands generally. It is an uneven dynamic process, the net result of which only later is revealed as a negative-sum game. Bubbles can develop. Rising asset prices, such as real estate, equities and commodities, also signal owners and prospective owners that the trend is up; these price increases can outstrip the general rise in prices. Asset owners, due to wealth effects tilt their spending habits more towards the luxury end of the spectrum. Against the incentive to continue investing is the “rise in prices of complementary factors of production and the rate of interest on the loan market.”(Mises, 1966, 586)

Over time risk averse behavior tends to diminish as the memory of the last crises fades. It is impossible to separate out the degree to which monetary easing spurs these effects. What can be concluded is that unnecessary policy stimulus from outside the market contributes to exacerbating the boom cycle. There is a balance. Advanced economies must make use of reasonable levels of trust and confidence in financial transactions, for credit availability, long-term loans to business etc. Without such a vehicle as general price inflation (an attribute of central bank fiat money economies), the spreading of euphoria throughout the economy must depend on the unlikely occurrence of an entrepreneurial *cluster of errors* (Robbins, 2007, 31).

During monetary inflation, as prices rise unexpectedly, perceived rates of profit rise also as the margin between earlier purchasing cost and later revenue increases. Incentives for accumulating commodities, inventories, and for leveraging ownership of assets such as real estate also follow from rising prices. Finally the buy/sell price differences adjust, as relative price disparities subside; a reversal of these artificial gains occurs even without the need for any price deflation, but only with a leveling off at a higher level in general.

Mises masterfully detailed the processes of monetary expansion. Often overlooked was his insightful reference to the lack of awareness on the part of bank lenders and central bank authorities that interest rates continue to be too low even after they turn back up in the beginning of the boom. They are low because the premium attached to the interest rate lags the increase in actual price inflation. Real rates are lower than observed rates. “Money” remains “easy.” Some of the boom distortions are not reversed but extended inadvertently. (Mises 1966, 551). When considering that the higher profit rate just mentioned increases real rates, then there is even more of a disparity between the observed interest rate and the targeted lower rate (Reisman, 1998).

Thus gradual money inflation that caused gradual price inflation sets the stage for asset booms and busts. The resulting secular value erosion of money holdings elicits a search for alternative vehicles easily convertible into money. The extended credit market contraction after 2008 can be seen as a result of decades of inflation (more than 90% dollar depreciation since WWII). This constitutes more than adequate evidence of the difficulty in hierarchical management versus the discipline of consumer choice in money.

CREDIT

Credit transactions allow for present use of a good or service, or money, in exchange for a promise to return to the lender a future equal value that includes a payment for time preference (interest). Each side expects to reduce his/her present/future allocation imbalances. Sometimes business activities require more credit, sometimes less. Elasticity and diversity of credit availability characterizes a well-functioning economy.⁷

⁷ The Real Bills Doctrine held that bank credit should be confined to collateralized bills that would represent loans for goods in process for 90 days or less, to be extinguished when the good was marketed. Following this principle a mortgage also has economically similar properties. Both are collateralized loans and as such both are subject to the risk of loss in the future value of the collateral, although the level of risk may be

In addition to credit expansion carried out by policy, expansion of the volume of financial assets results when a person or corporation shifts more funds into less liquid investments (such as stock equity or real estate and mortgages). Funds may have shifted out of more liquid assets such as currency, bank accounts or CDs. Again, extension of credit and/or financial assets usually stimulated by easy monetary policy can be undertaken by the private sector as investor confidence grows over time. As we have seen this can be characterized functionally as a *decrease* in the demand for money, or from another perspective it could be said that the public expands its subjective comfort level as to what constitutes liquidity (money) to include a mix of near monies, or even include money attributes of almost any asset. Transferring checking account funds into savings and loan accounts or other non-bank thrift institutions is referred to as a form of intermediation.⁸ Thus the functional supply of money can expand.⁹

Unsustainable asymmetric distortions in the production structure result from the easy credit conditions and uneven infiltration through the spending chain. Price increases are inhibited by non-uniformly distributed long-term contracts, rent agreements etc., retarding forces of adjustment.

As with money, credit assists in moving the economy closer to a state of abundance and reduced dissatisfaction. Credit existed even before a money economy. One could grant credit in a barter economy. Credit assists market exchange over time.

Under the assumption of perfect knowledge, forecasting errors (by definition) don't exist and credit defaults or contractions would be a thing of the past. In our world of imperfect knowledge the extension of credit bears default risk.

different. Mises revealed that bank policy of lowering loan rates will encourage credit expansion through all of these channels (Mises, 2006, 103ff.)

⁸ Technically such shifts out of desire to hold money never reduce the narrowly defined supply of money (M1); rather they transfer ownership of money and increase the prices and or amount of other credit or real assets. An individual financial institution that loses deposits faces *disintermediation*.

⁹ Financial institutions innovate work-arounds (regulatory arbitrage). Collateral rehypothecation amplified leverage from securitized mortgages, for example.

CREDIT CONTROL

Expanded credit infuses through various channels and mechanisms outside of the purview and control of authorities. Even under the best of regulatory regimes an attempt to control credit resembles attempting to keep floodwaters out when only some of the levies work. The flood still occurs at full force unless levies are improved to 100%. Credit will find a way to flow from creditor to debtor so long as each perceives profit to be made. For example, real estate was financed through owner financing outside of normal channels in the 1980's when mortgage rates were 16%. More recently, banks in the euro zone, under greater strictures for mortgage loans than in the U.S., managed to get record credit out to business despite greater European loan restrictions. Consequently, in early 2009 corporate debt in Europe was at 95% of regional output as compared to the U.S. corporate debt at 50% of GDP.

THE BUSINESS CYCLE

Think of a particular investment in a large shopping mall, only economical if continued low cost financing can see the project through to the more distant future point of final use. Initial funds are made plentiful through easy money policies, such as quantitative easing (i.e. money supply increases) or lower interest rates, only consonant with an elevated rate of saving. But the economy actually has lower savings than the artificially distorted signals of easy credit indicate. As the economy eventually adjusts to the actual lower saving rate, the stream of new credit is deflated over time as prices in general rise.¹⁰ Then without the continuation of the easy credit supply the mistakes become evident. Liquidation of specific malinvestments set off secondary spending readjustments. Real losses to the economy are revealed. Some projects have to be abandoned half completed.

¹⁰ As we have seen above Mises noted that bank credit policies can continue expansive as market interest rates fail to incorporate a price premium as prices begin to rise. Price expectations are known to experience lags of sometimes a decade or two.

The redirection of resources can't be sustained; these (factor) income recipients' spending to saving ratios have not decreased. So funds from savings flowing back to the loan market are inadequate; funds from artificial credit expansion are self-limiting as increased prices in productive sectors deflate the corresponding real values. The policy induced credit levels falter; spending in the earlier capital demanding stages falls back to pre-credit-expansion levels forcing back down factor incomes and employment in those sectors.

Although spending has fallen in the higher (earlier) stages (e.g. auto component suppliers, building suppliers), factor prices in these lines, wages especially, don't fall so easily. Resource prices or commodity prices can fall (for example crude oil fell from \$140 per barrel in 2008 to its early 2009 price of \$40), inflated land values fall much less easily. Only after comparable properties have had to be sold from distress do owners capitulate. This takes months or even years. Labor also adjusts slowly. Total wages may fall but the wage rate only falls after reality sets in. During the Great Depression wage rates (not total wages) rose as unions became more powerful. Credit collapses occur much faster than booms, but readjustment takes time; as markets fail to clear the result is unemployment and idle capital and resources.

In the downturn confidence in financial assets falls. Deleveraging of investments occurs. Now, before the economy can get back on its feet (i.e. before supply and demand can clear at the lower prices) spending falls generally due to feedback loops, which in turn produce general reduction in demand and further sets the market clearing wage rate even lower. Housing and other assets that were overproduced now face demand lower than pre-expansion levels in a spiral downward. Unfortunately at this time simply stimulating everywhere, fails to allow for the needed relative corrections. This fall in spending is a breakdown of the boom era market. This downturn is no simple increase in the demand for money or drop in the supply of money with consequent deflationary discontinuities. Take housing for example: if too many houses were constructed over the last ten years of the boom pe-

riod, this bubble can't just be liquidated. Not until the prices for houses fall considerably will there be any demand for new construction. It's not a matter of putting more money in the hands of the public; it's not a simple case of inadequate aggregate demand. The speculative element in land becomes superimposed, the more so due to its inelastic supply that creates unsustainable costs in the productive economy during the upswing.

Unfortunately orthodox neoclassical economics can't look beyond deficient aggregate demand because the models employed fail to incorporate the structural nature of the economy. Models that use one stage of production to represent producers and one aggregate value to represent capital fail to represent the economy. Economists who model the economy after a retail store commit the error of the fallacy of composition. Spending on consumer goods in the store increases economic activity for that store, helps employment demand etc. Such models fail to note that restraint from spending on a consumer good releases funds available for spending, for example, on upgrades in factories producing products that both reduce cost to the retail store but also provides for additional employment.

Understandably, by 2008, just as economists claimed that the money supply might collapse and so felt the need to increase FDIC coverage, they also feared a collapse in aggregate demand. In the context of our legislatively engineered fractional reserve banking industry, this could have been a reality. But, as we will see, these outcomes bring into question the viability of such a system; the fix isn't so simple. Measures of aggregate spending fall, but most spending is not consumer spending, therefore aggregate demand stimulation can't help restore the economic landscape.¹¹

Economies have a capital structure. A more roundabout process involves diverting present consumption potential to produce capital equipment or undertakings of more capital intensity.

¹¹ See below the discussion on the mistaken use of GDP as a measure of total spending. In brief, GDP measures final additional output, not total spending that includes spending by business on intermediate goods. Thus, while consumer spending may be 2/3 of GDP, GDP is less than half of economic activity.

Stages of production organize in a structure where the higher stages are the most remote from the consumer, such as plant and equipment.

Any positive effect on confidence that this stimulus program contributes to the markets must be balanced against the discounting of present values due to anticipated future tax burdens. By 2009 the markets were beginning to adjust without the stimulus. The general fall in spending had veered away from inessentials such as stylish clothing, coffee shops etc.—while essentials continue to be demanded and produced. In that sense the economy was not collapsing but retrenching. This is a process made necessary by the excesses of spending on instant gratification during the boom brought about by the over-indulgence in debt by the monetary and the financial industrial complex. But, due to policy, by 2010 there was a reticence to embark on projects as the economy faced a higher tax and regulatory oriented future.

Usually periods of expansion are not simply credit expansions. A fall in the demand to hold money balances (or in money demand) expands investment into inventory or asset ownership, not only through lending and borrowing. This is from increased trust in the liquidity or safety of these forms of wealth.

Government spending in aggregate may in part influence higher order stages, but would not be supportive of the same configurations of higher order goods. Other non-stimulated sectors would suffer even more by having factor prices once more bid higher keeping their costs high.

Stimulus spending in areas not seen as profitable by the market results in permanent losses. What is more, any massive borrowing crowds out funds needed elsewhere. On a larger scale this eventually can get to look like one of the disastrous five year plans under Stalin, while, aside from intentions, was doomed to failure. Even an army of bureaucrats will never replicate the coordination of the price system nor replicate market appraisalment and incentives that ownership provides. There are only three ways government can get the money to spend: taxing, borrowing, or printing money, none of which adds new wealth.

Since it is always easier to think in terms of macro-economics, rather than the details of micro-economics when explaining gross economy-wide swings in economic activity, employment etc., effects of changes in profit and the financial climate tend to be thought of in aggregate terms—as if a uniform change in the perceived availability of funding evenly and universally affects all lines of business. The result is the misimpression that the economy has periods of overheating, periods of too much spending in general, or not enough spending in downturns. Thus the misperceived need to have government deficits (borrowing) increase current spending outlays, and the need to have more spending of newly printed dollars to stimulate the economy, even if the long run effect on prices is inflationary; it is thought that because output is falling no harm can come from an expansionist policy that doesn't cause a net increase in prices in the short or intermediate run.

If we accept that the real economy finds itself somewhere in between these two descriptions, that the economy arranges itself to some extent in stages, we must admit of a degree of non-uniformity or asymmetry throughout the linkages. For example, encouraged expansion in any one business or stage has the effect of providing more output to the next stage towards the consumer, and thus lowering supply prices in that direction, while raising prices for the inputs coming from the other direction (i.e. from suppliers to the stage in question in response to increased demand).

The dynamics of increasing money (liquidity) demand also disrupts markets; all prices cannot fall readily, in labor markets especially. When the labor market cannot clear, unemployment results along with declining productivity and disruption of spending patterns etc. Falling prices leave debtors with a greater burden, as loans must be paid back with money of increasing value—further exacerbating loan defaults.

We have suggested that systemic volatility in markets arises from lack of perfect information regarding future prospects for investment profits. Under these conditions incomplete infor-

mation is supplemented by observation of others' actions. A degree of volatility is expected. There will always be periods of confidence followed by periods of sobriety—periods of increasing risk-taking followed by the day of reckoning, but modified by risk aversion and error-learning.

Moreover, funding of municipal revenue streams rely on taxing improvements, labor income and consumption, more than site values. Business expenses increase over time as legislatures churn out more programs, more complicated tax laws and regulatory agencies, more rules and licensure impediments, almost as a function of time rather than any deliberative process.

Legislated intervention from all levels opens conduits of power exploitable by vested interests. But more than that, interventionist policy can unwittingly postpone self-correction by markets until needed adjustments grow too large. Financial institutions evolve in a landscape of guarantees and government underwriting of risk. We have a good parallel in the now discredited policy of fire suppression in managed forests. In both cases intervention created disastrous unintended consequences, as debris (credit) was never allowed to be subject to small fire (market) corrections. Only recently has best forest management policy precluded fire suppression in many wilderness areas.

In effect a de-facto conversion of bank deposit reserves from marginally fractional to a much larger fraction has transpired at the expense of the taxpayer. In that behaviorally, banks and depositors were already functioning as if the deposit were 100% insured or backed, the support action produced no shock to the markets. (We must keep in mind that such backing is only with fiat money promises, with far less long-term security than would have been the case under 100% commodity standard money backing.) For those who see this as alarmingly inflationary it can be noted that such action only confirms or validates the inflationary forces leading to the crash, it need not have portended more inflation after the crash. The damage to the economy had already transpired over the decades of credit expansion.

However, deficits also have costs that affect us more in the present than in the future. First, deficits diminish by some indeterminate amount the present value of wealth due to expectations of compensatory future taxes; they diminish choices for present uses. Monetizing debt contributes to inflation as well.

More significantly what is not seen due to deficits are the near term productive outcomes that would have resulted had the funds not been siphoned out of the normal stream of investible funding. For example, the crowding out of working capital funds. These turn over quickly in small businesses such as restaurants, home care, convenience stores and local shops, services, etc. (labor intensive by nature). The impact is felt in the present. Minimally skilled youth among others most vulnerable to cyclical unemployment absorb the losses irreparably. These jobs need not rise to the status of a long-term career path, but are far superior to the idleness and self-doubt experienced by those turned away when such employment is lacking. John Williams' shadow stats indicates that following the crash effective unemployment was over 20%.

An example of reduced labor to capital ratios occurred under the enclosure acts in Britain. In some cases labor-intensive agriculture was turned to pasturage for capital intensive (sheep) wool production. That constituted a present loss to those displaced. Earlier, afforested land was depopulated for the hunting pleasure of the landed aristocracy. Such engrossment and the later enclosure acts also contributed to the homeless emigrating to cities even though enclosures also included numerous instances of improved land usage by privatizing commons better managed by a single owner.

Hence, lacking free market allocative accountability, infrastructure undertakings too often face the inherent failures of central planning. Some highways go nowhere; some stimulate uneconomic urban sprawl. Expenditures on specific airports, public transport, utilities and highways will be only accidentally appropriate.

Furthermore, publically financed infrastructure projects most often produce a windfall for commercial property owners and developers. External benefits accrue as site-value enhancement. Limiting expenditure decisions to the more civically responsible local jurisdictions, or even better, leaving them up to private industrial parks, retail malls, or private developments (such as Disney World), would result in more affordable land prices because of correspondingly appropriate ground-rental value taxes, or more propitious proprietary site-rental value charges or fees replacing revenue otherwise levied on capital improvements. This would lower development costs and encourage urban infill and blight renovation due to reduced land pricing and decreased idle consumption of irretrievable productive potential in underutilized property holdings such as vacant lots, parking lots or undercapitalized commercial sites. A universal exemption from taxes on improvements (houses, buildings etc.) would have far reaching benefits. Decentralized local control improves uses of limited funds.

Suppose price trends are the important key used by participants in a market to discern future conditions. With increased funds, prices in some sectors tend to be bid higher. Even without increased funds, selective rising price trends alone could be enough to impel speculation on their continued rise for affected sectors. Banks might extend loans for more purchases, secured by existing housing collateral for instance, even more so if moral hazard is elevated by a past history of bailouts.

Economists would say that *ceteris paribus* (other things remaining the same) there was a fall in demand for money. Hence prices could increase without the quantity of money increasing, resulting in an indeterminate duration for bubbles; higher asset valuations may induce wealth effects in spending patterns. Note also that bubbles are more likely to form with money expansion. And subjective valuations obviate any reliable identification of the existence of a bubble, much less of when it might end.

Likewise, contemporary 'equal protection of the law' unequaly protects ownership titles at least to some extent. A simple illus-

tration is privatization of the airwaves. It conveys title to collect rent to the highest bidder at an initial government auction for a piece of the electromagnetic spectrum, instead of a perpetual arrangement of fees to be refunded to the public or commons representing everyone equally.

This principle, although not always easy to implement, has been explored elsewhere in some of the geo-libertarian literature stemming from the ideas of Henry George (1949). Free market ideas, in a wide context, may accommodate similar considerations with respect to land.

Credit expansion suppresses real rates and redirects funds to low return projects that bid up prices on resources and inputs away from more urgent or profitable projects willing to incur higher rates, skewing the economy off of its most productive profile. Some of the high turnover enterprises, as mentioned above, experienced difficulty obtaining funds even though prospects for returns could be higher than those that are capital intensive.

We can consume capital on the one hand and invest in the wrong capital projects on the other. Each of these may elevate measures of current GDP. But each of these subtracts from the ability to deliver supplies of usable goods and services in the future.

ASYMMETRY OF CREDIT EXPANSION

A look at the economy micro-economically reveals more. In cross section, we see horizontally different sectors such as entertainment, agriculture, sectors in manufacturing of autos, houses, goods, or services. Vertically we see streams of processes for each sector from the original raw materials, labor, etc. down to through stages of improvement until the final consumer good is wholesaled and then retailed. The highest (earliest) stages encompass the most fixed capital (machines, etc.).

On close examination, we will see asymmetric non-uniformity in effects on business from disturbances of the price system, from outside stimulus, from easy money policies, from lower interest

rates. We see that land and capital-intensive enterprises respond more to such stimulation by being more oriented towards the future due to the nature of capital, machines, etc. as long-term horizon investments.

It is self-evident that point source effects of new funds advantage earlier recipients over later, regardless of location in the production structure. Less evident are the effects that occur simply from the linkages of a complex economy where there exists more than an input-output relationship between all enterprises, but a structure of production that is then not only horizontal but also vertical in dimension.

In the orthodox view the capital structure of production is a given, timeless fund, behaving as if it were one stage only. Such over-simplifications may allow for ease in constructing elegant mathematical expressions, but remain unhelpful to understanding economic discontinuities, and even more, lead to erroneous under-consumptionist propositions that, for instance, more consumption spending doesn't reduce investment spending but increases it; or that adding to consumer goods output involves no trade-off against capital and intermediate goods output. But "there was and is always the choice between maintaining, increasing or consuming capital." (Machlup 1943, 580)

We know that steady infusions of money and credit can produce a general easing in credit and loan markets. But, to the extent the economy has this 'stageness' it responds to stimulation of all stages unevenly, just as in a case where one decides to shorten each rise in a set of stairs from 9 inches to 8 inches. Here we find that the adjustment of the highest stair, the staircase coming down to a fixed ground level from above is more than the middle stair while the adjustment of the lowest stair is even less, and further, an extra stair is added in a stair case of eight steps to make a ninth step, the highest step being lowered enough for the extra step. While the staircase is adjusted to reach the same elevation it has been stretched horizontally. Similarly we have dimensional rather than uniform changes in the economy. When readjusting back to the original sizing of steps, we thus have

much more to do than simply resizing each step. We have to deal with the cumulative distortion in the whole staircase where the effects become more pronounced at the top of the staircase than the bottom. In effect the whole building is at the wrong level.¹²

During the expansion, temporary excess (cheaper) credit stimulated the new spending in the vertically higher order capital-intensive processes. Consequent falsely inflated values in assets, equities, houses, etc., spurred consumer spending in durables, and through the wealth effect in consumables. Laws of conservation of energy apply; consumption and higher investment in consumer durables are sustained only by crowding out and eating into capital wealth. No new savings was provided or sacrificed out of consumption. The initial spurt in capital and more remote stage spending flows to, and employs more, original factors: land (real estate and resources) and labor. Note that this prolonged gradual redirection of labor and resources involves not layoffs or idle resources, but bidding of factors away from other established employments.

As aforementioned, under normal boom phases of easy credit, underwritten by government guarantees and stimulated by credit and money supply expansion, business investment becomes oriented toward longer more capital-intensive chains of production only viable under the easy credit environment.

