Utah Legal Tender

Looking Back at Forward Thinking

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The Utah Legal Tender Act
Outline of Further Considerations

I. Overview. Passage of the Utah Legal Tender Act has:
1. Profoundly impacted international monetary reform debate;
2. Positioned Utah to provide unique and needed financial services;
3. Laid the groundwork for a viable complementary monetary system; and
4. Stimulated interest in a return to the traditional U.S. gold and silver standard.

II. Tax Calculations.
1. Federal Law makes no distinction between paper and specie dollars.
2. Citizens can, therefore, transact in specie but pay taxes in paper.
3. To preserve state tax revenues, the legislature can either:
   A. Set its own exchange rate for tax purposes, or
   B. Require tax payments in kind.

III. Tax Payments. A tax collection system which only allows for payments:
1. in non-specie dollars retains the efficiency of current systems; while one
2. in proportion to legal tender(s) used in the underlying transaction eliminates:
   A. the need for Utah to establish and maintain currency exchange rates;
   B. any requirement to move between specie and paper economies;
   C. balance sheet as well as exchange rate risk for the taxpayer;
   D. the necessity of interfacing with other tax authorities;
   E. potential windfall tax savings for the taxpayer; and
   F. possibly catastrophic revenue loss to the state.

IV. Payment Processing. Specie payments could be made to the Tax Commission or its agents:
1. Financial Institutions offering accounts holding specie fully includable in reserves; and
2. 100% reserved, commercially insured, state regulated, commodity repositories.

V. Coin Monetization.
1. Utah has the authority to monetize any class of gold or silver coin.
2. The Constitution arguably prohibits the state itself from minting coin.
3. The state has currently monetized only U.S. issued gold and silver coin.
4. Current state monetized denominations are not well suited for tax payments.
5. The smallest U.S. silver coins are not denominated in fractions of the troy ounce.
6. Addition of useful weight denominations can be accomplished by monetizing:
   A. locally minted coin, creating revenue for commercial and state entities;
   B. foreign coin, already be held by many Utah citizens; or
   C. a combination of both of these.

VI. Gold Clauses. Notwithstanding the constitutional prohibition against impairment of contract:
1. The U.S. government has previously confiscated gold and disallowed gold clauses;
2. Although, federal law does currently allow for gold clauses in private commerce;
3. Utah has the independent constitutional authority to protect such contracts.

VII. Monetary Civil Rights. To protect the monetary civil rights of those doing business in Utah:
1. the private information of any person's legal tender holdings must always be secure;
2. disclosure, search or seizure of legal tender holdings requires due process; and
3. finger printing or other ID must not be required for legal tender exchanges.

Monetary Expert Witnesses

- Thomas Selgas, Esq. serves as the monetary policy expert for the United States Bill of Rights Foundation in Washington, D.C. Over the past decade, Tom has worked closely with Dr. Edwin Vieira, Jr. in updating, revising the republishing Pieces of Eight, The Monetary Powers and Disabilities of the United States Constitution (2002 update release 2010). This work is reputed to be the most comprehensive study in existence of American monetary law and history viewed from a constitutional perspective;
- Bernard Lietaer, author of The Future of Money (translated in 18 languages), is an international expert in the design and implementation of currency systems. He has studied and worked in the field of money for more than 30 years in an unusually broad range of capacities including as a Central Banker, a fund manager, a university professor, and a consultant to governments in numerous countries, multinational corporations, and community organizations. He co-designed and implemented the convergence mechanism to the single European currency system (the Euro) and served as president of the Electronic Payment System at the National Bank of Belgium (the Belgian Central Bank). He co-founded and managed GaiaCorp, a top performing currency fund whose profits funded investments in environmental projects. A former professor of International Finance at the University of Louvain, he has also taught at Sonoma State University and Naropa University. He is currently a Research Fellow at the Center for Sustainable Resources of the University of California at Berkeley. He is also a member of the Club of Rome, a Fellow of the World Academy of Arts and Sciences, the World Business Academy, and the European Academy of Sciences and Arts. Bernard Lietaer has written numerous books and articles about money systems, including Of Human Wealth (forthcoming, 2011), Monnaies Régionales (2008), and The Mystery of Money (2000).
- Lawrence ("Larry") Hilton, Esq. holds both Juris Doctorate and Masters of Business Administration degrees from Brigham Young University. Admitted to both the Utah and California Bar Associations, Larry has practiced in the area of insurance coverage and defense for more than 20 years. Larry's interest in monetary policy extends back well over a decade. In 2009, he began researching the scope and extent of state monetary authority and drafted the legislation which ultimately was passed into law in 2011 as the Utah Legal Tender Act. He continues to work closely with the Act's House Sponsor, Representative Brad Glavez, on legislation to further refine Utah's complementary monetary system. Larry is founder of the non-profit educational entity Citizens for Sound Money which, in collaboration with the Washington DC-based think tank, American Principles Project, put on the first of its kind Monetary Summit in September, 2011. The Utah Monetary Declaration which emerged from the Summit is shaping monetary policy discourse worldwide.