Mises illustrated the process with examples of investment decisions made by entrepreneurs based on projected rates of return. At any time there are always more opportunities for projects than investors available. When funds are available at lower interest costs more of these projects look profitable, those that make a rate of return in excess of the cost of funds can be embarked upon. But if later on the lower cost source of funds isn't sustained, such projects may have to be abandoned.¹³

¹² See F.A. Hayek (1937), and more recently investigation by Robert Mulligan (2006).

¹³ Note that this is not the same as saying that the most productive projects are chosen first and then the less productive, creating a diminishing marginal utility function of capital that co-determines the interest rate with saving propensities. Hence it seems reasonable that productivity doesn't affect the amount invested. Instead changes in

THE BUST

The boom appears healthy up to the end. In a boom rising prices attract speculators looking to get in on the gains but who bail as soon as the price rise stalls and asset prices (real estate especially) level off; sources of funds attracted to appreciating values dry up. When speculators pull back, asset prices begin to fall and purchasers begin to desire liquidity. In the downturn, increases in demand for money balances can originate from a staging-ground that starts with the assets throughout the general economy. Suddenly it is not money, but goods, inventories and assets (including extended credit) that are in excess (at current prices).

Unlike the boom initiated by money supply injections slowly seeping in at specific points in the economy, assets are already dispersed; everyone can act at once. This is why it is called a panic; it is like a train wreck, it can happen in days or weeks. This spectacle, added to the fear of a run on deposits, is what spooked the monetary authorities in the last months of 2008. Well understood is the polar case of a free-fall in the demand for money balances that characterizes hyperinflation. In its counterpoint the upper limit (liquidity trap) for a rise in the demand for liquidity characterizes what we could call a hyper-deflation, or a hyper-credit contraction.

For earlier (pre-1933) contractions, busts or panics produced a run on the banks for currency. In 2008 transfers out of uninsured bank deposits and other lending instruments, corporate bonds, or stock equity etc. to safer and more liquid assets were mostly into short term Treasuries or to bank deposits now protected by FDIC, which was quickly extended to stem a perceived possible run on banks.

We know that cycles result from information deficits, from errors in business decisions. Under (hypothetical) conditions of (never attainable) perfect information, asset prices would be in balance with expectations. Supplies and demands would be in

time preferences produce a change in funds available; a lower interest rate changes the order of most to least remunerative projects.

perfect equilibrium (even with shortages of goods); no opportunity for speculative profit or loss would be available. So any regular or systematic disruption in markets should be suspect as the culprit in economy wide business irregularities.

In the case of a sudden contraction an increase in the demand for liquidity corresponds to a change in perceived information. What had seemed to be good information in the credit expansion has been discovered to be erroneous. Investors are disappointed. We can safely surmise that no useful economic model should assume that attenuated markets automatically possess functionally adequate or correct information. This should be no surprise when the market's choice of a stable money has been undermined by an unstable, easily manipulated, fiat money by the power of the state. Inflationary dislocations, and unsound depository practices add to the information deficits.

Such conjectures also conform to the facts. Historically, credit crises have been preceded by credit inflation initiated after exogenous money inflows from outside of the economy. The Tulip bubble occurred in the 1630's as the Dutch experienced a massive influx of gold from the new world. The fiat money inflation under John Law's influence contributed to the Mississippi and South Sea bubble in the 1720's. The 1923 German collapse followed massive hyper-dilution of the Reich mark. In the U.S. the 1930's great depression followed a 1920's easy money policy that enhanced bubbles in real estate and the stock market. (French 2009)

Thus money and credit were typically stimulative in the major cycles. Cycle durations might be prolonged by interventionist rigidities preventing markets from adjusting back to normal. By 1929 stringent credit policies along with distinct progress of the Smoot Hawley Tariff in Congress combined to trigger collapse of equity and credit markets. During the 1930's tax and regulatory burdens hampered business recovery turning a sharp contraction into an extended depression (in terms of living standards) lasting through WWII. In comparison, under periods of less intervention other significant corrective contractions, such as the panic of

1819, the crash of 1907, or 1921 were of short duration.

Once again we recognize that real estate speculation may have a non-entrepreneurial character. Simple price appreciation produces conditions that magnify trends. Bubbles develop in real estate due to appreciation in land prices. Mitigation could easily be accomplished by replacing taxes on productive activity with expense-based fees or taxes on land that include charges for utilities, road maintenance, proximity to public facilities such as schools, libraries, mass transit or subway stations, and access to fire and police services commensurate with those politically driven external benefits.¹⁴

Intervention in normal market corrections has long been the norm. We know that the Fed had massively infused the banking system with new credit money in the decades before the Great Recession. Latest figures on the monetary base show unprecedented rates of increase since 2008.¹⁵ It was argued by officials that some of the measures taken were essential to avoid descent into the precarious world of a global contraction and a second great depression or worse, as deposits and investments were poised to fall to a fraction of their level. In this way we may have been on the way to a super depression, just as managed forests have experienced conflagrations.

During the euphoria of the last extended boom banks increasingly leveraged reserves and capital. Deposits were virtually all lent back out, not being handled or honored by the banks as literal deposits at all, but as loans. The problem with this is in trying in effect to have two owners for the same funds, (1) the depositor, who expects the money to be in the bank at his disposal, and

¹⁴ "It costs in many cases more to get vacant ground upon which to build a house than it does to build the house. And then what happens to the man who pays this blackmail and builds a house? Down comes the tax-gatherer and fines him for building the house." (George, [1885] 1999, p148.) Henry George felt that owning land by more than a possessory title enforced by the state may be similar to owning people by title enforced by the state in the sense of an ongoing wrong to those subject to enforcement of the title. His single tax would bring down the cost of land to an affordable level and discourage holding land off of the market as an asset held for appreciation.

¹⁵ Moving from \$850 billion in 2008 to more than \$4 Trillion by 2015.

(2) the bank that lends it out as if the same money belonged to the bank.¹⁶

Swift action by monetary authorities were claimed to have averted a run on depository institutions and fallout that would have meant a further loss of asset values. Thus, to cover deposits (amounting to greater than \$2 trillion above the \$100,000 coverage), FDIC insurance was extended to \$250,000, including coverage of money market funds, just in time to stem a purported run on these deposits that appeared underway the week of the rescue bill's passage, and was to prevent a collapse of money well below possible market clearing levels.

We have noted that Austrian economists contend that influxes of money, by reducing credit costs, not only caused unsustainable investment spending, but did so in a way that distorted the economy by causing over-extension in more lengthy processes and under-extension elsewhere. Under a return to normal credit conditions, restructuring revealed real losses. The unrecognized problem had been malinvestment, not overinvestment.

Thus money supply expansion, endemic to central bank economies,¹⁷ may initiate misdirection in the stock market equities or real estate, and acts as a catalyst for credit market expansion, intermediation, and excessive leveraging. In contrast a system of free banking was more conservative and subject to market discipline in issuance of bank notes, and in maintaining reserves or bank capital against deposits.

OF DEBT AND DEFICITS

Congress has presided over the accumulation of budget deficits that by 2019 exceeded \$21Tr. Monetization, the process of buying Treasury debt with Federal Reserve credit, accommodated and enabled the practice. Deficits have been thought to be a

¹⁶ 100% reserve advocates maintain that deposits should be treated as titles and thus never loaned out.

¹⁷ Keeping in mind that Central Banks are creatures of legislated interference in the commercial world of banking.

means of shifting costs onto the future. There is truth in this. Deficits redirect resources and capital into channels not subject to profit and loss expectations reducing productivity and capital accumulation. They result in higher social time preferences due to the consumptive nature of government spending.

Every debt is also someone else's asset. Lending for projects that are long-term entail more risk than for short, other things remaining the same. During periods of increased profit expectations there can be over-lending in this sense. But without the chance to borrow, some highly promising—highly productive undertakings would not be possible. If a business needs a better truck that can double its efficiency of distributing its products the borrowed funds may generate not just an interest payment for the loan, but perhaps several hundred percent in return on the investment. This will likely expand the demand for the product when the price is lowered for the consumer. It produces the need for more employees and is the principle mechanism that raises real wages all around. It is the engine that lifts the standard of living. It is capitalism.

But when funds are not from the surplus that occurs after consumption, i.e. not from saving, there is no gain because the new credit is at the expense, in the end, of the rest of the investment economy. False wealth from printing money only erodes the unit value of all of the money holdings until there is no net real increase in funds. Then these loans, in the whole, must be diminished with losses from the pull back in available financing unable to sustain the expanded capital investments.

INFRASTRUCTURE

Austrian economists pay special attention to investment composition rather than volume. High capital output ratios are no guarantee of higher growth or productivity. Infrastructure projects are capital intensive and a favorite excuse for deficits but are no guarantee of productive outcomes. They divert funds from a balanced mix of capital and labor to one that is politically determined. With highways and buildings (and earlier for canals and

railroads) for instance, the economic payback extends over many decades into the future. This produces a minimal average labor to capital ratio as capital is solidified for years past the short construction period. Here, circulating capital is converted to fixed capital that cannot be combined with labor.

MONETARY MANAGEMENT

Monetization: Credit expansion generates pro-cyclical malinvestments (rather than mere over-investments) per Mises' 1912 Austrian Business Cycle Theory. Fed monetization, can permanently sequester debt onto its balance sheet (currently remaining above \$3 trillion) as it dilutes (expands) the supply of money. Should the \$2.4 trillion in Treasury securities be cancelled as inter-agency debt, it would not cancel the loss to the economy already incurred. The cost has already been born by higher prices in the near term than otherwise, occurring in sectors that were subject to the new spending and finance that resulted from Fed quantitative easing.¹⁸

We have noted how monetization generates Cantillon effects, benefitting those who are in closest proximity to the new spending before prices rise. Those downstream, or on fixed incomes face prices that have already increased before they can use their new funds. The money siphoned through the Washington DC area thus currently accounts for 4 of the top 6 U.S. counties in household income levels with a net negative result for the productive private sector.

Naturally, as a boom gets underway credit or debt financing expands and confidence builds. During a credit expansion boom what appears to be simply over-indulgence or over-extension is more typically an insidious misdirection of investment or expenditure. The downturn becomes inevitable. It is not too much production, wealth, or real savings, but rather not enough where

¹⁸ (See my depiction of the monetary landscape at depictonomics.com)

needed and too much where not needed. Unsound investing becomes self-reinforcing as price appreciation in certain types of capital, land, or assets occurs at the expense of investment in more fruitful lines of production.

Given the reality of over-stimulating credit market policy over the preceding decade, some market correction was inevitable, but as we have seen policy makers were not about to capitulate to an unmanaged market correction. Continuing proactive interim measures by the Treasury and the Fed to stabilize the existing market landscape, were inevitable in 2008 and beyond.

Policies such as tax relief on productive activity or encouragement of investment through reducing capital gains taxes were limited. There was every danger of permanent extension of control adverse to financial markets. Orchestrating the default on General Motors bonds undermined confidence in financial contractual obligations, unhelpful at a time when credit markets remained frozen. Dodd-Frank introduced costs disproportionately among businesses.

Measures taken to moderate deflation of prices in sectors such as real estate prevented a return to balanced affordability of home ownership.

Action was taken to avoid the disruptive effects of a functional money supply collapse. The alternative of no action would have relied on market adjustments alone requiring prices to fall by 25% or more. In the 1930's Great Depression, such price deflation was disruptive—labor costs (wage rates) could not follow suit to allow markets to clear.

This is best seen with the quantity theory of money, ($MV=PT$). It is useful for this purpose even if deficient in revealing relative or sectoral distortions during and inflationary boom. The formulation nevertheless illustrates the macroeconomic effects of impacts on the economy relevant in the Great Recession. For markets to clear, when the functional money supply along with the velocity (V) falls precipitously, prices and or transactions need to fall correspondingly and disruptively.

Federal over-regulation or mis-regulation of depository institutions has been anything but accidental over the decades following the Great Depression. As we will see, without the imprimatur of federal protection, mechanisms inherent in the competitive market would have provided a check on bank deposit excessive-leveraging.

The replacement of market discipline with a regime of political and vested interest influence has resulted in unusual and unexpected phenomena. For instance, today's enormous derivative markets of hundreds of Trillions of dollars arose out of the need to insure securitized mortgage instruments against risk in currency fluctuations, and interest rate fluctuations. In contrast, under the global gold standard, because it was a global currency, there was no need for a futures market in currencies. Another outcome of the replacement of market corrective forces was the secondary mortgage market primarily spurred on by policies of Freddie Mac and Fannie Mae, government sponsored entities.

Derivatives in currency futures arose entirely as a result of the growing influence of nation states and their abandonment of the gold standard. Likewise, price fluctuations and interest rate fluctuations generated by fiat money regimes have produced record numbers of credit market derivatives. Naïve proposals to return to erecting protectionist, mercantilist barriers to trade run the risk of instigating currency wars, as well as fomenting military ventures to secure access to markets and resources, and repeating the mistakes leading up to World War II.

We have unwittingly subscribed to a monetary system concocted in bank boardrooms and prestigious economics journals rather than defending the system evolving through centuries of choice selected by commerce. Insurance derivatives emerged as a consequence of untying currencies from each other and from the discipline of a monetary commodity. Markets needed a substitute for loss of confidence in reasonably stable price levels, interest rates, and currency exchange rates. Should major holders of these instruments, such as China, decide to dump their holdings on the market the economic outfall could raise interest rates.

Fear of a U.S. default on these obligations through inflation, or fiscal irresponsibility by over issuing Treasury bonds, may be the catalyst.

BANKS

Despite several attempts during the 1800's to permanently establish a central U. S. bank, banks remained politically unorganized as an industry. As a consequence individual banks were not immune to bank runs whenever their depositors were made aware of weaknesses of the bank's loans and assets. Some banks kept up to 50% of deposits on reserve to avoid bank runs. But this meant they could only lend half of their deposits keeping the other half idle, not earning interest. (We will see shortly that what is good for a bank alone, more deposit credit money, is not any benefit for the economy). Including bankruptcies, 19th Century depositors and fixed income recipient's losses were minor compared to welfare losses from the toll taken by price inflation in the 20th Century under the purview of the Federal Reserve.

Pre-1913 bank failures, and especially the panic and correction of 1907, spurred support for new bank regulatory protection, even though regulation was problematic for bank stability. Banks were already weakened by prohibition of branch banking in the Nineteenth Century and already protected from market discipline by policies that permitted banks to suspend specie payments to avoid bankruptcy. The opportunity was seized upon by the larger banks. They consorted to gain the establishment of a federal central bank as lender of last resort and to organize bank note clearing house functions allowing individual banks to reduce reserve holdings, as we will see below. In collaboration with political insiders they pushed through the Federal Reserve Act of 1913.

The Federal Reserve Act also empowered Treasury borrowing by floating bonds. In practice the Fed could buy these bonds in the market while paying for them with newly created Fed IOU's used as money by the banks. These Fed IOU checks end up in banks when deposited and allow for expanded bank lending. As

bonds are sold to the Fed new reserves are added to the credit markets that counteract higher interest rates caused by the extra treasury deficit borrowing. This practice of *monetizing* the debt was adopted by European central banks to facilitate deficit financing of WWI as an alternative to less popular tax increases, just in time to provide financing the belligerents, enabling the prolonging of that debacle.

Open market operation purchases by the Fed's FOMC (Federal Open Market Committee) can increase the nominal money supply. The banking system as a whole receives new deposits that automatically allow for increased interest earnings on the new loanable funds. Banks thereby enjoy an unearned source of income. Because these windfall gains have already been priced (capitalized) into bank equity shares, present owners of bank equity by and large recoup only marginal benefit from this form of seigniorage. They would have something to lose however if it were discontinued.

Recent stimulative Fed policy included payment of interest to banks for parking reserves at the Fed. Additionally, discount window borrowing from the Fed allowed banks to gain from the carry-trade interest rate differential between the cost of funds and higher interest earnings from bank investments in Treasury bonds.

As discussed above under money inflation, what first appears to be a period of growth in available financing for business later turns out not to be. The illusion eventually disappears as input prices rise. Prices will rise enough to adjust the ratio of the real money supply (after the money depreciates in proportion to price increases) down to its uninflated level in the economy. Although the economy exhibits change, this adjustment back to its supply in real terms underscores the fact that money's usefulness to an economy remains essentially the same regardless of how much the nominal supply, or how many units of money, remain extant.

To see this suppose two isolated countries A and B, have identical resources, population, and production of goods and services. But B has twice the amount of money as A. One could expect that

the price (and wage) level in B would be roughly twice that in A. The country with twice the money supply (B) would also have each unit of money representing roughly half the purchasing power as the units of country A. If country B's economy were twice the size of A's then the price levels would be roughly similar, other things being equal. Note that any measure of the total economic activity of either country would need to be deflated by a price index.

After 1913, under the new Federal Reserve System, banking interests succeeded in reducing reserves to nearly 10%, avoiding the earlier substantially higher market determined reserve ratios. This new, more extended fractional reserve system, underpinning and enhancing the credit bubble of the 1920's, was marked by its contribution to the calamity of the early 1930's that brought down thousands of small banks. In the six years (1914-1920) just after the new central bank regime, total bank deposits grew from \$14 Billion to \$29.4 Billion (Paul and Lehrman 1982, 119-122).

Productivity gains moderated price inflation in the 1920's. (The experience of falling prices during increased output and real income constitutes growth-deflation.) Narrowly defined money supply totals did not show undue money supply expansion. However, such measures do not reflect the greater credit expansion induced by policy nor the reduction of demand for liquid and risk averse assets and money. Clearly, just as was the case leading to 2007-2008, overinvestment occurred in real estate and stock equities. In reaction to the events of that period leading to the Great Depression the cry went out for even more protection. As a result Congress implemented FDIC guarantees in 1934.

After the 1930's, Federal Reserve Bank credit expansion supplied the monetary base for the leveraged growth in bank deposits based on the reserve ratio. This dilution of the U.S. money supply eventually undermined the 1944 international Bretton Woods gold exchange system. Its breakdown, punctuated by the 1971 U.S. default on dollar convertibility to gold promised to foreign central banks, ended reliable currency exchange rates and marked the onset of an enormous compensatory market in deriv-

atives. These policies also directly resulted in the greater than 10-fold increase in prices by the end of the 20th Century.

The history of government regulation gives us little hope that more of the same can protect us from a credit collapse. More such regulation produces greater moral hazard and risk and not so coincidentally benefits elite and powerful elements in the financial sector. Current deficit spending indiscretions appear to be geared to promote even more concentration by the banking oligopoly. Once again, just as in the “progressive era” the ruse of regulation sets up the means for industry leaders to eliminate competitors, and avoid the market’s internal regulation that would have included the threat of bank-runs.

Partial deregulation may not always move the economy closer to free markets. Not uncommon is a semantic conflation of deregulation with free markets. The introduction of FDIC in the 1930’s was deemed liable to promote moral hazard for deposit banking. Glass-Steagall was to put legal limits on commercial bank expansion into investment banking as a way to make up for the loss of market discipline removed by the new FDIC regime. Naturally, removal of regulations in the 1990’s was likely to result in the furthering of distortions caused by FDIC intervention in the market. This result of “deregulation” of Glass-Steagall in 1999, while an argument against partial deregulation, hardly constitutes an argument against free markets, but rather in favor of free markets. It argues more so against the earlier removal of market strictures. Genuine free banking entails regulation by the discipline of the market, (i.e. the ability to withdraw deposits). Economic performance under free-market governance exceeds that under political governance. The recent Fed purchases of toxic bank assets (securitized mortgages) that rank as worthless simply translates as gifts to these institutions. The near \$1 Trillion that the Fed acquired through fiat by 2009, growing to \$4.8 Trillion by 2015 in the form of bank credit, has no precedent.

It is no coincidence that the century of total war
coincided with the century of central banking.

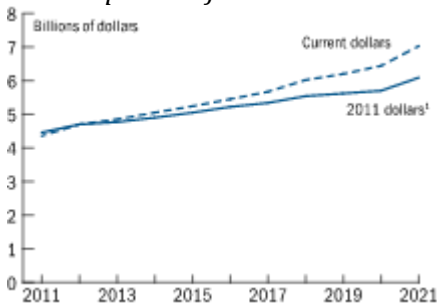
—*End the Fed* by Ron Paul

No modern economy can dispense with the financial intermediation of banking, and no legislative body, having free-reign to make law, is exempt from this sector's influence. True to form, through the Nineteenth and Twentieth Centuries, banks attained legislated immunity from business legal custom. They were given the special privilege to suspend specie payments and to avoid bankruptcy through bank closures, enabling increasingly unsound practices. Then, capitalizing on consequent financial disruptions, e.g. the panic of 1907, and in league with the old-order reactionary forces of centrist-paternalism, a nascent banking cartel pushed through the Federal Reserve Act of 1913 to ensure further insulation from the forces of market discipline.

Knowledge of these developments, with the revolution in information availability, no longer is the exclusive domain of academics.

The Fed has since grown into a bureau of monetary central planning that would be the envy of such monarchies under whose grip we citizens once risked life and limb to overcome. The Fed has, under permission to conjure an extensive but surreptitious off-budget source of income, made the task for its dissolution the more daunting.

Total expenses of the Federal Reserve System



Source: Federal Reserve Board of Governors

It now manipulates the financial landscape to the tune of Trillions of dollars under the pretext of economic stabilization and it provides a backstop for deficit spending through debt monetization.

By 1934, under this new order, the U.S. devalued the dollar against gold after having wrested from the people rightful dominion of their specie-demarcated bank deposit balances and right to own gold; and by 1971 abandoned the (international) U.S. dollar-gold-peg; both implemented to stem imprudent policy-caused gold drains.

POLICY DILEMMAS

It takes no statistician to recognize the pattern of economic turbulence since 1913. But it takes more than that to discern the economic gains that would have ensued under free commerce—the principle of mutually-beneficial peaceful-interchange—instead of the burden from official dilution of our money by the identical devices of the counterfeiter and plagiarist, enabling profligate spending, cronyism and war.

By the 1970's, under expansionist policy, stagflation (recession and inflation) emerged; early on it was Murray Rothbard's incisive, illuminating application of Austrian theory, in the 1972 introduction to *America's Great Depression* that exposed the fallacy of the Phillips curve supposed discretionary policy trade-off between unemployment and inflation.

This flawed (monetary-expansionist) discretionary policy doctrine remained mainstream, and increasingly operated to derail loan-market interest rates, albeit with belated policy reversals marking only arrested partial economic corrections.

Moreover, the doctrine presumed a knowledge of the unknowable (as with central planning generally). It implied that policy effects were ascertainable and under control, along with an appropriate target number for short-term (Federal Funds) rates

and other gauges of the macro-economy. The natural rate of interest proved too elusive for policy purposes.

We do know that monetary expansion operates mainly to lower loan (financial-market) rates; but then, in the broader time-market, as the new spending raises prices, and because a business's cost expenditures predate its sales revenues, increased calculated profits exerts forces to raise rates.

We know that misappropriated stimulus funds bypass normal business channels, but nevertheless raise prices for resources and inputs generally. As a result, (and not yet well-known outside of Austrian analysis), the resultant squeeze on business rates of return in the productive sector then exerts a force to lower rates through the time-market. Alas, risk and price expectations interest rate premiums in the loan-market working to raise rates are at odds with anticipated pricing (rational expectations) acting to damp them, while increased tax and regulatory burdens on business act to raise them.

Price changes too have wealth effects on savings/consumption decisions which also react to, and influence rates, in both time and loan markets.

Of course, there is an underlying natural rate (Wicksell), and an ordinary (Mises) or pure (Rothbard) time-preference rate; yet these were posited less to be identifiable for practical real-time purposes, than to be conceptual aids in understanding the visible, policy disturbed, gross (loan-market) rate.

Finally, these various unforeseeable policy effects are disequilibrating. In their absence the proper rate would harmlessly self-adjust.

Other policy indicators suffer, not only for technical indexing problems, but for their innate inapplicability. Recall Fed Chairman Ben Bernanke's denial of a bubble in real estate just before the 2007-2008 crash. To be fair, as we will see, such asset price-inflation is elusive. But more than that, the Fed's guiding indicators remain innately flawed as tools for analysis.

For instance, money (nominal) GDP, is directly affected by the money stock, which is controlled and manipulated. Moreover,

nominal GDP is inversely affected by money demand (to hold), which is subject to sentiment of business and the public (nationally and globally); either of which can proximately raise or lower nominal GDP unpredictably. In real terms, current output can grow simply from money-accommodated spending (for instance as military spending counted as final output during WWII) or other wasteful spending, but perversely affecting the potential growth path of the economy.¹⁹ Conversely, in money terms, GDP may not (and need not) rise, even in a growing economy, when money supply and demand remained unchanged.²⁰

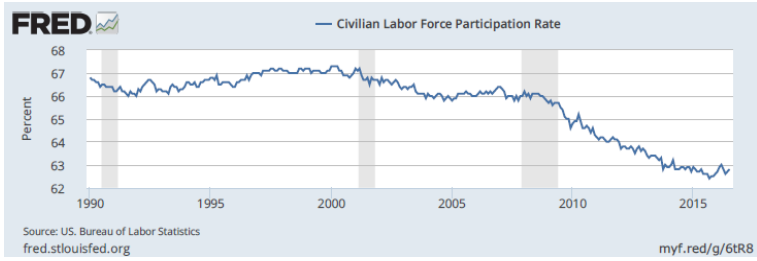
Inflation guideposts such as the CPI fare no better. They never signaled a boom leading to the crash of 2007/2008, nor did so during the 1920's. This is because, as Austrian economists have long revealed, monetary stimulus produces imbalances without an average price increase when offset by increased productivity. Hence, without money and/or credit growth, prices can ease down with beneficial effects (termed growth deflation) as productivity advances (for instance in consumer electronics). Oblivious to this, policy makers have for decades aimed to elicit a modest but imposed rise in the CPI, while in retrospect attributing imbalances to either positive or negative 'supply shocks'.

As for the unemployment rate, its reduction since 2009 gave little comfort: the type of employment deteriorated; the chronic unemployed are uncouneted, while labor participation rates had fallen.²¹ In addition, after any shock, some markets can tend toward a match of supply and demand, independent of overall economic improvement. In the most primitive society there can be "full" employment.

¹⁹ <https://mises.org/wire/central-bankers-claim-things-are-better-you-think>

²⁰ <https://mises.org/library/fed's-confusion-over-natural-rate-unemployment-and-inflation>

²¹ <https://mises.org/wire/worker-participation-rate-falls-37-year-low-july>



On top of that, recovery policy, both in spending and in Fed purchase of distressed financial assets, stimulates some sectors, while de-levering is occurring in other sectors; capacity utilization will be low due to needed liquidation of previous malinvestments—not, as misconstrued by the mainstream, from inadequate aggregate demand.

What is more, such an over-simplified view—that the economy responds uniformly to total spending—leads to undiagnosed asset bubbles; and once they collapse, to blaming irrational speculation. The housing bubble being a case in point encouraged by stimulus following the Tech Stock crash and 9-11.

For participants in markets prices are key to discerning trends. Consider that even after a halt of new money injections bubbles may persist. Price expectations lag—money demand (to hold) may be reduced, or other spending slowed; banks might extend loans for more asset purchases, secured by existing asset collateral, even more so with increased moral hazard from past government bailouts and insurance, all contributing to an indeterminate bubble peak and duration.

Hence, a policy influx of new funds, causing certain prices to rise, risks initiating bubbles: subjective valuations then obviate reliable identification of the extent of a bubble, much less of when it might collapse.²²

Regardless of the futility of relying on faulty indicators and the facile supposition that the economy either overheats or cools, perceived suboptimal performance (caused by earlier policies and

²² <https://mises.org/library/early-speculative-bubbles-and-increases-supply-money>

crony-legislated interventions), in a compounding of errors, elicits further Fed stimulus, with new formulas presumably defining the policy stance. And given the government and crony funding bias in favor of expansionist policy a false pretense of stabilization is perpetuated.

The bottom line is that central banks always violate even their own bounds or rules with respect to credit creation when politically expedient. We saw this with the belligerents in WWI especially and in the crises of 2008. With a pretense of stabilization, governments will continue to have free reign to engage in rescue of the financial community that recklessly overleverages. Worse, central banks will continue to impart free-reign to governments inflating their monetary base to finance unpopular expenditures enabling wars resulting in money depreciation.

CONSUMPTION AND SPENDING

During the boom, resources and capital were being squandered in higher consumption. This may seem counter to our finding that business investment spending was over-stimulated. But these excesses rather than being quantitative are qualitative. Changes in capital are compositional, not simply quantitative. Productive effort was redirected. Not overspending but the skewing of spending ensued. As perceived wealth and assets were over-appraised, spending on consumption also increased; both involve malinvestments stimulated by encouragement of expenditure on durable but uneconomic projects.

We think of credit card spending as a form of present goods spending (as opposed to investment goods) emphasizing indulgence and wastefulness. To the extent that this occurs, i.e. that spending is for goods and services used up in the current year such as vacations, expensive dining, stylish clothing, etc., that indeed accounts for some of the real loss to future economic output that would not have been the case without the over-optimism and lower risk assessments for debt that accompany the boom.

If we look at all spending, including consumer spending, not simply from the viewpoint of who does the spending, but rather from the functional viewpoint of what the spending is for, we see a spectrum of spending all of which could be called investment spending. This spending spectrum ranges from immediate, used-up or ephemeral consumptive investment, to long-range consumer durables and business capital invested in provision for the future. Another way to see this is to think of present consumer spending and future consumer spending, or to see that the time element permeates spending decisions. Spending for future consumption we think of more as investment spending.

What is more, it would be wrong to condemn prime investors in real estate for simple greed. How much of such investing occurred from the fear of loss of value in more liquid financial assets such as CD's under conditions of endemic dollar depreciation (i.e. secular price inflation)? Housing especially was vulnerable to price appreciation after the 1997 extension of its capital gains income tax exemptions from 100 to 500 thousand dollars.

With the failure of Congress to remove capital gains taxes imposed on other competing investments, distorted overinvesting in real estate ensued. Even consumer spending can be misdirected in a boom. Considering mortgage interest deductions, there was no free-market to blame here.

If the over-simplified idea that aggregate spending drives the economy were true, the economy should have been all the more healthy as debt was increasingly taken on over preceding decades to allow more absolute spending. What we have instead is an economy in distress. What matters is the composition of spending not the amount, and especially not the amount of consumptive spending alone.

When the economy is less than at full capacity politicians and even economists too often favor any kind of irresponsible spending to boost demand, to encourage more production. GDP can always be boosted by profligate debt spending on consumables just as one can increase his present comfort by warming his house by burning more fuel even if it is one's antique furniture.

As we will see GDP incompletely measures economic performance and is no overall measure of economic activity.

Regardless of whether or not one believes there could have been a drastic collapse of spending during the 2008 credit contraction in all sectors of the economy, there was no simple remedy. Further unwarranted debt spending, this time by government, failed to provide the needed corrective reallocation of resources. It now is clear final goods spending, as measured by the GDP was down 6.3% in the fourth quarter of 2008 and 6.4% in the first quarter of 2009.²³ This certainly was no drastic emergency calling on desperate infusions of random spending. Although some dramatic fixes were necessary in monetary policy, and some support for key financial institutions were perhaps excusable to avoid unnecessary panic, no such need existed in fiscal policy, especially not for spending for spending's sake.

We should expect a reduced GDP given that saving rates increased briefly and we had a shift away from final goods demand and output that followed the reversal of unrealistically inflated asset prices. This was unavoidable and a sign of the economy adjusting to disequilibrium brought about by the boom, not a panic collapse of division of labor, exchange etc. Had the money supply dropped 25%, as in the Great Depression, then such a general collapse might have occurred.²⁴

Outwardly, spending reductions on the part of the consumer seemed to reduce economic activity. But sustaining artificially high wealth consumption through debt creation, that characterized the preceding several decades, only would slow adjustment. To the extent this debt spending used up previously saved

²³ By 2010 measured GDP had become positive.

²⁴ The economy came under both demand side and supply side shocks that added to the 1920's malinvestment boom readjustment starting in 1929. Thus, added to the correction for distorted investment brought about by easy bank credit in the 1920's was the collapse of the money supply. The banking system, based on government promoted fractional reserves, imploded. Economically draconian tariffs, new taxes and new disruption of competitive markets through regulation provided the supply side shock. (Rothbard, 1963)

wealth, or its assets (capital depletion), continuation was a relative foundational loss for the future economy.²⁵

Growth theory generally has established that increasing the capital base, increasing investment and saving over consumption grows economies. By contrast consuming resources and the capital base impoverishes economies. What separates third-world economies from first is not lack of will to improve, or lack of access to technology, but lack of capital and the legal customs that ensure individuals and businesses can avoid predation, whether from individual or collective sources.

With the government in the role of a big irresponsible consumer, not only did we see more billions allocated to numerous wasteful programs, we saw the diversion of resources from profitable sectors or businesses —the bidding away of those resources from the rest of the economy. The former is spending easily seen; the latter (foregone spending) is spending not seen, that might have been, had input prices for unstimulated sectors not been bid higher. Government spending can be characterized as “capital consumption.” (Mises, 1966, p.850)

As we have seen the unhealthy expansion goes undetected because analysts only heed warning signals from consumer price inflation, or aggregate output indicators. These measures may fail to correlate to credit expansion due to productivity increases, increases that tend to reduce prices. At the same time easy credit distorts the economic landscape by redirecting spending from its ultimate market driven course. Such was the case in the 1920’s leading up to the Great Depression.

GDP A CONCEPTUAL ABERRATION

The common perception that consumptive spending drives the economy ranks as one of the most indefensible propositions used

²⁵ See Reisman (1998, 542-559) for perhaps the best exposition on the fallacy of consumptionism.

in economics.²⁶ First it is an error of causality and second an error in measurement.

Consumption constitutes the act of extinguishing or using up goods and services. It is limited to what is currently produced and what has been set aside from previous production. The urge to consume exceeds what is available. But no causal connection can be inferred from consuming to economic activity. Higher long-term consumption results from increased production. Consumptive spending can increase in a boom environment at the expense of normal maintenance of, and additions to, capital and savings, but this hardly drives the economy—rather such expenditure is possible because of the permissiveness of credit. Again, one can burn his mahogany furniture for heat to increase present measures of economic activity and utility but such capital consumption subtracts from future utility.

As an accounting identity, consumption expenditures (one side of an exchange) equal goods sold (the other side of the exchange). Thus, this accounting connection is made based on the dollar ratio of consumption to GDP, a measure of final output. But consumption making up two thirds of this measure no more causes two thirds of GDP than would a municipal water uptake of 2/3 of a stream influence the upstream rate of flow.

Yearly final goods output measured by GDP enters into total spending. But business spending actually exceeds consumer spending, GDP is no measure of total economic activity or spending. No logical basis can be offered to express the economy as represented simply by GDP. Existing assets and capital, for instance, must be continually re-committed to productive tasks just to maintain the same level of output from period to period; these are not final goods or services. Intermediate goods are exchanged between businesses. The market involves what is possible, it can't recognize the near infinite desire for goods and services which does ultimately motivate economic activity. The market economy

²⁶It has led to the supposed "paradox of thrift" familiar to students of economics as an under-consumption problem but rejected by Austrian economists: "This doctrine is as old as it is bad."-Mises (1966 p.432)

only knows what is offered in exchange for them. The amount offered depends on vendible resources produced or available.

GDP can be contextually useful to compare performance of one economy against another, to measure performance over time. It may also lead to nonsensical conclusions such as that the Great Depression was ended just because GDP rose as government war outlays boosted this measure, but with no improvement of living standards. Measurements during the war were also distorted as price indices needed to deflate output values were held down due to price controls. GDP, as defined, is an arbitrary measure.

The fallacy in using GDP (final goods and services) as a reliable measure of economic activity can be illustrated in taking the case of an economy where all goods and services are dedicated only as inputs to further production. Here all housing and food would be seen as input costs, and whatever R&R activity or socializing also seen as essential inputs to maximizing production where everyone has personally incorporated as a business, so that all income is business income and all expenditures are business expenditures with no consumption expenditures. Then in this economy, if for instance production remained the same every year with no net investment or addition to durable goods (these are counted in GDP), we have the useless result that no GDP could be measured since there are no final goods or services as defined. Whatever one wishes to call such an economy it certainly is not devoid of economic activity. Such is the absurdity of using GDP as synonymous to economic activity.

Because any measure of the economy is in dollars, we also see that without a money supply increase, prices would generally fall with economic growth; any attempt to arrive at a real measure of growth would require inflating measured nominal growth through use of a price index.

Normally productivity gains operate to lower prices beneficially, as does deleveraging of credit after cyclical conditions top out, but authorities know that GDP numbers (not fully indexed due to the lag in the GDP deflator) are boosted when prices rise, and

hence target policy on this measure, resisting the slightest amount of deflation.

DE-LEVERAGING

Markets reacted strongly to decades of credit expansion and promotion of home financing partially encouraged by secondary mortgage market GSE's (government sponsored entities) such as FNMA, GNMA, FHLMC, and the Community Reinvestment Act of 1977. Interest cost deductions tax shelter and increased (1997) exemptions of home value appreciation from capital gains taxes and FHA insurance provided further stimulus. Seldom mentioned is the imputed rental income exemption from taxable income enjoyed by home ownership (Gaffney 2009: 114-116): If I move next door and rent your house, and you rent mine, each of us receive rental income that is taxable. We escape this tax by owning what we in effect rent from ourselves.

By 2008, investors reacted to asset and equity depreciation, and even default risk, by selling investments; businesses reacted by reducing inventories. In economic terms this can be seen as an *increase* in the demand for liquidity, or alternatively a subjective reduction of confidence in assets that previously served as sources of liquidity and a narrowing of assets considered near money. Investors have either increased holdings of other investments of lower risk such as U.S. Treasury bills or short-term T-bonds, or increased holdings of FDIC insured bank deposits. This constitutes a flight to liquidity and is price-deflationary.

De-leveraging has a life of its own. The withdrawal of funds by person (A) from a thrift institution reduces loanable funds to the economy. Person (A) is paid with a check drawn on the thrift's bank account which is debited, A's checking account is credited. Total bank demand deposits stay unchanged but the original savings account or CD of the thrift has been closed and no longer a source of funds for lending by the institution. If (A) keeps this money in the form of his checking account a contraction in loan-

ble funds has occurred. This process is a form of disintermediation.²⁷

Should (A) lose faith in deposits and withdraw currency, to hold for safety, then even demand accounts are reduced and thus are loanable funds of the bank further reduced. Such a bank-run in some cases could be avoided by extension of FDIC coverage.

Falling equity prices in the stock market and falling real estate prices reduce perceived wealth. Falling equity values in a bear market affect all owners of a stock. In this way wealth can seemingly evaporate. But this wealth was only on paper. As we have seen in boom periods some asset prices can be bid up not from monetary or credit expansion, but simply notionally once an atmosphere of rising values spreads through the market bidding process. Similarly some asset prices can deflate, not from monetary or even credit contraction, but simply from notional changes, and liquidity preference needs.²⁸

At the same time that demand for assets falls and demand for money rises, the desire to borrow decreases also, and loan demand falls and so counteracts the upward pressure on interest rates in the loan market due to the reduced availability of loanable funds. Reading too much into interest rate moves can be misleading as both the demand and supply of loanable funds fall. What is more, when price expectations are negative, real interest rates may be higher than apparent (nominal) rates. Only months later after price data are available is the real rate discernable.

Perceived default risk for loans restricts credit. Because clearing systems work in an extensive credit environment, restricted credit in turn reduces the use of the credit market to transact clearinghouse adjustments to meet payment needs (Mises 1912). The clearing function normally assists transactions in what would

²⁷ This term, when applied only to a single bank, has been used to indicate the opposite effect, (i.e. moving money out of its deposits to other institutions, the funds lost from one bank increasing the deposits of another bank). A single bank can lose deposits, but not the banking system as a whole.

²⁸ Even so the historical record shows that more significant bubbles occurred following outside stimulation of a monetary nature. See Douglas French (2009).

otherwise require a higher level of money availability. Loss of this results in even more need for the already diminished availability of liquidity, compounding the increased demand for the smaller pool of assets considered to be acceptable as money in the broader sense, and so is further price-deflationary.

De-leveraging can and has been countered by a massive increase in the monetary base by the Federal Reserve. This will only potentially produce more demand deposits and thus more potential for bank credit. By early 2009 the Fed had infused hundreds of billions of dollars into the banking system, in 2010 bank lending continued to be restrictive. To the extent banks use the new Fed credit to increase their reserves such policy has been compared to pushing on a string. As we have seen, banks enjoy a carry-trade advantage as they have been able to borrow from the Fed at a lower rate than can be earned on T-bonds. Bank reserves kept at the Fed earn interest. Fed policy has accomplished one thing: the restoration of bank capital for major players. The restoration of balance sheets clearly took place because banks had acted unpropitiously up to the crises under and atmosphere created by the expectation of just such rescue of the too big to fail.

Contrary to pronouncements by the mainstream financial press, the problem we faced following 2008 was lack of savings, not lack of spending. Both business and consumer spending, especially for more durable investments, were skewed in the boom. Spending was out of line with means. More debt, even if originating from government borrowing, will be counterproductive to the purpose of working back to affordable spending for the economy as a whole. Excessive debt spending made housing prices unaffordable as well as allowed for unsustainable purchases of expensive auto's and other non-essentials and the bidding up of equity prices. Policy should not have been aimed at reestablishing boom prices in these assets.

Printing money provides no real wealth either. Prices will be higher than would be otherwise. For most consumers, falling prices at least provide some relief in cost of living expenses and affordability in housing.

Ostensibly, this Fed policy of increasing the monetary base and creating the potential for future price inflation could be just as easily reversed by the opposite action on the part of the Fed (tightening credit) once the crisis is over. If, however, interest rates begin to rise as price deflation gives way to price inflation, then the pressure on the Fed will be to continue an easy money policy to keep interest rates down, especially if the economy is in recovery and not up to speed. Then the resulting continued inflation would bring on the next policy dilemma and crisis similar to the 1970's period of inflationary recession. An alternative would be for an increase in reserve requirements that would nullify the inflation potential while serving to continue its original purpose of backing deposits.²⁹

We have seen that a bank run, or flight from demand deposits into currency, can reduce demand deposits and loanable funds as well, but it is to be emphasized any bank run remains unlikely as long as trust remains in FDIC insurance and bank bailout policies. We recall that the 1933 employment of FDIC insurance only arose because of the artificial legal construct of fractional reserve banking.

Not surprisingly after banking industry leaders achieved their government-banking partnership created by the Federal Reserve Act of 1913, banks increased their deposit leverage. This system became insulated from free-market discipline even more after 1933 with FDIC, bank holidays, too-big-to-fail bailouts, and monetary base injections. In this regard correction of these effects does not necessarily imply that it would be prudent to pull the rug out from under our monetary system. Contrary to seemingly appropriate solutions in competitive money proposals by some free-market advocates, as we will see, there would be costs in abandoning what integrity remains of our dollar-based money.

²⁹ That such a policy in 1937-38 contributed to a sharp downturn fails to prove that such a policy may be inadvisable today.