Gold, hard cash: Utah brings back the silver dollar

Guy Adams

Saturday, 28 May 2011

Over dinner Larry Hilton shows off a swanky iPhone app that allows him to buy and sell gold at the click of a button.

Then he talks about the portion of his life savings that he has invested in precious ingots, which are locked away deep inside a bank vault in the City of London.

But when it's time to pay the bill, Hilton, an attorney from a small town just outside Salt Lake City, is forced to settle his debt in the bog-standard way: by either handing over a plastic credit card, or digging into the stack of bank-notes which is shoehorned into his wallet. Not for much longer, though. Because this week, Utah passed a law allowing gold and silver coins to be used as legal tender.

The move makes Utah the first US state to attempt to resurrect a monetary era which ended roughly a century ago. But it may not be the last: similar bills are being considered by lawmakers in Minnesota, Carolina, Idaho and roughly nine other states.

"It's all about creating an option," says Hilton, who helped write the Utah Sound Money Act. "By allowing people to pay with gold and silver, you give them a currency they can fall back on that isn't dollars and cents. They can rely on the fact that, as the old saying goes, their money will always be as good as gold."

No one knows quite how Utah's new system will work in practice. Participation is strictly voluntary, for both consumers and retailers, and Hilton admits there's little chance of seeing customers at McDonald's choosing to cross the cashier's palm with silver when they need to pay for their next Big Mac.

There is, however, talk of creating debit card accounts allowing consumers to store coins in a depository, which are then used as collateral against everyday purchases. If, for example, someone had used such a card to purchase a $100 pair of shoes yesterday (when the silver price was around $38 an ounce) the owner of the depository might remove just under three ounces of silver coins from their supply.

For the time being, the architects of Utah's new law are more concerned with making a political point than with dreary practicality. By turning gold and silver into a rival currency, Mr Hilton says they hope to strong-arm the Federal Reserve into altering US monetary policy.

For years, right-leaning thinkers, led by the libertarian Republican Ron Paul, have held that the current Federal Reserve practice of printing banknotes which are not backed by any form of concrete asset devalues the dollar and could eventually make it worthless.

Pointing to case studies such as modern-day Zimbabwe, and Weimar-era Germany, they say that currencies that are not asset-backed (known as fiat currencies) are vulnerable to inflation, which devalues people's savings. Gold and silver, by contrast, always retain an intrinsic value as a precious metal.

"Ron Paul has an expression for what happens under the current system. He calls it inflation tax," says Mr Hilton. "What he means is that when the federal reserve prints new money to stimulate the economy, that

makes the money which is already out there less valuable. It's basic economics."

He points out that the purchasing power of a dollar has declined dramatically since the First World War, when the US and other developed nations began abandoning gold-backed money (the "gold standard") to help pay for the conflict. The purchasing power of gold, by contrast, has remained fairly stable. During the 1849 gold rush, prospectors who returned from the Sierra Nevada to San Francisco with an ounce of gold in their pocket could expect to afford a newly tailored suit and a good steak dinner. Today, the same amount of gold is worth around $1,500 – enough to do more or less the same thing.

William Still, a filmmaker behind The Money Masters, a documentary critical of modern monetary policy, says that simply giving people the option to use gold and silver may dissuade the Federal Reserve from allowing inflation to happen as a result of efforts to stimulate the economy. "It's going to be very interesting to see how it pans out," he says.

Critics, for their part, have called the move unnecessarily drastic, saying that abandoning dollars and cents in favour of gold and silver is the economic equivalent of shoving a gun under your pillow and filling the larder with tinned food in preparation for the apocalypse.

With gold and silver prices approaching record highs, financial experts add that this may not be the most opportune moment for the public to invest in precious metal.

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May 29, 2011

Utah Law Makes Coins Worth Their Weight in Gold (or Silver)

By WILLIAM YARDLEY

FARR WEST, Utah — Most people who amass the pure gold and silver coins produced by the United States Mint do so for collections or investments, not to buy Slurpees at 7-Eleven.

"You'd be a fool," Tom Jurkowsky, a spokesman for the Mint, said of the Slurpee idea, "but you could do it."

After all, while the one-ounce American Eagle coin produced by the Mint says "One Dollar," it is actually worth more like $38 based on the current price of silver. (An ounce of gold is worth more than $1,500.)

Now, however, Utah has passed a law intended to encourage residents to use gold or silver coins made by the Mint as cash, but with their value based on the weight of the precious metals in them, not the face value — if, that is, they can find a merchant willing to accept the coins on that basis.