SEIGNIORAGE OR CUSTOMARY CURRENCY

Seigniorage is the difference between the value of money and the cost to produce it.—Investopedia

Of course, given the right to produce money, the greater a currency's venue, the greater the potential for gain. Hence global dollarization and use of dollars as central bank reserves allows a windfall gain from U.S. money expansion while mitigating the inflation impact from excesses. This works in parallel to foreign holdings of \$7 Tr. (March 2021) of Treasury debt (a total of more than \$27 Tr.) that help put a lid on interest rate lending costs.

Downright privatization of money would return the disposition of money to the public and ultimately remove it from the grip of the financial-government complex. But it requires legalizing the dollar trademark allowing private specie-linked replication of dollars to compete with empty-promise fiat dollars. The Mises Regression Theorem substantiates the dollar's origin in customary specie-based commerce, only coopted by political intervention in the market. Privatization means removing the conditions for Gresham's law—the government legal tender regime, as one necessary step in its rescue.

Money has been degraded by this monopoly regime: Ineffective restrictions on its issuance have caused market distortions; irresponsible Treasury borrowing has been enabled through Fed purchases of Treasury securities (debt monetization). For its part the Fed was privileged with a guaranteed income source through its operations and earnings on assets it acquires by creating credit; hence it is free from Congress's purse strings, only mandated to return its (after expenses) gains to the Treasury. Additionally seigniorage related income from the interest-earnings by the banking industry in general flows from new deposits disseminated as Fed bank credit, at no cost to the banks.

PRIVATIZING MONEY

Only privatization of the dollar can end the government's inflationary dominance of the nation's money supply. Murray N. Rothbard

Privatizing money means an end to new Federal Reserve notes or Fed credit creation. New currency would be provided by private issuers. If this were permitted, i.e. if laws making private issuance illegal were repealed, including repeal of capital gains taxes on monetary assets, the result would be not unlike legalizing counterfeiters to print dollars. In the transition, to avoid hyperinflation, preset dollar-quota printing rights might be auctioned off in phases by the Treasury, the proceeds extinguished in turn. We are here assuming throwing open the use of the dollar trademark now monopolized by law.

Lest the proposal seems conjectural, we need only cite the recent experience of Liberty Dollars promoted by Bernard von NotHaus, until closed down by Federal prosecution (pursuant to USC 18 § 486, 514 and other statutes).

With money legalized, Gresham's Law need no longer apply. Until, through competition, new entrants into money provision gradually forced the fraction of convertibility to 100%, the phased-in printing of new dollars would continue, increasing the supply, and reducing the value of the non-backed fiat dollars, and increasing the value of specie accumulated by financial institutions for reserves. Fiat dollars might well remain legal tender for taxes spent in lieu of the new redeemable dollars. Fiat dollars would continue in use because of contracts etc. but otherwise valued at an increasing discount (Greenbacks were discounted after their 1863 fiat issuance).

U.S. money lost an essential element of its commercially derived sound underpinnings with the Gold Reserve Act of 1934, when contractual rights to specie conversion in currency and deposits were abrogated and commercial bank gold reserves were commandeered for the Fed by the Treasury.

Being the only domestic money in circulation, Gresham's Law applies: legal fiat (bad) money drives out good. A different cur-

rency such as one where bills were redeemable in silver, but need not be spent, would be driven out of circulation, and because they contained little seigniorage, would not be issued in volume, other than as an alternative non-monetary asset, like many others.

But we will see how this natural law could also be the downfall of the dollar under circumstances that are well within possibility: Suppose this (Gresham's) law worked too much. Suppose I could get dollars that were even better than fresh ones, for instance, that were privately redeemable for 1/10th their face value in silver but still designated in dollars? Then I would certainly let go of and spend first my Federal Reserve Notes (as per Gresham's Law), they would circulate and win the day as the currency for a while. But if more and more of the partially redeemable currency were issued by those not subject to Gresham's law, i.e. those privileged to print these new dollars at no expense other than the setting aside of 10% of their value in silver, then the result would be faster spending of the Federal Reserve Notes as they were replaced by the better ones, and certainly these new dollars would also flood into the economy because they would be a 9/10ths windfall for the privileged private printers. Easily seen the result would be higher velocity and lower demand for the standard Federal Reserve Notes leading to their loss in value and eventual hyperinflation of prices in terms of these notes (i.e. a run-away discount on these notes). The important lesson is that these new dollar issuers would be able to capture 90% of the seigniorage. Of course the government would still gain seigniorage for its fiat money, yet would find it of decreasing value.

Money has been degraded by this monopoly regime: Ineffective restrictions on its issuance has caused inflation. Moreover, its policies have enabled irresponsible government borrowing through Fed purchases of Treasury securities (debt monetization). And to no surprise the Fed was privileged with a guaranteed income source. Because it earns returns on its assets it acquires by creating credit, it is free from congressional purse strings, only mandated to return its after expenses to the Treasury.

THE BAILOUT

A market system is a profit and loss system. Extra-market prevention of losses forestalls efficient change. Bailouts such as TARP (Troubled Asset Relief Program) unquestionably negate normal restraints by enhancing moral hazard and affecting credit transactions as if there were freely provided default risk insurance. As a whole this will allow for greater future risk taking than would otherwise be the case, just as Federal insurance encourages rebuilding in flood prone areas where private insurance is unavailable.

Some jump to the conclusion that speculation itself should be banned, even though speculators are the first to discover prices out of adjustment and so act to bring markets into line sooner than would otherwise be the case. This does not mean that speculation on the part of the public never overshoots, but expecting participants not to take their best shot in a world of uncertainty is off-base. During the recession following 2007 we had trepidation in the private sector over a deteriorating business environment due to expectations of tax increases. Speculators had discounted equity values based on these expectations. We should remember, as pointed out by Mises, that all entrepreneurial activity is speculative whether we like it or not. The future is never given.

There is an evident tendency to overlook smokescreen regulation instituted under the urging of crony oligopolists to further their own ends in stymying upstart competition (Allison, 2013).

FED AUDITING NOT ENOUGH

Unique in its operational status, the Fed harvests the funds from its own money creating policy role. It needs no appropriation—tasked with only returning to the Treasury the annual surplus (after expenses); it need not even take the trouble of budget-dumping at the end of the fiscal year common with other agencies of the swamp. Worse still, with this singular pecuniary independence, it is not proscribed from expenditures on lobbying

Congress against bills affecting it, of which is illegal for funded agencies.

Article I. Sec. 8 of the Constitution specifies issuance of Treasury notes: “to borrow Money on the credit of the United States;” and directs Congress “to coin money” and define its value, but not to issue fiat currency, nor to empower a corporate monopoly with a monetary legal tender framework. Of note, in a temporary interval of clarity, a Supreme Court decision (*Hepburn v. Griswold*, 1869) affirmed the unconstitutionality of legal tender laws. More recently a leading academic critique of the Fed, and 11 year economist for the House Banking Committee, bestowed his own Lord Acton aphorism to the Fed: “Independent power corrupts absolutely.” (Auerbach 2008, p.193.)

The failures of central planning in replicating market dispersed knowledge and replicating performance of decentralized ownership decision-making were revealed in Mises’ 1936, (1969) landmark treatment: *Socialism*, and remain unchallenged. The lack of scientific underpinnings in aggregate measures such as the GDP, CPI, the real rate of interest, and unemployment, all but invalidate macroeconomic modelling that policies rest on. Some may defend the Fed on the grounds that its failings result from ineptness rather than its institutional nature, but the possibility of improvement of its operations in this role is no pretext for such a role.

In reality the Federal Reserve System enables government deficit funding of the giant non-financial bureaucracies through monetizing Treasury debt and is the ready instrumentality that could orchestrate runaway inflation. This element of precariousness constitutes a crass adversativity to the wisdom of Montesquieu, enshrined in the founding documents to deliberately weaken centralized power. What delegate to the Constitutional Convention could have returned to face his constituents having endorsed Congressional license to empower a grand inquisitor, a grand war-maker, or a grand financial-sovereign?

We all remember Fed Chairman Ben Bernanke’s denial of a bubble in real estate just before the 2007-2008 crash. Of course

the Fed's guiding indicators were incapable of discerning imbalances: The subjective unquantifiable nature of money vs. asset allocation decisions renders aggregate indicators such as, capacity utilization, or GDP indeterminate.

Finally, indices such as the CPI do no better. Austrian economics had long revealed that without money and/or credit growth, prices tend to ease with beneficial effects (termed growth deflation) as productivity advances. This is how capitalism raises real wages (for example in consumer electronics). Oblivious to this, policy makers have for decades mistakenly aimed to elicit a small ongoing rise in the CPI.

In short, the case has not been made that monetary intervention in the economy has in practical terms been anything more than detrimental and a fictitious rationalization for the Federal Reserve System. Under its monetary authority the Fed has provided an unlimited source of funds available through discretionary bank credit creation. It has inadvertently distorted market interest rates initiating boom and bust. It has facilitated budget deficits by monetizing debt. It has provided the monetary base allowing bank profits on the windfall collection of interest accruing automatically without effort out of the magic of deposit creation. It has enjoyed the ability to promote its own interests as if it were royalty through expensing out of its money creating (seigniorage) privilege where it returns only its unaudited, unspent funds to the Treasury. It has enabled Federal spending beyond any rational means. Most damaging, it has arguably enhanced the embrace of policies through debt monetization that facilitated over almost a century of recurrent military adventurism.³⁰

³⁰ On this issue see Buchanan (1999) for a compelling critique of interventionism from an incontestably patriotic voice.

REFORM

Some have proposed monetary reform by setting a future date to target the dollar to gold at a range around its market price at that time as reflected in the futures market. Such a reform has been promoted as a step toward long-run dollar stability. An announcement could be made, for example, that in 60 days hence, monthly open market operations designed to change the monetary base by X percent would be automatic. At that time futures market prices could be used to target gold at the market price (dollars per ounce), then a deviation over \$20/ounce at the end of the next month in futures prices would call for adjusting the monetary base either higher for falling gold prices or lower for rising. Once confidence became widespread that the dollar would not be in jeopardy from over-expansive policies, other currencies could find a similar monetary haven in gold (Lewis, 2007).

Coupled with such proposals has been the scheduled decommissioning of the Federal Reserve System. This presumes that no outside imposition of a central bank need be foisted on the free market; banks need have no government-sponsored indemnification, but rather should be under market discipline. Money could include banknotes with whatever backing the market would accept. The Treasury would be unable to issue Greenbacks. Without the Fed or a monetary authority, the money supply would not be subject to the same degree of manipulation as would otherwise be the case. As now with the states constitutionally, no easy avenue for money expansion would exist.

Various observers have surmised that the monetary authorities will give up on the dollar and even try to nullify debt. In one conjecture the dollar is replaced 10 to 1 with new dollars, and debt is reduced by the same ratio. Others would posit only the reduction in value of U.S. Treasury debt and currency by that amount. A return to pegging gold at several times its current value at the same ratio as the dollar devaluation is seen as a solution by those who maintain that other prices would follow the gold price. But such conjecture is based on their mistaken view that gold is the real money. Such a default on obligations would need

to be a convincingly one shot action that would see a permanent reconnection to gold—to a re-monetization of gold. All of this is of low probability due to the disruptiveness of, and lack of authority for, such drastic measures.

Reforms could be phased in. This argues for resurrection of the dollar, not its demise, nor its abandonment through “choice in currency.” Under an extensive market dominated by a single currency, such as in the U.S., new money regimes would not be expected to succeed in replacing the existing dollar regime either by imposition or spontaneity, at least not without a thorough-going breakdown of the social order first. Thus, as Murray Rothbard (1976) reminds us, the dollar is “our money” and needs no competitive environment to survive. It has already proven itself under the process of the emergent market order. Austrian economists have demonstrated that free market economies have built-in stabilizers that are only made weaker, not stronger by government intervention.

Some ideas for avoidance of future real estate bubbles have been proposed. Innovative ideas often are found in the private sector. In privately developed and managed residential communities association fees are contractually arranged to provide utility and common use amenities for the member property owners. To the extent that fees put a drag on real estate price appreciation the intensity of any bubble is moderated. Similarly, higher land value taxes by municipalities and local jurisdictions can contribute to the same effect, especially when considering that much of what has been seen in appreciation can be attributed to underlying land appreciation in the boom. This being so rising tax rates would not impede development or structural improvement. A concomitant reduction in taxes on improvements has been suggested by economists favoring this kind of change to promote better development planning without the need for objectionable zoning regimes, but with the advantage of incentivizing urban renewal and dis-incentivizing urban sprawl.³¹

³¹ ...<http://commonground-usa.net/>. This site has a Georgist slant. It includes invaluable articles on the palpable successes of such tax reform, but not exclusive of some-

A related consideration with economic implications concerns superimposition of legal status to corporations. Apart from the blatantly irresponsible exemption by Congress of legal liability for firms engaged in activities such as nuclear power, vaccinations or journalistic libel protections afforded such giants as Facebook, there remains the whole question of corporate limited liability. Should there be no consequence to executives and shareholders if knowingly engaging in fraud or doing harm? Should politicians be able to capitalize on their policy actions with later remunerations from corporations that benefitted from their decisions?³²

TAXES: INCOME VS. SALES

Advocates of taxing consumption hope to replace the income tax with a sales tax. However, such a tax is problematic for a number of reasons well spelled out by Murray Rothbard (1970).³³

Rothbard, fond of no tax, demonstrated that a general consumption tax cannot be shifted forward (to the consumer); logically it is shifted back to the factors of production, land and labor. It thereby lowers wages and reduces the return (rent) on productive land and hence cannot be a direct tax on consumption as maintained by its supporters, but is technically a tax on income. Easy to see, the (sales tax) cost to the retailer cannot be shifted to

what more questionable articles on economic reform classified as 'progressive' but likely to result in unintentional regressivity. See also: henrygeorgeschoolofsocialsciences.com.

³² See essay Corporations and Errant Capitalism on depictionomics.com.

³³ To the extent that rent is a product of fortuitous land ownership then only an income tax or land tax would make rent a source of revenue. Profits on capital, on the other hand tend to be bid down to a normal rate of return through capitalization. We note George Reisman's (1998, 477-82) most useful redefinition of profit and wages, where it becomes evident that wages are a deduction from profits, and that the growth of capitalism has been the vehicle for increasing the rate of this deduction, not the other way around. Of course it is capital that has allowed for increased productivity of labor applied to production that has increased real wages by reducing prices of products. Contrary to Marx, labor doesn't produce products, under division of labor, producers and business-persons do by employing labor and capital in particular ways. Before division of labor, individual labor may have only produced a bare subsistence, but the profits were the entirety of the return or gain made by the individual. See diagram (*How capitalism promotes wages*) on depictionomics.com.

the consumer for, if the retailer could simply raise the sales price at no loss, he would have already done so.

Rothbard notes that for a general tax, applying upward sloping supply curves is inappropriate, these are for partial equilibrium analysis. Such an elastic (Marshallian) curve implies time adjustments in supply, whereas the appropriate curve is practically inelastic (vertical) because supply would be only reduced slightly (as lower wages would reduce employment only marginally). Ultimately, with demand given, and no essential shift in supply, a general sales tax cannot raise prices. Keep in mind, only an increase in the money supply (assuming stable demand to hold money) provides the mechanism for higher prices in general.

Rothbard disputes the contention that a consumption tax encourages saving: saving is undertaken to be able to consume in the future, which then would also be impacted by the same rate of taxation, hence there is no motive to save to avoid the tax.

In essence, taxes may only be shifted back to factors of production, not forward to the buyer. Mason Gaffney was aware of this in his 2011 treatment the land value tax (LVT).³⁴

Gaffney contends that land can be thought of as consumed when tied up over time by the title holder. Land and resources in their pure form are not products of labor, but a bounty of the earth, its use being a form of consumption. Think of a reserved city parking space or a theater seat reservation: each is a form of consumption, whether occupied or not, in that they use up the space-time element they command irretrievably.

Rent would be a measure of this consumption, but rent is not always evident. It can only be implied in cases where the owner gains the implicit rental return by his own use, as for a home owner. An owner might forego rent if holding the land vacant when banking on rising land prices.

Gaffney proceeds to express ground rent in terms of the average market return on investments, determined by the price of land times the real interest rate, standing in for rent.

³⁴ http://masongaffney.org/essays/Sales_Tax_Bias_Against_Turnover.pdf

As an example, first, the real interest rate does not always correspond to what is seen in the market, which is the nominal rate. Real rates have over long periods of time conformed to the social time preference rate which is 3-5%.

So using 4%, the proxy for rent on a \$100,000 lot would be \$4,000.

Avoiding, for practical reasons, the Henry George proposal for taxing rent 100%, better explained again by Rothbard (1962), a more workable 50% consumption tax on the rent for the lot would amount to \$2000/year.

Such income could be subject to the Sixteenth Amendment (ratified-1913):

The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several states, and without regard to any census or enumeration.

Applied to the title holder, whether individual or corporate, advocates for the (LVT) indicate that low income owners could be exempt up to a point, or be allowed to postpone accrued tax payments until the next sale of the property. If local taxes on buildings were eliminated in accordance with advocates of the LVT, in not every case would a home owner see a net reduction in property value (Mason Gaffney, in Daniel Holland (ed.), *The Assessment of Land Value*)³⁵ Overall, lowered land prices have the benefit of making this essential factor of production more affordable.

An estimate³⁶ for total private land values in 2009 was \$21.2 Trillion. If currently at say \$30 tn., a tax of 50% on estimated rent would yield yearly revenue of $30 \times .50 \times .04 = \600 bn. This could be supplemented by fees on titled broadcast frequencies, and bringing up to market equivalence mineral rights granted on public lands as well as extraction taxes and pollution fees. The initial tax

³⁵ http://masongaffney.org/publications/G1Adequacy_of_land.CV.pdf

³⁶ <https://www.bea.gov/research/papers/2015/new-estimates-value-land-united-states>.

of 2% on the ground value component of real estate would reduce the capitalized value of land so that once phased in, it would constitute 4% of the reduced market price, remaining at half the total yearly yield from land.

Replacing the current \$1.6 tr. income tax with a LVT, while reducing revenue³⁷ would save the economy an estimated \$409 Bn. (2016) of income tax compliance costs according to the Tax Foundation.³⁸

In sum, the so-called consumption or general sales tax is yet another (income) tax on productive factors; the LVT on rental income is an option for the replacement of the income tax and could be inferred as a tax on consumption.

Of historical note, Article VIII. —the Articles of Confederation, (1781), specified that revenue needs

...shall be supplied by the several States in proportion to the value of all land within each State, granted or surveyed for any person, as such land and the buildings and improvements thereon...

It not only wisely delimited Federal financing to a dependency on the states, it eschewed all other taxes, in line with sentiment in 1781. Rank and file participants in the Revolutionary War could yet keep alive the knowledge that this was a war of secession from the Crown and from its supportive base of landed aristocracy.

A land based tax shift need not take 100% of rent in taxes to deliver benefits. Even half of rental on land or a fixed (inflation adjusted) rate of 2.5%, for example, would, in most venues reorient land usage in beneficial ways.

Rothbard (1970) remarked that, if the tax were 100% of rent, the capitalized value of the land would be wiped out leading to a zero price for the parcel, and so no land value tax could be assessed. Were that the case then the next year (with no tax) the

³⁷ <https://www.usdebtclock.org/>

³⁸ <https://taxfoundation.org/compliance-costs-irs-regulations>

capitalized value would return, but the tax could only return in the following year. Soon expectations of alternate year reapplications of the tax on the parcel would arise. All of this pointing to the unworkability and volatility of the 100% tax scheme.

However, land is an original and necessary factor of production. Should the title holder merely abandon the title, and the land then became free to any user, the title could revert to the state (escheat) and so any new occupant could be charged the original rental established when the lot had been appraised before such tax was imposed. In fact this fee could be adjusted in the market simply by auctioning the right to occupy the space in terms of the requisite rental amount. In a sense the entrepreneurial assessment of its return to a user would arise out of the competitive market among potential users.

Rothbard's critique was of the 100% tax on rent. Hence, it failed to accede to any effect on softening land prices, or discouraging the speculative holding of land off of the market. It couldn't address under-use or no use (vacant) lands. For practical reasons implementations of the LVT have not been 100% except where title to the land is retained by the taxing authority or the State.

Proposals extant for tax reform then would be sure to leave at least a portion of the rent to the superintendence role of the title holder, any new tax could be phased-in to facilitate workability.

Free market proponents could embrace other policies. Certainly a phased reduction and replacement of taxes on capital gains, production, and wages, with fees on resource and land use, would not only be seen by some as more equitable, but would improve credit market confidence in investing and provide for future damping of real estate bubbles. While such tax shifts could be revenue neutral, overall a tax burden reduction would assist in recovery by not taxing productive effort.

A MORE INCLUSIVE REFORM

Free market reforms should not be applied out of context. Free markets, where voluntary interactions between assenting adults such as in trade and exchange is defended as an application of the Law of Equal Freedom (John Locke): **‘One has the freedom to do as one wills, provided one does not infringe on the equal freedom of any other.’** In this sense, all interactions take place because each participant expects to gain—thus a positive sum game (ex-ante).

Yet context is everything. If this social contract is introduced out of context of existing conditions then **‘equal freedom’** may be meaningless. A market system that allows ownership in slaves fails to rise to a standard of freedom. If through fraud, deceit, aggressive force, or conquest, the ‘any other’ has been long deprived of land to stand or live on, then no scope remains for his freedom.³⁹

So ownership titles to land, resources and what has been traditionally the ‘commons’ must be weighed and found compatible with long-accepted customary standards. A feudal society, although unjustly denying commoner property titles, nevertheless had a regime of complex rights and duties that provided stability, yet it had its beginnings in conquest or similar coercion.⁴⁰

³⁹ “‘The money question ...is a more important question than the land question. You give me all the money, and you can take all the land.’ My friend said, “Well, suppose you had all the money in the world and I had all the land in the world. What would you do if I were to give you notice to quit?” (George, 1885, 138)

⁴⁰ “The great landowner is the creature of the State;...When the State extends its conquests into hostile lands it plants its faithful soldiers as landowner on the conquered soil. When it annexes the domains of the Church it distributes them among a new territorial aristocracy. When it finally breaks the power of the clan it converts the clan chief into a landlord.” —Jenks, *Law and Politics during the Middle Ages*, 162,163. Quoted in Hirsch (1966, 238)

We have seen overconsumption during the expansionary boom. This results from a phantom wealth effect as a result of exaggerated asset values in stock equities, and phantom profits where costs were incurred before general prices had risen. Overconsumption occurs from the wealth effect in real estate due to land appreciation and the perceived increased value of buildings whether or not mostly attributable to land.

And, feeding the boom, we have seen excessive appreciation of these assets stimulated by the actions of Fed monetary policy and financial credit enhancement provisions heavily underwritten by government agencies, especially in real estate.

We have also seen other effects that occur in the wake of the boom. One of the phenomena common to corrections, the aftermath of the 2008 crash being no exception, is the withholding of spending on investments and instead the increased propensity to hold onto money, or cash or liquid assets. This was hoarding to Keynes, or his speculative demand for money.

Mises recognized that when investment prices thus collapse, the reason is not to be found in any paralysis of business or the reluctance to venture this capital, but in the realization that investment vehicles such as equities, commodities specific to investments being considered, and other capital goods also specific to investments being considered, were priced too high.

Thus, as Austrians have maintained throughout, the boom was not normal, the correction being the market's attempt to return to normal, or at least nearer to a more coordinated economy where investing occurs with reasonable profit opportunities.

But, when the Fed deliberately aims to keep interest rates as low as possible, one effect is to keep capitalized values of assets from falling. Simple discounting formulas reveal that long-term investments such as land are affected most. This appears to be motivated by the thought that the economy could be returned to an easy credit environment, to the seemingly preferable conditions of the boom.

To Keynesians as well as monetarists the boom is seen as normal and the correction as avoidable. Yet, they have no theory of the business cycle that explains the crash. Moreover they were clueless in recognizing the development of bubbles, boom conditions etc., and unlike the Austrians, failed to predict the advent of corrections (crashes) from the 1920's on. Keynes himself, a successful and shrewd long-term investor, took the full brunt of losses for each of the downturns of the market in 1923, 1929, and 1937. This could help explain why he seldom had good words for the savings-investment risk taker, and why he was so focused on his proposition that saving will fail to be invested during major slumps.

So it is not the least surprising that mainstream economists believe that low interest rates assist the economy in a correction. But, if asset values remain too high, then not only will investors need to wait to embark on projects, spending on consumption will fail to allow saving rates to increase to supply more funds for investments needed in sectors that contribute to balanced production. Instead, over-consumption that squandered capital and stymied capital formation in the expansionary phase will not be easily reversed.

We have seen that prevailing simple two-stage aggregate demand models cannot stand on their own terms and provide no theoretical grounding for stimulative spending. We have seen that, to the contrary, stimulative spending, being more akin to consumer spending, detrimentally competes for inputs used by private producers.

But no advance in sophistication of demand management techniques can supply a justification for new extraordinary powers now accruing to the Fed in industrial policy and management and which has failed to move the economy away from its course toward plutocracy.

Deficits cannot be seen as only kicking the can down the road. They also produce current and ongoing deadweight losses in wealth and productivity.

Models limited in dimensionality fail to analyze these effects. Models must decompose variables such as national income, capacity utilization, and investment, and so on to reveal significant variations otherwise undetected in averaging or aggregating.

By 2007 the economy had long been in an untenable state. Abrupt withdrawal of government support for long dependent financial institutions might have contributed to collateral damage to the whole economy and also may have elicited unwise political over-reaction from Congress. Not for over 75 years had there been such a potential for depositor loss of confidence in the banking system. What is more, a Roosevelt style bank holiday that could well involve suspension of credit card transactions needed on a daily or even hourly basis would have been disruptive and unworkable for a modern economy.

Nearly a century has transpired since banking and monetary affairs were of largely market forces. As intervention increased, there were assurances at each step away from market discipline that the congressionally created quasi-government-banking system would bring stability. Yet after years of stimulation and over-extension the result was less stability. In the realm of legislated regulation less is more.

Mainstream (Neoclassical) economists had fully embraced central planning of the monetary sphere. Here alone they uncritically participated in engendering a total marriage of money and state. Government was assigned nearly total command over the sphere of money, no less so than in otherwise repudiated socialist, national socialist, or corporatist regimes.

The modern economy relies on the functioning of a number of elements in its infrastructure. Loss of any one element, whether the electric power grid, oil, interstate highways, the internet, or the monetary system, jeopardizes the entire system. Unlike the monetary system, other key elements of the infrastructure enjoy redundancy provided by the competitive system. But once government controls any element, an inflexible monopoly structure emerges. We have no redundancy in money provision in this

economy. This element of the infrastructure constitutes an experimental scheme oriented towards short-run political goals.

While we see that spending for (consumer goods) under easy credit conditions occurs also in booms, spending on present goods is only part of consumer expenditures. This is misunderstood simply because aggregate measures of consumption obscure the details. Standard practice separates household income and expenditures from business. But these are not economic categories, rather social categories. So by choosing the social category of households that exclude business we artificially construct categories that can obscure analysis.

Expenditure on a consumer durable such as a washing machine constitutes more of an investment in the future productivity of the economy than a business investment in a soft drink vending machine. Likewise personal spending on new tires might be more of an investment than a business expenditure to advertise a stay in Los Vegas. The future productive capacity of the economy depends on what kind of expenditure we undertake, not whether it is a household expenditure or a business expenditure.

For a progressing economy more saving and investment promotes growth, but the composition of investment must not be distorted by impermanent financing misconstrued by borrowers to be permanent as if from a higher saving rate. This results from the false saving of money injections. Thus, under boom conditions, the consumer (investor) also spends with the misapprehension that effects of a plentiful flow of funds into the loan market will continue; vacation homes were deemed to continue to rise in value; credit was extended easily to unqualified consumers for investments in cars, houses etc., that were not necessarily for present consumption (investment) but simply too ambitious for the subprime individual investor looking to invest. Likewise for a business investing in automation that required continued investment no longer affordable at higher interest costs. Again, these malinvestments were out of line with the reality of credit risks and actual savings available.

In early 2009 Congress passed a spending stimulus bill that amounted to almost a trillion dollars. We are to believe that spending on current consumables must be increased in a recession, when common sense tells us that first you produce more, and then as a result of more income and wealth spending increases (economists used to know this as Says' Law). Hence, we had overspending in one favored sector at the expense of other sectors.

The mechanisms of such fiscal policy economic distortions, if not easy to follow are at least fathomable. For the average observer, monetary policy distortions are more difficult to comprehend. This leads us to the arguments consistent with the theory that monetary policies initiate business cycles through easing credit to accommodate over expansion of the economy.

We can recap the foregoing by revisiting the downturn. The boom ran out of steam. The Sept. 29, 2008 Economic Rescue Act of Congress attempted to ease credit conditions at the point in time where markets recognized that rising price trends in certain asset classes had reversed. Once price increases leveled off, under the inexorable laws of mathematics, investments that depended on built in appreciation had to lose value. Following the abrogation of free markets and free banking that resulted from installation of the Federal Reserve—and following the process of price inflation and money dilution managed by this monetary regime—the economy suffered significant disruption of coordination in the price system. Secondary effects of such monetary policy driven expansion, mainly occurring in the loan market, encouraged leveraging in the financial markets and over-confident redirection of business spending. Easy credit stimulated longer life durable asset investments, such as autos and housing.

The train of events that produced post World War II price inflation began in money inflation, in the dilution of the money supply affecting specific prices differently. Unobserved effects on a micro-economic level produced asymmetric macro-economic dislocations in production. By using oversimplified models with aggregated variables modern textbook aggregate demand models

failed to integrate these micro-economic effects and so failed to signal internal damage to the economy. For instance, a variable that measures the totality of capital stock misses important changes in its relative composition. Similarly, employing a single measure for the price level and spending fails to give weight to important asymmetries.

Decades of credit or financial stimulus initiated false confidence in investment returns. For every overinvestment seen there was an underinvestment not seen; bailouts and special legislation encouraged moral hazard excesses and risk in bubble prone areas such as equities, housing and financial intermediation; regulation through market discipline was overridden. Stresses inevitably grew until imbalances reached a critical state. Just as we saw that fire suppression contributed to eventual catastrophic fire events, so do we see accumulation of higher levels of risk prone debt in banking carried out under the umbrella of federal guarantees, and a Federal Reserve System over-reach making for magnification of market excess and correction. As Mises warned repeatedly, every artificial boom has its reckoning.

Fed policy now appears to have been too accommodative in the first half of the 2000's decade. Price inflation was mistakenly deemed under control because of incomplete attention to some of the real estate and equity market appreciation not factored into price indices. Indices were also subject to a decade of unexpected productivity increases that provide a natural downward bias to average prices (growth deflation). But such softening of the price inflation numbers did not prevent the effects of money injection or price inflation elsewhere. This means that the normal non-inflationary price level trend should have been allowed to be negative.

Contributing to the boom, to the credit stimulus and over-extension, were money unit supply increases as well as money demand reductions, along with progressively greater confidence in debt financing. Clearly, the gradual infusion of bank credit money was instrumental in producing a climate favorable to debt and to eventual development of asset bubbles. This was only pos-

sible under artificial constructs such as the Fed and FDIC taxpayer backstops. These contributed to the endemic erosion of purchasing power of the dollar since World War II.

Absent perfect knowledge of the future, economies unregulated by market discipline will continue to progress, but with volatility. Natural tendencies towards optimism or pessimism cannot be eliminated even by well-intentioned renewed intervention. A regulatory authority has no better source of information than does a market player.⁴¹ Further, a regulatory body lacks competitive checks and balances over its powers. It does not risk its own capital, and possesses no inherent automatic process for eliminating its own unsuccessful contribution, as is the case for market participants. What is more, the far-reaching policing powers of the state have a history of succumbing to influence and to being too often subject to capture by private interests hoping to profit from special favors and from laws they promote to suppress new competition.

One need not advocate that the government immediately pull the rug out from under all of the economic props that have been erected. A run on banks could ensue without FDIC backing. It would upset markets accustomed to our money system which, even though mismanaged and flawed, would need to remain functional during any transition.

Fiscal and monetary policy of stemming downturns may have been suppressing true recovery for decades—supporting a false economy that continued to be diverted into boom type malinvesting. Additionally, outsourcing, along with transnational corporate avoidance of the world's highest corporate tax rate, was only recently addressed by tax reform. Since corporate taxes are a form of double taxation it makes sense to reduce these taxes. Yet there is some validity in the idea that not all of the income to

⁴¹ For advocates of more regulation this does not mean that some regulation does not have success in limiting irresponsibility under the presently structured regime of jurisprudence. There currently exists a lack of adequately developed consumer and environmental protection, even though, as some would argue, such protection might have been more likely to evolve in a business environment relying only on insurance and tort action uninhibited by statutory supremacy.

the rentier-proprietary class is earned, but some rests on privilege. After all, corporations own most of the high-rent urban property square-footage that escapes its true share of cost from myriad locational external benefits of infrastructure etc. paid by municipalities.

An excellent point made by LVT (land value tax) proponents who seek taxes on land rent or potential land rent, is that corporations cannot escape site value tax burdens by out-migration. In the last decade, small-business—with high labor to capital ratios, have been beaten down by statutory encumbrances initiated to advantage the corporate giants who now own Washington and enjoy scale economies in tax and regulatory compliance and litigation.

Fomenting the last bubble in finance on Wall Street were complex regulatory work-arounds and seemingly unintended loss of control from agency oversight. For decades policy makers have been anything but hands-off, with ever increasing paper-work and time diversion requirements repressing productive business; the whole Main Street economy has underperformed. Because this burden more severely impacted the smaller or aspiring enterprises with higher marginal costs, employment suffered. Hence, it is no surprise that although media organs are towing the line for more regulation in general, more turns out in the end to be effectively less. New legislation invariably ends up covertly advantageous to the crony-oligopolist class, while the real discipline of risk aversion has been waived by decades of too-big-to-fail bailouts and rescue for those at the top. Those that say they want to put the disposition of our monetary system under the free market mean that it should be handled by those who would be literally responsible. Banks on their own would individually face the possibility of disciplinary bank runs—a veto power wielded by the people.⁴²

⁴² Implementation of a supermajority requirement for new legislation, coupled with sunset provisions for existing laws, would protect in some measure a wide range of activities that could be left to the people and their (more flexible) common law civil resolution of disputes. A reminder that it is the efficacy of the legislative democratic process in lawmaking responsible for the Drug-War and its depredation on minority

We cannot eliminate waves of credit and asset appreciation and correction, but we can let the small fires burn and reintroduce regulation in its most effective form: market discipline. John Kenneth Galbraith (1990), no champion of the market, noted that little can be done to prevent the next crash: *“Regulation outlawing financial incredulity or mass euphoria is not a practical possibility. If applied generally to such human condition, the result would be an impressive, perhaps oppressive, and certainly ineffective body of law.”*

poor with the highest incarceration rate of any regime in the world. In stark contrast to our excessive body of poorly crafted legislated statutes, a tort oriented system of jurisprudence never concerns itself with private non-violent non-fraudulent matters between consenting adults because no damages can be claimed absent a plaintiff.

Part II

The State of the Dollar

MONEY

Money, the ultimate means of payment, may be defined in its simplest form as cash or currency, plus demand deposits (M-1).

Total demand deposits under fractional reserve banking is largely debt money; Federal Reserve currency is not, that designation is a fiction that needs to be exorcised. Only due to its earlier commodity origin does it function as currency. Notionally residual commodity qualities to checkable deposits and to our currency have been retained. These would not be money should such quality be lost. Fiat money has expectationally less resilience under stress than legal commodity money involving titles to real assets. It can be designated as debt of the issuer, but utterly lacks that quality in the final analysis. Try to redeem something of value from the issuer (the Fed) with Federal Reserve Notes.

All values are based on subjective utility. No goods have objective assurance of value in the last analysis, but for money, whether or not fiat money, some link to goods of independent value is necessary.

Assets that are a means of payment provide the basis of the money supply. In a crises notional changes in risk assessments and perceived liquidity attributes of financial assets (as well as other assets) transpire. We will see how these factors, as well as changing demand for money, affect prices and spending allocations.

First, money is far from the root of all evil—that could only apply to the love of, or obsession to amass, money. Money is beneficial because (free) trade constitutes an a-priori win-win activity (as perceived by each party ex-ante). Trade promotes peace for this reason. ‘When goods do not cross borders, soldiers will.’ – (Frederic Bastiat).

We know that money acts as the barter good for all other goods in the market. We know that money liberates (exchange of) goods in the market from the inconvenience of direct barter. It solves the problem of the double coincidence of wants that is necessary under barter for one to find a buyer of one's goods or services.

Second, we know that it provides a means of accounting where assets, and exchange of goods and services, can be reduced to a single measure.

Third, we know that money is not consumed or exterminated as are goods and services to one degree or another. It is not desired as a direct means of satisfying ends or needs. It is not used up.

Fourth, whatever the supply or number of units of an established money the function it plays in the economy is invariant. A similar country that has double the money units of another country would have roughly twice the price level, but experience little difference functionally.

Fifth, if a country with a stable economy is in transition to a state of greater or lesser supply of money there are consequences due to the disruption of its use in calculation, and due to distributional disparities, as well as due to location and due to individual differences in income, wealth and asset disposition which includes differences in disposition over time.

Sixth, money is demanded for transactions, speculative, and store of value purposes. These functions, however are all subsumed under its use as a means of exchange. These demands can be separate, especially in hyperinflation when the transactions demand increases, and the other demands decrease.

Seventh, the price of money is what it can be exchanged for, its purchasing power. It is thus measured best by the general price level, though inversely.

Eighth, in using the term 'demand for money' we mean a schedule or demand curve that may have a variety of quantities demanded at different intersections of the supply and demand for money. Hence if supply is fixed (inelastic), increased demand

(a shift out in the demand curve) can result in only a rise in its purchasing power (i.e. generally a fall in prices).

Ninth, money is a stock, not a flow. When the timing of income flows are matched to expenditure needs more efficiently, and when clearing-house techniques improve, such as with credit cards, the demand for money balances is reduced. Confidence in near monies and other liquid assets can also reduce this demand.

Tenth, the demand for money affects the price level. Reduced desire to hold money raises prices and hence reduces the real money supply but not the number of units of money balances. The number of units is the monetary base controlled by the monetary authority in contemporary monetary regimes.

Eleventh, the price of present money is not the interest rate. Interest balances the exchange of present for future money, it could be seen as the rental price of money.

Principles texts inform us that in ancient times money originated only from the most trustworthy and tangible of assets such as salt, cattle, silver or gold, chosen in the process of bartering commodities for indirect exchange among commodities. In the 20th Century money retained its value out of customary trust in its continued acceptance even after its juridical ties to tangible commodities were severed. In 1934 U.S. money was reduced domestically to fiat money by decree.

Rarely do textbooks emphasize that money must be based on previous arrays of prices established by the market (Rothbard 1962, 274-5). Few texts state that the removal of commodity status from the monetary system was deliberately and surreptitiously engineered; that the change came about as a result of a politically and bureaucratically driven process.⁴³

Whether seen as a conspiracy or not the conversion derived from the natural play of events arising out of incremental decisions. The steps taken were those that worked best for bureau-

⁴³ In Mishkin's *Financial Markets* text he evades the issue by confining his comments on this fundamental point to one statement: "...currency evolved into fiat money." (2008, p.53). Samuelson denies its necessary commodity origin in his text—*Economics* stating only that: "...money is accepted because it is accepted." (1964 p. 52).

cratic and special vested interests charged with determining management outcomes—in this case involving lucrative benefits to a subset of the economy. The removal of convertibility ties to gold in 1934 was the consequence of earlier removal of market arrangements in the banking industry to make way for (monopoly) central banking.

Abrogation of contractual entitlement to commodity money belonging to depositors occurred as a culmination of a series of moves away from market and common law based money. Dishonoring promises to redeem deposits and notes conflicted with a responsibility to protect property rights; but this was the government's action in 1934. It resulted in the loss of the people's monetary gold currency entitlement.

Gold confiscation, under Roosevelt largely consisted of requiring all bank holdings of gold to be consolidated at the Fed. This deprived depositors of their contractual link to gold (which constituted deposits up to that time). It was not a net loss of financial assets for those individuals at that instant. The losses were spread out into the future and continue today. Such a move was predictable given the on-going drain of gold reserves that were being redeemed with dollars.

For the public the impact was not generally loss of personal property in gold coins, but rather a loss of specie status for their money balances held at banks. For those who relinquished their physical gold the policy constituted a reverse redemption at \$20.67 per ounce.

Once the Treasury was in possession of the gold the official price was reset at \$35/oz., which is a devaluation of the dollar in terms of gold. Up to that time the price of gold had been controlled at \$20.67/oz. Price inflation (dollar depreciation) had not been a fact of life as it is today, gold was not an inflation hedge as it is today.⁴⁴

⁴⁴ Neither were economies sequestered from the advantages of a global monetary system, which ruled from 1820 to 1914 over a period of international peace and expansion of trade.

Under its fiat money regime, absent legal assurances of convertibility, there exists today a diminished perceived need of the government to acquire gold. After 1934 dollars were no longer redeemable in gold for U.S. Citizens, nor for foreign central banks after Nixon formally defaulted on the Bretton Woods Agreement in 1971. This important difference explains why gold confiscation by the government is of less concern today.⁴⁵

The 2007 credit crises and downturn draws attention to discoordination in our attenuated market system and financial markets.

But an attenuated market system does not characterize our system of money. It is far removed from a partial intervention of government into the market. Rather it is a monetary system run by the Treasury and the Federal Reserve, which though embodying elements of private monopoly granted power, is the quintessential model of statist central planning and market abrogation.⁴⁶

For a market economy, virtually the entire pricing process for transactions concerns money. Central planning disruption of the market order brings us to the largely neglected but cogently formulated Classical-Austrian theory of money. The related business cycle theory developed by Ludwig von Mises grew out of previous writings by Cantillon and Wicksell. The Cantillon effects, for non-neutrality of money, and Wicksell effects, regarding the forcing of market interest rates below the natural rate. These insights generally have not been incorporated into the standard textbooks and curricula.

Contemporary standard treatments of monetary theory universally neglect yet another essential (Austrian) insight known as the *Regression Theorem of Money*. Its formulation constituted von Mises' answer (Mises 1912) to the money circularity enigma, the solution of which integrated money into marginal utility theo-

⁴⁵ It follows that numismatic coins (safe from recall in 1934) would be of less advantage as a haven over bullion today because even bullion coins are unlikely to be recalled.

⁴⁶ Nevertheless, the dollar remains foundational to the economy. As we will see, for those who desire implementing the gold standard, such facts need not imply reform measures that specify abandonment of the dollar.

ry. Money may be visualized not as exchanged in a timeless circle, but in a spiral through time. It thus escapes the charge of circularity in establishment of its price or value. Money is accepted not because it is accepted but because it has been accepted in the recent past, the recent past continually progressing in time. Thus money's existence is always incrementally traceable back to a time when it was a commodity with independent commodity value based on marginal utility before it was employed as a medium of exchange.⁴⁷

Explanations of mutual determination or circularity are unnecessary and conflict with the historical observation that for extensive markets no new money can be or has been established without an initial tie to commodity money. Unlike our pricing of goods based on current supply and demand and marginal utility, money is valued retrospectively, by what one remembers its exchange value was in the immediate past. Money, unlike other goods, remains in its original barter state.