The legislation, called the Legal Tender Act of 2011, was inspired in part by Tea Party supporters, some of whom believe that the dollar should be backed by gold or silver and that Obama administration policies could cause a currency collapse. The law is the first of its kind in the United States. Several other states, including Minnesota, Idaho and Georgia, have considered similar laws.

Mr. Jurkowsky said the new law "is of no real consequence," and is purely symbolic, but supporters say it is more than political pocket change. They say that it is just a beginning, that one day soon Utah might mint its own coins, that retailers could have scales for weighing precious metals and that a state defense force could be formed to guard warehouses where the new money would be made and stored.

"This is an incremental step in the right direction," said Lowell Nelson, the interim coordinator for the Campaign for Liberty in Utah, a libertarian group rooted in Ron Paul's presidential campaign. "If the federal government isn't going to do it, then we here in Utah ought to be able to establish a monetary system that would survive a crash if and when that happens."

Utah has a strong conservative streak, but there are other reasons why it was first to pass such a law.

For many of its supporters, the new law represents an extension of the notion of preparedness that is nurtured by Utah's powerful founding institution, the Church of Jesus Christ of Latter-day Saints. Many of the law's supporters believe policies like stimulus spending, the bank bailout and national health care will soon bankrupt the government, sending inflation soaring. Owning gold and silver, they say, will help protect people.

"It's kind of written into our theology that we're supposed to be prepared for any eventuality," said Mr. Nelson, who was involved in early meetings with state lawmakers about the law.

Wayne Scholle, the marketing director for Old Glory Mint, in Spanish Fork, Utah, showed off a commemorative silver coin the company made honoring the new law, one he said he hoped could be a model for a future state-minted coin. The front — or obverse — includes an image representing "the miracle of the gulls," an important story in Mormon folklore in which seagulls are said to have suddenly appeared and eaten insects that were destroying the first crops Mormon settlers raised, a year after arriving in Utah in 1847.

"Their messaging is spot on with this," Mr. Scholle said. "It's preparedness. It's protecting yourself."

Old Glory is not the only company that hopes to benefit. Craig Franco, a coin dealer south of Salt Lake City, said he was finishing an arrangement with a bank to create a depository through which people will be able to spend their gold and silver indirectly, by using a Visa credit card that makes charges against the value of their holdings. Mr. Franco noted that state law, for now, left it to the private sector to figure out how conducting business with gold and silver should work.

"The regulation of the system?" Mr. Franco said. "There is no regulation of the system. We are working out the nuances of it."

Mr. Franco is among several supporters who say the law's most important feature may be that it eliminates state capital gains taxes on the sale of gold and silver, a move he thinks will prompt individuals and large scale investors outside the state to move their gold and silver to Utah. But federal capital gains taxes would still apply.

"I would hope the federal government would simply concede: 'O.K., you're right, it's money, so we can't tax it,' " said Larry Hilton, a lawyer and insurance broker who first took the idea to lawmakers. "But that may not happen."

Article 1, Section 10 of the Constitution says no state shall coin money, though Mr. Hilton and some others argue that a phrase used later, saying no state shall "make anything but gold and silver coin a tender in payment of debts" can be read as a license for Utah's new law and, perhaps, for a state's right to mint its own coins.

A spokesman for the Mormon church would not comment on the Utah law, but said in a statement that the church's teachings related to preparedness were "simply a matter of encouraging people to practice sound principles of provident living and to save for a rainy day."

State Representative Brad Galvez, the freshman Republican who sponsored the bill at the request of party leadership, said he was "not trying to push back against the federal government" but simply to "create an alternative" to the dollar that lawmakers hoped might send a message to Washington about fiscal policy. He noted that the law does not require businesses to accept gold or silver, but only gives them a choice.

Much of the logic of the law is rooted in the belief that the dollar is at risk and that gold and silver, coined around the world for thousands of years, are enduring, stable investments. That, too, is in dispute.

"From an investment standpoint, I've always found that if something is heavily advertised on television, it's not a good thing to do," said Gary P. Brinson, a philanthropist who spent 40 years as an investment strategist. "Right now, it's hard to find anywhere on television where you don't see gold and silver being advertised."

For all the excitement, so far, it is hard to find anyone who is using gold or silver to buy anything. But here in Farr West, about 40 miles north of Salt Lake City, there is at least some precedent for such transactions.

Decades ago, the rambling Smith and Edwards store, a kind of giant 7-Eleven from the Old West that sells everything from survival kits to sporting goods and copies of the Constitution, had a special sale, offering a very favorable rate if people made purchases with "junk silver" dollars and half dollars. In the 1980s, the store sold a man a $1,200 air compressor for a little less than 4 ounces of gold, recalled Bert Smith, one of the owners, who is now 91.

Mr. Smith said that he liked the new law, and that he was ready to accept silver and gold. But he does not expect to see much brought to his registers.