This understanding explains why a government, although able to produce more units of a currency or money without cost, can inflate but cannot create money; cannot originate money. It can remove the promise of redemption. By fiat it can make money a legal tender. But legal tender status does not make money immune from unit depreciation. The social utility of money as an institution whether or not transformed into a fiat currency is separable from such effects. Fiat currency provides the social functionality of money; it lacks reliability for maintenance of its value.

Contracts can vary as to how many dollars constitute a debt. Fiat money lacks the legal (albeit unworkable) guarantee of being officially tied to a compensating price index. In his 1912 *Theory of Money and Credit* Mises incorporated Irving Fisher's now well-established maxim that expected depreciation in the value of money may elicit an interest rate premium, which is the market's way of modifying the value of the legal tender unit over time.

Money only retains its unit value from notional causes or linkages originating in an economy. Once a money or currency has

⁴⁷ See note 41 above.

been juridically divorced from its commodity origin, such as with modern fiat money, trust and customary habit may yet be able to sustain a long period of its acceptance, unless its supply is increased too rapidly. In the instance of one all-pervasive price system, such as in the U.S., fortunately customary habit has endured.

The juridical decoupling of modern U.S. fiat money from its commodity nature overturned lawfully established popular and commercial grass-roots based choice in money. To maintain public trust authorities replicated the appearance of the earlier redeemable bills changing only the wording on them. One need simply compare the similarity of the new Federal Reserve note to the gold certificate of the 1920's and later to the silver certificate. This reversal of trustworthy financial practice long customary in business, violated the fiduciary trust vested in the monetary authority by the people. The Preamble to the Constitution recognized the people's sovereignty—"We the people...do ordain and establish this Constitution..." The precedent of due process limiting the arbitrary concentration of power had been established, not only by the U.S. Constitution, but from precedent as far back as the Magna Carta in 1215 at Runnymede, which included that "No freeman shall be...disseized...or in any way harmed...save by the lawful judgment of his peers or by the law of the land." Legislative removal of ownership rights to gold, represented by redeemable deposits, was an abrogation of contractual entitlement to ownership violating the law of the land as Constitutionally instituted.

The Constitution was written in language accessible to the general public because it was expected to be a document between the government and the people, not to be verified by its own Supreme Court, only to be adjudicated by the court. Hence, the amendment process allowed for changes and clarifications determined by popular consensus, without Supreme Court approval.

Article. I. Section. 8, states: "*Congress shall have the Power ...To coin Money, regulate [make regular] the Value thereof ...*".

Subsumed in the section on standards of weights and measures one can hardly read it as granting the power to make legal tender inconvertible national bank notes. If that is a good idea then the amendment process is available to proponents of such a power. Note that the “Value thereof” refers back to the coins, and cannot be stretched to include even paper notes, much less fiat money.⁴⁸

The significance of this *coup* is not measured by the injustice of requiring the sale of gold to the government but by the disruption of an institution of emergent social order. Criminalization of gold ownership—the freely chosen means of payment, absent a constitutional amendment, constitutes usurpation of the sovereign discretionary power residing in the people. Removal of entitlement was a reversion to the pre-constitutional autocratic disrespect for the principle of the rule of law. To this day such deficiency prevents social progress in the uncivilized regions of the world.

In short, considering that demand deposits were in effect entitlements to gold, the removal of gold reserves in 1934 from commercial banks to the Fed was an act of appropriation. Such action was a reaction to private gold withdrawals that threatened to take down the reserve base of a fractional reserve system unable to sustain this drain.

In a similar context, brought about by the indiscretion of U.S. money inflation after Bretton Woods, Nixon believed he had little choice but to stem the gold drain to foreign central banks by closing the gold window (that had remained for foreign central banks), as was done on August 15, 1971. Once ties to gold were severed the monetary system was under no threat from a gold drainage. Hence ownership could be legalized as was done in 1974, and as were gold contract clauses in 1977. Absent a reform program and without the need by the government to gather in private gold holdings we are likely to see other types of control rather than confiscation.

⁴⁸ For thorough in-depth confirmation of this essential point see Timberlake (1993), Ch. 10, pp. 129-145.

This monetary coup d'état achieved a freeing up of the ability for the monetary regime to manufacture money at will, for the influential rather than the populace as a whole. Clearly this power upended the intention of the General Welfare Clause against favoring special interests, as it was power not restricted to what was of benefit for the *general* welfare.

FIAT MONEY

By the 1870's it was known to economic science that, for the individual, more money increases utility, but for society, more money fails to improve overall utility. Thus, the functional supply of money cannot be enhanced by fiat but only diluted by replication of units. Just as a kettle of soup can be diluted with more volume of water but with no added substance, each cup worth less, the number of dollars can be increased with no net addition to social utility. This is evidenced by price inflation with each dollar worth less.

Of course, special advantages accrue to those who receive the new money first. Monetization of debt allows for governments to enjoy the same benefits that accrue to a counterfeiting ring. But just as with counterfeiting (since in its economic effects monetization is a sub-species of counterfeiting) the benefit to the counterfeiter is exactly paid for by the slightly higher prices faced by everyone else. If legal it may not be constitutionally lawful and certainly not economically distinct from counterfeiting. The first consideration in analyzing money inflation should be that loss of purchasing power constitutes a form of tax.⁴⁹

⁴⁹ If prices double about every 15 years that amounts to about 5% per year 'tax' on the money supply outstanding. This can also be seen as the money supply constituting the public's credit to the government (without interest) as creditors suffer the cost of inflation. Other creditor-debtor considerations in the economy as a whole (including government interest bearing debt) pertain to unexpected losses to the creditor. Under money and price inflation these considerations may or may not be equitably balanced through the interest rate price premium. Thus if an individual holds an average money balance of \$1,000 his/her tax would be \$50 per year.

In economic terms money is delimited to **that medium of exchange or currency in which the array of prices is expressed in a market venue**. The supply of money is constituted of currency plus those assets treated as convertible into currency by the public. Narrowly this is **M1** (currency and demand deposits or checking accounts less bank reserves). **M2** (M1 plus various savings accounts and funds) might serve as one objective definition under normal circumstances. We may designate a useful definition of the money supply as our notional money supply (NMS) including only M1+savings and MMD accounts.⁵⁰

Under conditions of expanding money supply (such as M1) gradual price increases in all sorts of assets eventually contribute to a boom climate of confidence. Then the wider definitions of money can easily increase as more and more of these assets such as money market funds or even treasury bills are added to portfolios, keeping in mind that the narrow money supply measure isn't reduced when these are purchased. If these are added to one's measure of the money supply then it would show more inclusive measures as M2 or AMS, or MZM increasing. If one does not wish to use a more inclusive measure for money, then one could conclude that the demand for M1 money fell, other things being equal.

Similarly during the boom other assets can become subject to rising price expectations, speculative activity, or simply increased demand due to reduced perceptions of systemic risk in markets, but absent M1 expansion by the monetary authorities general price levels won't rise, i.e. there would be no reason to expect a significant increase in the "velocity" of money (or more appropriately a decrease in the demand for money) that would generate more spending for goods and services in general. Movement into

⁴⁸In 2015 M2≈ \$11.7 Trillion (almost 3 times the monetary base of \$4.1 Trillion), NMS=\$10.6 Trillion, using the author's definition found on depictoeconomics.com. I have elsewhere designated this as Austrian Money Supply (AMS) which differs in some respects from that used by the Mises Institute. Such a measure approximates that which the public treats as its money stock.

near monies may be a rebound from subpar investor confidence due to a preceding contraction in credit common to fractional reserve banking systems.

People consider or choose various measures to serve their liquidity needs. These can include at sometimes strictly currency, or currency and checking (demand) deposits, or at other times “near monies” such as CD’s, money market mutual funds, or even any asset perceived to be liquid (e.g. businesses increase inventories). While we have no need to expand the definition of money, certainly the employment of these near monies allows for reduced desired holdings of money proper.

These changing preferences among various vehicles for liquidity needs moreover present a dilemma for policy makers attempting to stabilize the supply, and likewise for those undertaking efforts to quantitatively project effects of money supply changes on the economy.

To recap—if we characterize money by its subjective utility as a means to certain ends, its physical composition responds to its notional utility as an asset used as a means of payment or one easily convertible to a means of payment. It is not physically fixed. Attempts at objective definition outside of this context weaken this clarification. The monetary aggregate constituting money may change with the financial climate, with the business cycle.

Alternatively, depending on the perspective, one could say that money should be objectively defined as a certain set of instruments such as M2. If so we would then observe induced volatility in what would be the demand for money over time as the business climate changed.

Thus, using the subjective definition of money, as the public makes choices in types of money, money demands change in turn, as a consequence so does the functional or widely defined money supply. People endeavoring to maintain a level of liquidity may perceive a heightened risk from holding balances in an uninsured savings account and in response may transfer those hold-

ings to their checking account. Thus the functional money supply would be reduced; M2 would fall with M1 unaffected.⁵¹

It follows that to analyze liquidity preference in money balance demand we first must choose which “money” we want to observe. And to understand the effects of changes in money demand, we simply need to keep in mind which assets command the public’s money balance choices at any given time.

An abrupt fall in confidence might result in a sell-off of assets and a greater demand for liquid balances in their most liquid and risk averse form such as M1 or M2, as was the case in 2007-2009; M2 is presently constituted of insured bank deposits including money market funds and currency.

During the downturn starting in 2007 we might therefore say that the supply of money most broadly defined had fallen while demand for narrowly defined money had increased. Since then some of the flight from illiquid assets was into narrowly defined money and short-term government bonds or Treasury bills which have qualities of liquidity and safety.

Such a flight to money balances or liquidity by business should best be seen as a reaction to the imbalances revealed with regard to the post-crash overpriced input and factor prices in the structure of production. The cause of the contraction not arising from the (Keynesian) flight to liquidity but arising from the discovery of overpricing in capital assets or commodities now perceived as

⁵¹ As a technical matter the narrowly defined money supply -M1- is not affected by these choices—when a check is written to reduce a person’s account balance that check predictably finds its way back to the banking system as a credit in another account. Only the monetary authorities have any significant effect on the potential level of M1 (absent a run on banks for currency).

risky.⁵²This is how the policy induced business cycle spreads into credit markets.⁵³

We observed a similar phenomenon in the increased discounting of securitized mortgages that were considered good investments up until the boom lost momentum and demand for risky investment vehicles gave way to demand for vehicles more risk averse.

UNCERTAINTY

Economists use the simplification of a state of equilibrium to assist theoretical analysis and explanations. These considerations place money as the quintessential element in a developed market system, the necessity of holding money balances diminishing as we move closer to perfection in knowledge and thus to a hypothetical state of balance in the economy. The hypothetical final state, only approachable but never attainable, retains the economic condition of shortages for goods, but money balances disappear. A world of perfect equilibrium and predictability would allow each income earner to schedule investment maturities to match payment needs, eliminating the necessity to hold money balances. Money reserves would not be held as they are now for unforeseen occurrences as uncertainties are assumed away. A perfect clearing-house would receive scheduled deposits out of investments exactly when needed for each debit. Recent innova-

⁵² "But it is a serious blunder to believe that the fall in commodity prices is caused by this striving after greater cash holding. The causation is the other way around. Prices of the factors of production—both material and human—have reached excessive height in the boom period. They must come down before business can become profitable again." Mises (1966 p568)

⁵³ Keynes believed that a fundamental cause of the 1930's depression arose from increased liquidity preference and lack of a will to invest, a view not supported by Austrian economists who reject the idea that demand for bonds was an inverse function of the demand for money (liquidity). (Rothbard 1963, 41-3)

tive measures reducing float through electronic debiting and through use of sweep accounts suggest how this operates.⁵⁴

Credit cards, used as a line of credit, provide a convenient form of borrowing by allowing users to run a negative balance. They have evolved as financial innovations that allow users to reduce money balances bringing the economy closer to coordinated payment perfection. The money balance needed by the credit card provider to meet payments can be lower on the average per customer because of a clearinghouse effect and because of the ability of the provider to coordinate total credits with debits for large numbers of people.

One could, at first thought, expect that under conditions of near hyperinflation that credit cards might allow for provision of payment needs through providing liquidity as reduced average money balances would be inadequate for needed transactions. In fact, such an attempt to raise credit and debt balances would surely ensue to the extent that interest charges on accounts were less than the going rate of price inflation; people would naturally postpone paying down debt. But precisely for this reason credit would quickly be unavailable as soon as interest charges needed by the credit card company exceed the legal ceiling on interest. This, of course, reveals one detrimental aspect of such price controls.

In sum we might look at the theory of the demand for money as better expressed as a theory of the demand for a stable level of liquidity, or mix of money and easily convertible near monies. For an individual a narrowing of this portfolio away from near monies and assets reflects increased risk aversion. As risk of conversion of these to actual money as a means of payment rises we see that the supply of very broad concepts of money can fall, this reduction being apart from any action by the monetary authorities. This is so even in real terms, abstracting from changes in

⁵⁴ This equilibrium concept serves as an analytical aid not as an expectation for the economy or a measure of the efficacy of the market system. Such a state would include an infinitely low demand for money and thus an indeterminate price level which goes to prove that caution should be exercised using artificial equilibrium states in modelling the economy.

price expectations. The more conventional method is to look at these shifts as changes in the demand for money under a fixed definition of money such as M1 or M2. But this would imply that behaviorally the public varies its demand for money pro-cyclically, that is, the demand for money rises in a contraction, tightening money availability.⁵⁵ Liquidity needs can result in volatile levels of demand for specific assets depending on their varying ability to provide safety and low risk liquidity.

Given these definitional concerns we should keep in mind that money evolved naturally and peacefully as a tool or aid to what would be in its absence a cumbersome barter economy. Money thus helped lift society to a higher state able to transcend basic survival needs, requiring less toil and effort for the essentials of life.

We have seen that by its nature money cannot be separated from a time oriented valuation process, and that modern money policy often negatively impacts the economy in ways functionally indistinguishable from organized counterfeiting; the Federal Reserve can be said to engage in quasi-counterfeiting, but not counterfeiting per se because no fraudulent claim is made as to Federal Reserve Note convertibility, and again, is why Fed currency (unlike bank credit money) is not debt money.

During the decades leading to the 2007 financial crises, when general optimism drove credit beyond what was prudent, the system of government guarantees and assurances and stimulus programs were not identified as excessive by managing authorities. Such myopia should be no surprise given the lopsided advantages and power that expansionary money and credit policy elicits.

⁵⁵ The financial press explains the phenomena as a fall in the *velocity* of money usually a ratio of GDP over MZM, which was approximately 2.5 in 1995 falling to 1.5 in 2009 and 1.4 in 2014. We indicate limitations to the usefulness of the term *velocity* below.

GOLD

Money originally emerged out of the choices of cooperating individuals. It emerged to assist buyers and sellers to reduce shortages of needs and goods through peaceful exchange. As an intermediary it facilitated each actors' trading of goods of a lower subjective value for a higher. Money overcame problems associated with barter. It enabled selling what we produce to someone who wants what we have but has what we don't want, as he can pay us with the money he makes in his sales to others. Money first came from goods most often bartered: salt, cattle, tobacco, silver, and eventually most universally, gold.

Thus, gold as money, far from being a barbaric relic, allowed us to move closer to the unattainable but ideal world of abundance (physical, spiritual, or esoteric), and toward perfect knowledge. As a facilitator of trade it promoted peaceable relations among disparate peoples. As an economy emerged the array of money prices became customary, a money price array eliminated our need to rediscover a barter price for each transaction. It facilitated the choice of contractual social arrangements to replace hegemonic ones. Savers could count on a modest real appreciation of their accounts.

Money also provided the means for a numeraire. It allowed measurement and accounting of one collection of goods against another. It allowed comparison of incomes etc. It allowed otherwise incommensurable physically diverse goods and services to be reduced to a price in the common medium of exchange.⁵⁶

It comes to no surprise, absent wholesale violence, thievery etc. that these developments would indeed transpire as an econ-

⁵⁶We note that credit is granting of present money in exchange for future money, and that no good case can be made that banks cannot function adequately under the discipline of the market. When market regulation (discipline) is removed, as has progressively been the case, bank performance is subject to increased moral hazard.

For statistical confirmation that confirms the finding that the expansion of credit brought about by the banking system under centralized government auspices has contributed to the boom phase of the business cycle see (Mulligan 2006).

omy progressed from primitive to modern. Exchange, motivated by the desire for each to reduce perceived shortages of goods and services, was seen to be of mutual benefit ex-ante to both buyer and seller in each transaction, even if not always so ex-post.⁵⁷

Under Bretton Woods (1944) central banks were guaranteed dollar-gold convertibility. The dollar was officially tied to gold internationally until policies of debasement (dilution of supply) made this impossible. If one suspects that there was a good reason to finally abandon gold in 1971, it can be found in any monetary economics or financial markets textbook—gold restrained monetary authorities from discretionary policy (i.e. from policies such as inflating the money supply).

Today we use irredeemable money substitutes (certificates) as money. Initially silver and gold certificates were found to be convenient money substitutes in transactions. The fiat U.S. dollar, an uncovered money substitute, remains even today a derivative of specie, living off of the inertia of trust in that customary money. Its market value can be sequentially traced back in time first to silver and gold certificates, which trace to a precious metal itself, transaction for transaction with no break in continuity. The removal of silver and gold backing was accomplished surreptitiously. The current \$20 bill visually replicates a (1928) \$20 gold certificate, but has only legal tender status. People continued to use the changed currency without a hitch. As noted above, new fiat currencies aren't introduced out of thin air without this historical tie to the established array of money bartered prices.

As we have seen, unlike other goods priced marginally by today's supply and demand, the dollar is valued today because it was accepted yesterday, and so on back through time to its mar-

⁵⁷ Property rights well defined are a necessary but not sufficient condition for economic progress. Property rights were well defined under slavery and feudalism. But these rights must be grounded properly according to a system of ethics that respects each person's equal freedom and share of the natural endowment, details of which are outside of the scope of the present discussion. See Rothbard (1972) and Henry George (1949) for a diversity of thought-provoking ideas on this topic.

ginal pricing as a commodity that had only commodity value in a pre-money economy. This is how Ludwig von Mises (1971) explained money as a social rather than a political phenomenon in his **regression theorem of money**.

We recall that money was thus explained by subjective marginal utility theory. Starting in simple direct exchange some commodities were soon valued for other than their commodity value, as they became a medium of barter exchange, of indirect exchange. In the modern economy, **money is the only good that remains entirely in a state of barter**.

We learned from Menger that money's price, its purchasing power, although gradually changing over time, was never established by edict or declaration without an antecedent array of goods prices arrived at by the iterative process of price discovery through money bartering.

There should be no confusing the political act of renaming the monetary unit, with its establishment in the market process. Nor would the introduction of a scrip or fiat money by an authority in a confined market, or in a barter economy, be evidence of a fiat origin of the institution of money in modern economies. As a matter of record, the dollar was defined as a weight of gold in 1900. The British Pound bears the name of commodity money (silver).

Modern fiat money, juridically separated from gold (as gold was demonetized), provided for an ease of production functionally similar to counterfeiting. And as earlier noted, production of both counterfeit money and fiat money unfairly exact losses (in higher prices) from those late in the chain of spending initiated by the new money with reciprocal benefit to the initial spenders. Hayek acknowledged that the gold standard has its faults, but remarked that the reason for its abandonment was not among them.

Neither counterfeiting nor the transformation to fiat money could meet with sustained acceptability in a public commercial venue. The former requires the initiation of fraud and the latter the mandatory imposition and initial enforcement of legal tender laws against the free use of contract agreements as well as the

afore-mentioned abrogation of contractual claims to property (redeemable deposits). The unconscious precepts that build social structures and economies conform to the libertarian strictures of (John Locke's) law of equal freedom among men,⁵⁸ the recognition of which underlies market trust and is essential for the society to function.

Gold is said to be demonetized because it no longer conforms to our economic designation of money as **that medium of exchange or currency in which the array of prices is expressed in a market venue**. Gold however retains properties of money as a store of value based on its future, which may indeed include anticipation of re-monetization. Demonetization of gold never succeeded in preventing its use as a store of value and so never achieved the resource savings that was supposed to make unbacked fiat money superior to gold. Gold continues to be mined and then stashed away from sight, remaining highly demanded even after demonetization.⁵⁹

Can gold be re-established as money on the market? Some writers contend that competition would allow for the adoption of the use of gold. It is seen as superior to fiat dollars as money. It is thought that elimination of capital gains taxes on gold would allow for this (there are good reasons for eliminating capital gains taxes altogether).

But analysis disputes this outcome. Because the array of market prices is not expressed at all in gold ounces or grams, gold can only be practically re-monetized domestically by linking it to the dollar. People would no more relinquish the dollar than would a population voluntarily switch to a new unfamiliar language. Gold would not win out under competition with fiat money but only under conditions of a free market in money, of which fiat money

⁵⁸ Herbert Spencer best stated this:

Every man has freedom to do all that he wills, provided he infringes not the equal freedom of any other man.

⁵⁹ Roger Garrison (1992) makes this point.

cannot, by definition, be any part of. Transition to gold requires a policy initiative.⁶⁰

The regression theorem precludes the likelihood of the market replacing the dollar even under hyperinflation of the dollar. No doubt, under a total collapse of the dollar (and thus the price system and economy), a new field of price arrays in gold could evolve through barter.⁶¹

Contrary to first impressions, neither would an independent gold backed dollar gradually supplant the fiat dollar as a currency. **Gresham's law: "bad money drives out good"** would apply. Because people would prefer the gold backed dollar (and to spend the fiat dollar) it would not circulate so long as fiat dollars were available, otherwise it would exchange at a premium. What is more, fiat dollars, we recall, are not legal tender over time in that inflation premiums are not precluded from interest rate contracts. No one must accept the same number of dollars next year for the same thing this year. A credible note with a stated guarantee of one ounce of gold would be held just as gold coins are today, that they occasionally may be used in a barter transaction is no supplanting of the dollar as currency.

This is not to say that there is any economic justification to restrict the use of gold contracts and the legal use of gold for money (if only to avoid unnecessary systemic risk arising out of our current non-redundant monopoly money regime).

So we distinguish between demand to hold (for future use) and demand to use as a currency for current needs. A competing currency prevails because it retains its status as money while being the most desirable means of payment from one's holdings. When one takes and spends an old tattered dollar bill first, before

⁶⁰ For those countries that drive on the left side of the road switching sides can't be accomplished through simply allowing people to choose which side to drive on and allowing the best solution to win through competition. Even though driving on the right side of the road could be deemed a great improvement it must be done in a coordinated fashion all at once. The switch would not take place just because it was legal.

⁶¹ It is unlikely we could enlist aid from our present digital auctioning websites to re-establish a crude price system before the infrastructure failed.

a crisp new one, Gresham's law is demonstrated. It is easy to confuse the utility of money with the utility of goods, but what distinguishes the two is that money's usefulness is in giving it up for immediate or future exchange, not in its consumption.

The dollar is yet a market institution, in it resides the most powerful cohesive force in the economy. It can be abused, it can be hijacked, but it cannot be abandoned without unacceptable costs to the economy.

A consequence of our fiat money system is that the Federal Reserve and Treasury Financial Complex, has the legal power that no king or despot ever had under the gold standard: It can make more money units without any natural limit.

Recalling points above, usually periods of expansion are not simply credit expansions. A fall in the demand to hold money balances (or in money demand) expands investment into inventory or asset ownership, not only through lending and borrowing. This is from increased trust in the liquidity or safety of these forms of wealth over time.

The greatest virtue of effective limitations on artificial money supply inflation stems from the avoidance of asset bubbles that are encouraged during periods of price inflation when upward price trends seem normal. On this point, the counter argument is that so far as price expectations can be incorporated into decisions so that interest rates contain price premiums and contracts contain cost of living adjustments, no great difficulty arises due to modest price inflation. Rational expectations return us to normal. But such discourses as this usually are heard from academics, or economists for whom consecutive thought is well practiced.⁶²

⁶² Several decades ago (1971) this writer had an extended conversation with Milton Friedman (pre-Nobel Prize in 1976) whereupon I took issue with his maintaining that a modest inflation rate was harmless. But resulting from such a price climate is the underlying accustomization to not stable, but rising prices in most goods markets. And because, as Mises carefully elaborated in 1912, these never occur evenly throughout the economy, certain asset markets are subject to extended price appreciation, appreciation that may even reach the state of being a bubble. The average person makes no sophisticated reservations with respect to the permanence of asset bubbles and of course this is why they are unstable.

To tie this into the problem of hyperinflation, as we have seen money demand can fall as trust in the monetary unit erodes. This process occurs in the extreme, as a panic fall in money demand (money balances are spent as quickly as possible) known as hyperinflation. Historically this has followed prolonged erosion of confidence in a currency. Money supply increases accelerate. Monetary authorities hyper-dilute the value of fiat (unbacked) money after the initial crash in value when governments need to print money for essential purchases. Then, almost any tangible asset is more attractive than either currency, currency denominated deposits, or assets such as bonds or debt claims. During the 2007 Zimbabwe hyperinflation that country's stock market experienced a boom in share prices, as investors fled to whatever assets were available.

QUANTITY THEORY OF MONEY

The usefulness of the quantity theory of money rests in the gross relationships between changes in the money supply and demand versus the general price level. The static equation $MV=PT$ explains final equilibrium states. It expresses price changes as a function of money supply changing or the purported money demand (as the inverse of velocity) changing without attention to the dynamics of the transmission mechanism. In its literal form it is a tautology, V is defined as the ratio of PT over M which is income (or GDP) velocity, and so is not an independent variable. The equation obscures relative price changes in using one average measure for price and so fails to indicate distortions in the shape of capital structures and the structure of production. It likewise obscures changes in the composition of the demand for money.

A further problem with the Quantity Theory stems from the lack of distinction between the demand for money and (the inverse of) velocity. The physical turnover (velocity) of money in transactions need not affect prices. Rather, the subjective demand to hold money as opposed to goods affects prices. Thus

turnover or transactions can increase, for instance, in the stock market, and yet prices of stocks can fall. High trading volume occurs in both up and down markets. Changes in V cannot be simply related inversely to changes in money demand. Velocity, or turnover of deposits often responds to money demand changes, but is in no way mechanically connected or always inversely related. Moreover, as we have seen, money demand for transactions purposes can rise while general demand to hold money falls under hyperinflationary conditions. The demand for acquiring cash or currency increases, while at the same time the desired velocity of turnover, the rate of spending, would increase. The science of economics rests (properly) on subjective behavior, not constants in idealized models.

Note that the simplest use of this equation defines T as only final transactions and thus is deficient as a measure of total transactions. (See the discussion in use of aggregates.) Velocity of money is sometimes equated as the inverse of the demand for money. The use of the term velocity can be misleading.

Discussed above, the need for holding cash balances occurs only in a world of imbalance; idealized models of an economy evenly rotating in balance have eliminated unnecessary costs from holding money balances through clearing systems perfectly matching income flows with spending decisions. Thus money only has meaning as individually demanded by real people in the real imperfect world, there are no scientifically derivable constants for velocity of money in economic models. Again, even further, velocity of money as a concept is flawed. Money is either in one person's money balances or in the next person's, the one who sells something to the first. Its turnover rate may have little to do with its valuation ranking among goods. Hence, official general devaluation of fiat money, instead of enhancing its value, may alert the public to its lack of an anchor and so lead to its further weakening or rejection.

The Quantity theory $MV=PT$ fails to accommodate the tendency for P (prices) to fall as productivity rises. Hence if P falls, $MV=PT$ would imply a change in one or more of the other varia-

bles which need not be the case. This possibility illustrates the importance of knowing if prices are falling because of growth, or because of monetary deflation. If the former, profit rates and economic activity are maintained because more is produced and total revenues need not fall.⁶³

NO SLAVERY TO DEBT

A curious misconception about debt money is heard in some circles of hard money advocates. Since new loans by banks require interest payments be made by the borrower, and money is mostly in the form of checkable deposits, it is thought that the only way to pay the interest to the banks is to get another loan and thus the balance of money owed could never be reduced, and further, that loans can never be paid off with debt money without destroying money in the process of which there never would be enough to clear all debts.

This concern is unwarranted. First, just as interest can be paid in an economy where the money supply is constituted by gold coins fixed in supply, the payment simply being re-spent by the recipient, with credit money the same money used by borrowers can be used to pay for labor or services. If there were a dearth of funds available for any purpose, interest rates would be forced higher each period. But this is not observed.

Second, there can be a pay down of debt, even if it means the money supply shrinks. Since a smaller money supply simply results in higher purchasing power for each unit (prices fall) there is no ultimate loss of the function of money in paying down debt.

Another misconception is that the national debt (an unfortunate and inaccurate term for government debt not the aggregate debt of the people) if paid off somehow must destroy the money supply. If one considers that most of the government debt is in the form of treasury bonds, paying off these would do no such

⁶³ See George Reisman. Daily Post: *The Anatomy of Deflation*, Mises.org, 8/26/2003.

thing, it would be paid off with money that would then go to the owners of the bonds.

Of course if the fiat money, Federal Reserve credit etc. were “paid off” by the government, it would have to be paid off with something. For now that would simply be other Federal Reserve obligations. Should it be paid off with gold then we would simply be seeing the return to a convertible currency, far from being the destruction of money as then we would be back to a form of gold convertibility.

It is true that under a deflationary environment government debt might never be paid off. In effect that would be a de facto default by the government, which would foreclose on its ability to borrow, forcing it to finance expenditures with taxation. That would force fiscal discipline not present under inflationary environments.

CRITICAL STATE AND HYPERINFLATION

We will discuss the problem of definition with respect to the word inflation—that the more appropriate usage is of expansion of something, namely the money stock, rather than the rise in something, namely general prices. Yet we acknowledge that the conventional use of the term refers to the latter.

Under hyperinflation markets are mostly or entirely disrupted by both a high rate of price inflation, as well as credit contraction.

Gresham’s law prevents an ordered market based replacement of the dollar; the dollar remains dominant over ‘competing currencies’, but seen as radically removed from its proper institutional setting.

No economic advantage is attributed to money expansion in that, unlike other goods, increasing the supply of money conveys no increase to its social utility.

When we speak of the money supply we mean the money stock.

Money demand varies over the cycle. Physical definitions of money need not be static. Credit deflation and hyperinflation are

not seen as counterpoised. Collapse of credit is part and parcel of hyperinflation.

Since all goods including money rest on subjective valuations, the 1934 removal of convertibility of money by decree unnecessarily cast the dollar, perhaps irreversibly, into an unstable state—initiating a progressive state of criticality, similar to the state that we recognize as a bubble.

We make note that in 2008 preventative measures to avoid a collapse of the monetary system was the inevitable policy response.

An increasing number of observers see a long run problem of money inflation leading to unsustainable price inflation (becoming hyperinflation when above 50% per month).⁶⁴ As will be seen the popular quantity theory conception of money is too simplified to evaluate such rates of economic change. Under circumstances of high rates of price change, the desire to hold money as wealth diminishes because of money's falling expected future value. Yet concurrently the need for holding money for immediate transactions increases, as more money units are needed to meet the same real value of transactions. The former effect (the diminishing desire to hold wealth) dominates the latter (the need for more transaction units) forcing prices up, overall desire to hold money balances falling. This is why the rate of money supply expansion can be so easily overtaken by the rate of price increases. As prices rise, and the real (deflated) stock of money proves inadequate to provide for needed transactions, the tendency is to employ barter, while with sources of funds diminishing in real terms, businesses as well as governments whose revenue streams are pre-arranged find they are unable to meet payrolls for essential services.

As this lack of money comes to dominate center stage government policy will turn to further accelerated money expansion.

⁶⁴ At that rate in 12 months prices have risen 129.7 times (which can be carried out as an exercise by multiplying 1.5 X the starting amount X 1.5 for each month producing a series for each \$1 starting with \$1.5 after the first month, then \$2.25, \$3.375, \$5.065, and so on to \$129.7 at the end of 12 months.) What costs \$1 on day one costs \$129.7 a year later.

For example, in the 1923 German hyperinflation, Weimer Republic printing presses inflated simply to provide money to pay salaries and expenses. Misunderstood then, as well as in other similar hyperinflations, was that the demand to hold money balances (as wealth) falls more than the increased need to hold money for ongoing transactions. Meeting transactions needs by further increasing the number of units of the money stock is self-defeating because it sends signals that portend price inflation. There is no way to avoid further price increases by attempting further money inflation. The attendant outcome of prices increasing is the uncontrollable fall in overall money demand or desire to hold money balances.

Austrian economics is better equipped to analyze this phenomenon because, unlike mainstream neoclassical economics, its macro-analysis never became detached from its microeconomic roots. Thus the disaggregation of money demand described in most texts reveals a dual but conflicting motive for holding money.

Again, since no money exists outside of that which is held in money balances and thereby is subject to depreciation under price inflation, the term velocity of money in the quantity theory equation ($MV=PT$) is inappropriate. Velocity best refers to the rate of turnover of money holdings, not necessarily to the inverse of the desire to hold money. In fact velocity (turnover) can increase as goods prices move down or as the demand for money increases. What matters is the desire to hold money versus the desire for goods.

Prolonged boom economies experience money and or credit expansion accompanied by reduced need to hold money (i.e. a reduced demand for money) and so both processes contribute to gradual price inflation.

It is not only the expectation of the policy of accelerated increase in money supply (stock) that contributes to hyperinflation. It can be accelerated if another currency is available. However, without a parallel currency to fall back on, people will tenaciously hold onto the use of the existing money regime and its market

price arrays (originally established through barter). Trading with a medium of exchange—even with an inflating price structure—remains far preferable to barter. Barter would require a price structure of newly and painstakingly discovered ratios between each good with respect to every other good.

Thus abandonment of even a hyper-depreciating fiat money is resisted absent another money or currency in place as an alternative.

But also, until asset values have been obliterated, trust in management of a hyper inflating currency is difficult to restore.

So not only do we hang on to the only money system we have as it brings down the economy, only after asset values have been destroyed do we have a better chance that confidence will return in what is left of the economy.

The step from a commodity to a fiat money system is qualitative. As we will see, the significant feature of fiat money results from the destruction by decree of the contractual nature underlying entitlement to money. Under fiat money, once expectations of quantitative easing and of price inflation are underway the monetary system recognizably degrades toward a critical state.

An important and overlooked lesson from the German experience reveals that in the years just preceding hyperinflation prices were relatively stable, but confidence had deteriorated in the monetary regime. A state of criticality slowly congealed, unperceived below the surface, an avalanche poised to happen.

A crash is characterized by a scramble into liquid funds out of other assets—the increase in the demand for money is more abrupt than reduced demand for money in the boom. In contrast, a hyperinflation occurs often as a panic rush into assets of a specific nature not simply a flight out of money balances, not simply a fall in the demand for money, with attendant political reactions.⁶⁵

⁶⁵ Just as a business cycle downturn engenders often poor economic policies such as tax increases and trade restrictions, the political risk to the economy during initial stages of hyperinflation stems from the likelihood of wage and price controls and their destructive effects on the workings of the price system's ability to coordinate production, by making it illegal to conduct business.

SCALE INVARIANCE

Intriguing research finds statistical similarities between natural events such as earthquakes and market corrections. The science of complexity has revealed regularities denoted power laws. A compelling case is made that once a boom has progressed to the point beyond sustainable credit growth an economy enters a critical state. Self-organizing criticality arises when one thing or agent has a certain influence over another, but depends very little on the precise nature of things involved, buyers and sellers reduced to only price responsiveness for instance. At such a point the magnitude of a correction is essentially unpredictable. But yet, smaller events are similarly and proportionately more numerous than larger regardless of the time period sampled (scale invariance). Thus the Gutentag-Richter law finds that a doubling of intensity or size for earthquakes, cities, income, war casualties, fires etc. occurs with one-quarter frequency, regardless of scale. Mandelbrot measured the S&P 500 to follow the rule that a scale invariance doubling in size of a move occurs one sixteenth as often.⁶⁶

UPGRADING OUR MONEY

Unfortunately, the necessary path to upgrading our money (the fiat dollar) comes with a cost. Pegging the dollar by revaluing gold may be possible, but politically difficult. Allowing a more gradual market transition by privatization may be more politically palatable, but as we will see can be financially disruptive.

Let's begin by recognizing that issuing fiat money is generically similar in economic effect to counterfeiting, the difference being

⁶⁶ (Mark Buchanan, (2001) *Ubiquity*, New York: Crown Publishers.) Such conjecture is beyond our present scope, other than to note that policy interdiction of market corrections, as we will see, may produce unpredictable unintended consequences similar to policies of forest fire suppression. Could such ad hoc hypotheses imply that the longer a fiat money regime is sustained the harder will be the fall?

who gets to issue it and reap the economic gain known as seigniorage.

In the U.S. the dollar is protected from competing currencies due to the principle of Gresham's law, where legal fiat (bad) money drives out good. Any attempt to introduce a differently named competing currency, redeemable for instance in gold, would fail (i.e. not circulate) because these bills would be held onto rather than be spent to the extent fiat dollars remained spendable legal tender.

As the basement counterfeiter knows our government adamantly exercises its sovereign power to legally shelter its domestic monopoly hold on the dollar imprimatur. Internationally, the U.S. has sought dollar hegemony through diplomacy, such as establishing the Petro-dollar and other bilateral agreements, to avoid reserve currency competition. Failing that, U.S. foreign intervention imparts the convenient side-effect of removing possible currency challenges by other sovereign countries. Such ongoing peril to the dollar adds weight to the argument for return to a commodity dollar.

But such restoration has costs. Suppose a financial participant, under license, offered bills designated as dollars that were privately redeemable for 1/10th their dollar face-value, in for instance gold, initially at the current price of gold. The incentive would be to spend our paper (Federal Reserve Note) dollars first. Being less valued they would circulate (Gresham's law), note that these new licensed dollars would also be spent by licensees into the economy because they would represent a 9/10ths windfall. Keeping in mind for Gresham's law to operate requires legal exclusion of unofficial replication of what has been customary money. In our example the result would be reduced demand for the fiat dollar ultimately leading to its loss in value and eventual hyper-inflated prices in fiat dollars, while these new dollar issuers would gain a seigniorage of 90%. The transition would be complete once the privilege of issuing gold backed dollars was incrementally expanded with competition producing higher and higher backing of notes by issuers rushing in until the market cleared. To

this end, candidates for use in money convertibility, such as gold, silver, crypto currencies, even labor hours promised, would need to be released from capital gains taxes. Such taxes on assets when valued in depreciating fiat dollars would eventually constitute a total confiscatory barrier to this process.

If use of the customary dollar name were made legal forthwith, with an end to capital gains taxes on monetary assets, then the process would, if not limited to just small bills, cause hyper-depreciation of fiat paper dollars in short order. The market would devalue fiat-dollar denominated assets and dollar dependent contracts, including loans, bonds etc. Such credit would collapse, and commerce would potentially seize up.

Paradoxically, the legalized good money could now drive out bad and replacement of fiat dollars could be accomplished. Pushed to a conclusion, the result of accelerated (bad) money circulation would become fatally inflationary; holding (good) money as a store of value would prevent its depreciation. Restating the law: bad money turnover velocity accelerates as good money turnover velocity stabilizes.

Seigniorage explains why certificates, title and disposition of customary money such as gold, normally dispersed among the public, were appropriated from the people, and then from the banks through the Gold Reserve Act of 1934. With money nationalized, with a centralized bank/government partnership, market checks and balances were removed, and furthering the insult to the public, underwriting of imprudent financial practices were transferred to the taxpayer.

This arrangement has now undermined confidence in the stock market, real estate, and the integrity of ballooning private and public debt. The moral hazards created by TARP and QE, and FDIC extensions, have only acted to ossify distended credit imbalances in financial markets. The framers of the Constitution knew that money is too important to be turned over to those in high office and boardrooms. They may have been remiss in some of their resolves, but declining to sanction fiat money was not one of them.

Those championing regulation (by government edict) often unrealistically (1) attribute unwarranted prescience on the part of the regulator and (2) envision that the power given the regulator will be employed in some definite beneficial way.

Unlike bureaucracies and politicians, markets have their own regulators. These are actual market participants who either perform successfully or drop out. This kind of regulator, with his/her own money at stake performs differently from a manager detached from the consequences of his/her decisions.

Swings in confidence occur even in free markets, but free markets have consistently outperformed the most statist of government-managed economies. Few disagree that much of what goes on in the hype and frenzy to make money in an economic boom deserves opprobrium, and is why bailouts of any kind meet with resistance in public opinion.

Any credible disengagement from institutionalized impairments comprising the Washington swamp, or unmasking of power hubs necessitates a fresh and open discourse on the premise behind the Federal Reserve System erected by the Federal Reserve Act of 1913.

Let's examine why more than holding the Fed only to the standard of transparency already met by other agencies (through audit) is called for.

What cannot be denied is the inordinate latitude of operations garnered under acquiescence of Congress; it can funnel trillions of dollars to financial sectors or favorite targets; it has now over a trillion dollars in toxic assets purchased with but a click of a button, a function tantamount to legalized counterfeiting; it commands powers in excess of any other one agency in terms of its independence of decision making and impact on the financial affairs of the national and global communities.

Now is the time for honest acknowledgement of the long ignored due process need for constitutional authorization of such a collusive consortium of private banks and public officialdom.

The Fed perpetuates an atmosphere of moral hazard as the instrument providing liquidity when overly reckless, overly lever-

aged banking and investment houses come under crises. It is the quintessentially proficient tool of the financial-banking complex wedded to the deep state.

The risk follows from such an entity as floods follow from storms. Here history records the danger—the destructive policy of accommodation that leads to hyperinflation.

All of this underscores the necessity to assure at its inception that the system not include a mechanism to inflate. Hence the lack of a central bank under the Constitution. Neither monetary expansion governed by monetary rules, nor latitude to backstop bank credit creation and moral hazard behavior were delegated.

We see what happened when Congress allowed the erosion of its authority to declare war through acquiescence to executive branch machinations.

Power never granted by constitutional amendment in the monetary sphere has no lawful standing. It means no government role in money other than as specified in Article I, to the defining what the money unit is composed of.

It is but a long delayed fuse, already lit when more than this is allowed. And this constitutes the primary reason for ending the Fed as soon as practicable by Congressional Act or executive order. And this reason is of more importance than its inability to stabilize the economy through monetary policy, or even its now egregious expanded capacity to favor select public and private financial institutions.

A critique of the Federal Reserve System involves several concerns: 1) The lack of ability to gauge the economy given limitations of reliable data; 2) the lack of understanding of proper theory among policy makers, such as how some data series such as price level changes cannot be used as indicators of too much or too little credit expansion; and 3) the perilous and undesirable effects of granting power over monetary affairs to the government or its agency. We'll focus here on the first and second of these concerns.

It takes no statistician to recognize the Fed's lack of an ability to foresee pro-cyclical, negative cumulative outcomes from its

discretionary policies over the last three decades. Yet since the 1990's we've had below the radar Fed credit accommodation, ostensibly guided by precise interest rate targeting.

However, we know that monetary expansion at first lowers loan market rates, but historically, as cost expenditures precede sales revenue, price-inflation acts to raise profits, increasing the rate of return, moving rates up.

But then, when policy created funds bypass more productive market determined allocations, competitive overpricing of inputs in general hurts viable enterprises. This deteriorates rates of return which then operates to lower rates.

And then there are risk and price expectations premiums on the one hand, countered by anticipated prices (rational expectations) on the other.

If anything, attempting to gauge the economy with surmised real interest rates, only roughly calculable after the fact, makes as much sense as reading tea leaves.

GDP (final spending) is directly tied to the money stock, which is controlled and manipulated, and inversely tied to money demand, which is dependent on notional proclivities of business and the public. Growth in a vibrant economy escapes measurability when the money stock is constant. When GDP grows, it may be as a result of defense or other non-productive output increasing (such as during WWII), or it may be raised by spending from new money or out of money holdings; none of these amounting to real economic growth.

Similarly unhelpful is the rate of unemployment misused as an indicator, not only because the type of employment has deteriorated along with lower labor participation rates, but because after any shock, markets tend toward a match of supply and demand, independent of whether the economy has improved overall. In the most primitive society there can be "full" employment—it can be a necessary, but not sufficient condition of economic health.

Additionally, in an environment of monetary intervention, growth in some sectors would not rule out de-levering in others.

Likewise indices of credit driven investment, or capacity utilization may be low due to miscalculated investments that need to be liquidated.

In the decades before 2008 crash, suboptimal performance was met with monetary stimulus. The supposition is that the economy either overheats or slows, and complex formulas using various indicators defined the policy stance.

But unnoticed, and what Mises had emphasized, were that imbalances caused by policies usually would affect sectors disproportionately; credit injections and distorted interest rates only resulted in a compounding of errors.

Moreover, the over-simplified view that the economy responds uniformly to total spending leads to lack of recognition of bubble creation, and in the aftermath leads to attributing asset bubbles to irrational speculation. For instance, are recent low interest rates a sign of a bond market bubble?

Again, lack of money growth may constrain measured GDP which is then no reliable indicator of performance. Neither is there a good measure of subjective preferences and expectations, or whether they were misdirected by policy easing.

Some goods are provided by the state, most are provided privately. Crops, for instance, have been produced by state collective farms, but most by private farms. Money, can also be under state-governance, or under private-governance. A currency can be separated from its juridical tie to government; its issue and handling can be decentralized, it can be privatized.

When gold was demonetized officially in 1971 some thought that the loss of its use for reserves would lower its price below the then \$42/oz. However, because confidence in currencies fell, gold prices rose, proving its store-of-value monetary attribute. This raises the prospect that re-linking the dollar to gold would not require undue appreciation of gold.

The change would be most easily implemented by legalizing the use of the dollar trademark, but accompanied with fractional convertibility to gold. Issuers would compete by offering their dollar demarcated currency with increased fractional backing.

Over time there would be diminishing profit or seigniorage (the difference between the value of money and the cost to produce it) until private 'dollars' reached 100% convertibility. This adjustment would see a convergence of prices as the market dollar price of specie adjusted to its new role while the dollar depreciated due to its increased supply. The limitation on issuance would then be governed by the amount of monetary metal demanded for this purpose, not by the monetary authority. Money is too important to turn over to those in high office and boardrooms.

Gresham's law (good money drives out bad) is always at work if money is legally imposed.⁶⁷

Why is this reform necessary? The control of money, the medium of exchange, essential to all economies, commands vast potential for wealth. That explains 19th Century legal constructs to protect banks allowing suspension of specie payments, and why independent banks were conjoined with a monetary authority. It explains 20th Century central-bank lending of last resort; it explains government guarantees for bank deposits, and now, escalating bailouts that ensued after the 1913 Federal Reserve Act, an act that granted unearned ongoing windfalls for the banking industry from new Fed created deposits that banks lend for interest.

Globally, money is monopolized, controlled by similar legally concocted artifices, determined apart from the market, its management determined by government fiat. The designation of what is counterfeit, and what is fraudulent, is all that is needed by governments to wrest from, and maintain control of seigniorage out of the hands of the public, and to grant themselves the exclusive privilege to replicate more money units. So with U.S. dollars.

⁶⁷ If I have an old torn dollar, I prefer to spend it (use it for my money) which I can because it is legal tender, while withholding fresh dollar bills in the back of my wallet (i.e. out of use). Of course, banks trade the worn bills in to the government for new ones, otherwise we would see dollars circulating in worsening condition over time.

Hence, the need for genuine control of the quantity of our money units. Some argue that Fiat money could in theory be limited by rules and provided more efficiently as currency. Yet by analogy, windows would be cheaper without screens, but hoping there are no insects is not enough. Government restraint, as well as central planning of money, has been tried and failed; it too is not enough.

Privatization has been given a bad press. Money privatization enhances individual sovereignty. It is distinct from the privatized (monopoly) capture of public land or resources such as railroad land grants to the select. By contrast, use of a specie based privatized money decentralizes and disperses control.

And it returns to the people what was once theirs. It returns discipline to financial markets reversing improprieties gained through partnership with the government.

It allows a fair interest rate, a fair return on savings, annuities, and fixed income sources. It allows benefits from price reductions as productivity increases; it relieves us of boom/bust cycles and dollar depreciation that averages 95% or more per century with no end in sight. And it renders supererogatory further geopolitical defense of dollar hegemony.

In the case of the U.S. dollar, there are further global negative consequences of our fiat money system. Production of fiat money, like with counterfeiting, produces a benefit known as seigniorage.⁶⁸

When a government prints and spend fiat money in a larger venue it then gains more seigniorage. Moreover, if the dollar is held in greater volume globally, this extra demand for money counteracts the inflationary effects of an increased supply. Nobel International Economist Robert Mundell was said to have remarked that the major force in global politics derived from seigniorage.

⁶⁸ "Seigniorage is the difference between the value of money and the cost to produce it."—Investopedia

Naturally, governments (and their central banks) want to require acceptance of their costless fiat money without competition. Domestically, the U.S. can enforce its monopoly hold on money because it has sovereignty, it has the currency statutes that protect its money from competition. In addition, the domestic market is subject to conditions created by lack of parallel currencies. Elsewhere the U.S. dollar lacks sovereignty and so attempts have been made to extend its control sometimes with military intervention.

To this end, candidates for use in money convertibility, such as gold, silver, crypto currencies, even labor hours promised, should be released from capital gains taxes. Such tax on assets priced in existing dollar currency impedes the store of value monetary role.

If this were permitted, i.e. if all laws making such practice illegal were repealed, including capital gains taxes on monetary assets, then the process would, if not limited to just small bills, easily cause hyper-depreciation of Federal Reserve money, and in so doing destroy such dollar denominated assets and dollar dependent contracts, including loans, bonds etc. The credit markets would be ruined, and commerce would seize up.

Internationally, the U.S. government has no legal advantage, and is unprotected by Gresham's law. Hence, the incentive exists to establish hegemonic control to prevent competition from any consortium of sovereign countries. Privatizing money will legalize orderly deployment of the dollar trademark competitively, and initiate specie-linked replication of dollars in place of empty-promise fiat dollars. It will expose the counterfeit attribute of government produced dollars. It will provide the mechanism to overcome Gresham's law that states: bad money drives out good. It will do this by removing the conditions for Gresham's law—the government regime of control.

The transition will be a time when seigniorage, the difference between the cost of production and the value of money, (the profit from the privilege of its printing, for instance) is privatized.

Paradoxically, it will be through the operation of Gresham's law—bad money drives out good—where less preferred fiat units

of a currency circulate, and the more desired partially convertible units are hoarded, that this will be accomplished. It only needs to be seen that, pushed to a conclusion, the result of accelerated (bad) money circulation is inflationary, and that holding (good) money as a store of value is no cause of its depreciation. Restating the law: bad money turnover velocity accelerates as good money velocity stabilizes.

It explains why title and disposition of money, normally dispersed amongst the public, was appropriated. With money nationalized, with a centralized bank/government partnership, market checks and balances were removed, and cost of underwriting of imprudent financial practices were transferred to the taxpayer.

But money is too important to turn over to those in high office and boardrooms. They have now undermined confidence in the stock market, real estate, and the integrity of ballooning private and public debt. The moral hazards created by TARP and QE, and FDIC extensions, have only acted to ossify distended credit imbalances in financial markets, preventing them from functioning. Governments now have a tiger by the tail, afraid to let go, to let the market do its work because the collapse of false wealth and leveraged finance would be of apocalyptic proportions.

The Fed, operating under the facade of stabilization, is responsible for recurrent crises, another case of the failings of central planning. Fed operations have undermined the interest rate's role in signaling investment to the most productive projects.

With fiat money expansion, the new funds benefit most those first in the chain of spending before prices adjust. The losers (after prices are affected) are all the others. For the public it is a negative sum game, as it has been well demonstrated that increasing the supply of money provides no overall increase in utility.

On the other hand, whether bureaucrats, appointed officials, or congressmen and senators handle monetary affairs, they are not as responsible as those with a direct personal stake in the losses.

Prospects

As a science, economics has no laboratory to accelerate discovery and understanding. History by itself only refutes applicability of propositions, it is unable to prove or disprove. But the fact of definite self-evident initial truths surrounding human purposive action allows for careful stepwise deductive elaborations through thought experiments. These lead the reasoning mind inescapably to insights unobtainable by any other process and often to discoveries otherwise counter-intuitive. Unfortunately, sometimes events overtake societies that fail to employ these tools to head-off consequences of concerted efforts by statutory governing authority.

Looking ahead: To the extent the current unprecedented deficit spending is seen by the global dollar economy as reckless, loss of confidence needed to support the also profligate money supply expansion could contribute to the dollar's ultimate rejection. When we take into account the dollar's status as an internationally demanded store of value, and a reserve currency for central banks worldwide, we see a source of vulnerability. Following our economic stricture that money be **that medium of exchange or currency in which the array of prices is expressed in a market venue**, the demand for dollars as money, considered internationally, loses some of its underpinning. Foreign holders of dollars have their own currencies. Therefore, the overhang of dollars abroad, along with dollar denominated Treasury debt is subject to panic abandonment more so than if dollars were the only currency worldwide.

In our world of uncertainty, an uncontrollable downward trend of money demand lurks in the future. Fiat dollars have only notional value, no floor of commodity value. To risk undue repetition, all of this merely validates the truth that the dollar is of value today only because of its historic connection to specie in the past, it being utterly infeasible to introduce a new money into an

economy by law (renaming an established money is always possible, but is not a new money). It takes a long process of discovery by barter to establish systems of prices. The price array we have today came out of past price arrays. Such necessary economic order extends back in time to when barter was commodity for commodity, one commodity ending up as money.⁶⁹

We ignore the Mises regression theorem of money at our peril. Paul Samuelson's textbook dictum: "Money is accepted because it is accepted." won't do. We may have forgotten that our money was originally not fiat but commodity money, yet the market prevents us from relinquishing the dollar. Removing the legal tender status or the government imprimatur imperils an essential cornerstone of the economy. This follows from the lack of any mechanism to simply install another money, even one with backing, without tying it to the dollar (i.e. renaming the dollar).

Commonly the literature links hyperinflation with actions by the monetary authority to inflate the money supply. Costantino Bresciani Turrone (1968) found that as soon as the German authorities undertook to control the money supply in 1923, hyperinflation of prices was brought under control. And that even with a fiat money system. The important take away is that the new policy of stabilizing the currency be genuine and believed.

What may not be so obvious is that such stability appears to be only possible after credit and savings in financial accounts are destroyed first by the hyperinflation of prices. When only circulating physical paper money is left, then it appears that control can be returned after the renaming of the unit of account, using the domestic currency regime as touched on above. The reason for this appears to be that hyperinflation is first and foremost a collapse in confidence for financial assets. It is a credit collapse as well as a collapse in trust in money; but trust is resumed only after debts and promises to pay no longer matter as they have

⁶⁹ As earlier noted, the pricing of fiat money day to day (its purchasing power) is not notionally retrospective to its commodity past but is to its recent past. It is not simply priced by its acceptance day-to-day and subject to supply and demand as implied by the quantity theory.

largely been casualty to defaults and or eliminated by depreciation.

Once price inflation has drastically devalued money denominated credit assets then flight from those assets into tangible goods comes to an end. Then only standard money, even if fiat, still matters, because money will always be in demand for the essential basic needs of survival obtained through exchange. Attendant bankruptcy of financial institutions may even affect assets such as stock shares or commodity exchange accounts. Bank share prices, investment bank instruments and other financial intermediary assets could collapse in real terms.

Wiping out everyone's dollar denominated savings or wealth first hardly affords consolation for those affected. Confidence in renewed business undertakings would evaporate. Some sort of economy would survive but it might resemble a third world economy where ownership protections are chronically unreliable.

One might be surprised to know that the panic flight from money that characterized hyperinflations typically occurred not after but prior to the worst hyper-reproduction of the currency. What is more, the years just preceding typical hyperinflations were not always price inflationary. Deterioration of confidence in credit is deflationary. The requisite loss of confidence in the currency came first, but that only resulted from loss of legal right of redemption, a condition already met by all fiat monies today. In other words, if a sufficient (but not necessarily large) financial shock to the economy were to occur, panic flight out of financial assets could initiate what we know as hyperinflation.

In September 2008 officials moved to avoid what was claimed could result in a credit collapse that was underway. Without the immediate expansion of FDIC coverage to bank accounts between \$100,000 and \$250,000 along with extension of coverage to money market accounts, and with Treasury backing, a panic run out of these accounts that was only hours old would arguably have had the effect of first a contraction in the overall money supply, and more importantly could have triggered the collapse of

the credit system. Then, consumer prices may have exploded. That could well have been the next event, at least for staples.

Should one adopt the definition of inflation attributed to some in the Austrian school, i.e. that of expansion of the money supply rather than of prices, then we could agree that the requisite damage has already been done, that no recourse to managing the CPI would do to prevent the possibility (as opposed to the certainty) of a collapse of the value of the dollar (which would also constitute a collapse in credit), because once inflation of the money had occurred to the extent we have already seen then the economy would be in a critical state, under threat, waiting for the catalyst. We can say this and also point out that Austrian money theory neither implies nor predicts an inevitable demise of the dollar.

In the current climate of financial uncertainty and bank insolvency, there is little doubt as to at least one reason monetary authorities added another \$1 trillion to bank reserves mostly in 2008. By simply holding on to those reserves, the banks reduce their loan leverage, there being no danger for the immediate future of the reserves producing credit inflation, since they only serve to fill the gaping hole left from the system of fractional reserves.

To make this crystal clear, let's look at Professor Rothbard's definition of inflation: The increase of the supply of money over the monetary base (Rothbard mentions specie rather than monetary base—(1962 p. 942 (131))).

Here is the clincher: In what sense are IOU promises from the Fed a “base” of anything much less money? Is “monetary base” a proper economic designation? Is it even lawful under the Constitution? ⁷⁰

⁷⁰ We know that money, an emergent order institution of the people who designated it through honest exchanges to be a commodity of real value. It never could have emerged first as a digital or paper promise, especially not a promise from some congressionally empowered entity composed of a balanced mixture of bankers and bureaucrats and politicians called the Fed. Fiat money thus owes its entire existence to commodity money, and this fact speaks to the realization that even in its derivative form it continues to be

Once we ascertain that the gold specie monetary base was withdrawn—that after 1933, or at most after 1971, it was no longer there, then our definition of inflation becomes the increase of the ratio of the money supply (\$10 Trillion) over the base which had been reduced to nothing. We must then conclude that a hyperinflation of money, but not of prices, has from this technical perspective already occurred! No new policy of fiat money stabilization is capable of eliminating this first level of criticality.

To make matters worse, current fiscal obligations of the U.S. government alone, including unfunded liabilities may now exceed \$100 Trillion. Even the average voter is losing confidence that it will ever be honored. And the obvious conclusion, not hard to figure out, is that inflation of prices will be the preferred method of default, indeed, the only politically possible means available. The rescue of the credit collapse has been by substitution of Treasury debt. Needed credit deleveraging has been arrested, but only for the present. The economy's way of correcting artificial credit bubbles is crises. Recent events have raised the level of awareness among astute observers. The risk of the ultimate failure of the government backstop is real.

Murray Rothbard (1963 pp.21-25) took the position that rescuing the economy from a credit collapse would only return us to the pre-boom level of money and credit; for Rothbard the advantage of not rescuing the economy and allowing such a collapse would be to expose the banking system as a source of excessive credit inflation.

Such a position may have had merit in 1963. The 2007-8 rescue, however may have prevented the kind of credit collapse that would be unrecoverable in an age of dependency on credit availability for fuel, credit cards used by trucking companies, ATMs, domestic and global commerce, and non-cash transactions for

society's money, it remains a most valuable and essential economic institution, not because it has been compromised by being nationalized but in spite of it.

food purchases. One could imagine the breakdown of law and order in 72 hours as people helped themselves to the grocery shelves followed by mobs moving out from urban centers.

The impending money supply contraction after decades of increased bank leverage over reserves was different in nature from the great contraction of the 1930's. Clearly in this narrow context some believed the authorities acted appropriately by raising FDIC coverage from \$100,000 to \$250,000 and giving Treasury backing to the FDIC.

But this did result in converting private credit demand accounts of the banking system to *de facto* government credit, an enormous and deplorable windfall for a system bankrupt in its very essence. The rescue endorsed all of the credit inflation that has reduced the value of the dollar more than 95% since the last contraction during the Great Depression.

In the future, should a move occur out of financial assets, it may be the reverse of a flight to the dollar; it would not be back into those assets that produced recent losses, but rather into those that are titled, and to commodities and real goods.

Fiat money is inferior to commodity money simply because of the ease to which a government can inflate its supply. What is obvious, but needs to be said, is that the second important reason not to remove convertibility from a currency is to preserve a floor of value under which it will not fall when put under insurmountable speculative pressure on the downside. In this respect fiat currencies by their nature persist in a state of criticality.

If we see that the Federal Reserve System, a central bank, is globally not the only bank, but just as existed in the days of competing banknotes in the U.S. in the Nineteenth Century one of a number of national banks with their own issue of banknotes, then it should be evident that the same fate that befell banks guilty of over-issue of their own banknotes, could befall the Fed, and the U.S. Treasury. For just as a bank run could not be prevented then when confidence was lost in such a bank, even if it ceased inflating its issue of notes and credit, the adoption of a monetary rule, or even some statutory control of the rate of increase of the

money supply, would have no effect on the total rejection of the notes already extant.

Once past a threshold, the fact that the officials in charge of policy know better, have the best intentions, matters not under the political clamor for relief. Rare is a force as strong as that driven by the fear of collapse of the government itself when the real income of employees and bureaucrats, military included, falls below functionality. And this will happen simply from the collapse of the real money supply that occurs during accelerating inflation. It happened with the Continental under the provisional revolutionary government; it happened under the Confederacy. When the desire to hold money balances (money demand) falls during the flight to goods, insurmountable pressure for more liquidity arises from the loss of adequate funds (in real terms) to carry on operations in business and government. Unlike the demand for money to hold which evaporates, the demand for more income to meet transactions accelerates. No agency, no government, nor any authority can hold back the tide of public and private forces at this point. Then it becomes irrelevant whether the Fed or the Treasury controls credit. It becomes irrelevant whether there were rules, discretion or other strictures, or even an organ of money creation at all. One will be created if need be. It is beyond any hope at this point. A shutdown of markets and commerce follows either due to price controls or hyperinflation. And for the former, the more efficient the information gathering capacity of the government, the more effective the enforcement, and the more disastrous the outcome. For the latter, massive influxes of money must follow at least until financial dollar-denominated assets no longer have value and there can be a sense that the monetary unit will be better than financial alternatives, usually accompanied by a restructuring of the monetary regime so that holding money balances again becomes viable.

Moreover savings/consumption decisions don't just react to rates, they also influence them.

Fiat money then is far more dangerous than seems currently to be understood by economists. It is not simply that it can be

inflated at will, but that it may be rejected regardless of that prospect.

Since we know now how the dollar arrived in its present condition we know of at least one way out, that is to retrace the moves back to supporting the dollar as a world currency, and then re-establishing convertibility.

Technically, reform will be far easier if initiated before prices become unstable and more difficult to contain. Those with the expertise to craft a solution would likely include at least an announced, credible targeting of monetary policy to a commodity price. What confidence exists in the fiat dollar would be jeopardized should inflation and high interest rates develop. Furthermore, quantitative tightening and easing have become ineffectual. In any case it is doubtful that the Fed would signal restraint by pre-emptively raising reserve requirements even if needed to avoid the possibility of the money multiplier kicking in with the huge monetary base. The double dip of 1937 has been widely attributed to just such a tightening measure, and should interest rates begin to rise, political pressure to ease would be insurmountable under a regime of discretionary policy. And as price premiums pushed the nominal rate even higher authorities would be even more inclined to continue easing.

In conclusion, we know the transition to a monetary regime of public trust and proven commercial viability is overdue. Does expecting government to act prior to crises ask too much? Might it turn out as it has in the story of the man who saw no need to repair the leak in his roof in good weather and found it always too difficult to repair in bad? Perhaps. Yet, when the generality of the problem gains more attention innovative solutions could just as well emerge.

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