"I don't suppose there's going to be a big run on it," Mr. Smith said, "because people are going to hang on to their gold and silver more than ever."

Bell: Gold Standard Issue Has Potential to Unify

By Jeffrey Bell
Special to Roll Call
Nov. 14, 2011, Midnight

The tales emerging from the Occupy Wall Street movement have a certain quaintness, as a mixture of aging anarchists and baffled Main Streeters offer dazzlingly offbeat solutions to genuine concerns.

Take the OWS protester spotted in downtown Washington, D.C., the other day who refused to answer an interviewer's questions until the reporter plucked a stone from the pouch he was wearing. As the Wall Street Journal's James Taranto describes it, the stone-bearer, a young man named Kyle Szlosek, proceeded to intone, "That stone is the only thing that matters in life." If he could change anything through his protest, he said, it would be to "get rid of money."

Other OWS protesters are more pragmatic or, at least, more formulaic. "One citizen, one dollar, one vote," is their battle cry. This one emanates from the belief that money has corrupted U.S. elections, sabotaging the democratic process and elevating corporate greed at the expense of working Americans. The OWS protesters who raise this slogan are focused on campaign finance reform and the 2010 Citizens United Supreme Court ruling that struck down federal limits on corporate political activity.

As fuzzily focused as these complaints are (the U.S. economic meltdown in late 2008 occurred 18 months before Citizens United and a full year after the first Obama stimulus had funneled hundreds of billions of dollars to favored interests and industries), they are on to something fundamental. Our nation's money can no longer be trusted as a storehouse of value, and big government and big business have derived perverse benefit from their ability to access and manipulate that storehouse.

The good news is that Americans are increasingly recognizing this fact and its significance. And the contenders for the highest office in the land are responding to this recognition. In politics, as in markets, the supply will respond to the demand.

And that demand is rising. A poll conducted in October by Rasmussen

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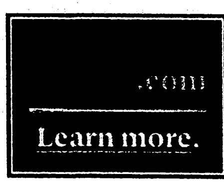

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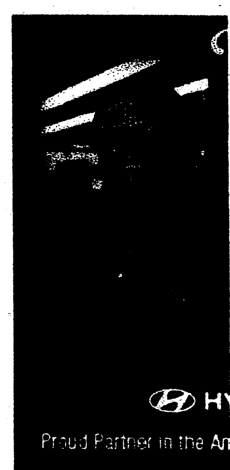

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gold standard, which was formally abandoned in 1971 during the Nixon administration. Men follow this debate more closely than women, and they support the gold standard by a wider margin.

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When asked how favorable they are to the idea of re-establishing hard currency, a plurality (44 percent) of the populace as a whole is either somewhat or very supportive.

When, however, Americans are informed that re-establishing the gold standard would "dramatically reduce the power of central bankers and political leaders to steer the economy," the favorability gap between men and women completely disappears, and 57 percent of all Americans say they support this step. The number is an impressive 69 percent among Republicans and 59 percent among voters not affiliated with either party, and it is a majority among nearly all demographic groups. Not surprisingly, the gold standard is essentially the default position of voters who count themselves as tea party adherents — they favor a return to the stability of gold as a standard of reference by an overwhelming 79 percent.

Numbers like these mean that a gold-backed currency is a sleeper issue in these final months of the Republican primaries and next year's general election. Gold has the potential to unite disparate elements of the electorate that sense the distortions in the economy that have been born of the Federal Reserve's ability to hemorrhage the money supply and the political class's ability to rain those dollars on a favored few like so many aerial leaflets. In fact, the political class, one of Rasmussen's regular polling subgroups, is among the very few that offer majority opposition (52 percent) to reducing their power to manipulate money.

Former Speaker Newt Gingrich (R-Ga.), Rep. Ron Paul (R-Texas) and businessman Herman Cain have been foremost among the GOP contenders in raising the issue of sound money to frontrunner status among campaign issues. It is no accident that their campaigns are ones that have generally centered on ideas and not on their résumés or fundraising prowess. At the recent Iowa Faith and Freedom summit, Gingrich called "for a dollar as good as gold." This insight is catching on, and it would be a fit subject for one of the three-hour Cain-Gingrich debates in the style of Lincoln and Douglas that may be in the offing.

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Finally, any analyst looking for a secret business agenda in the drive to restore gold as the benchmark of the dollar should ponder this: The idea has strong support among lower-income voters, union members and blacks. For many, the "stone" that matters most now is the money of gold. Candidates should take heed. Rebuilding a storehouse of value may become a storehouse of voters and the breakthrough issue of 2012.

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Jeffrey Bell is policy director at American Principles Project and head of its Gold Standard 2012 initiative.

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Gold Is Already Money in Switzerland

Olivier Ledoit

Utah Monetary Conference

Breakout Session 1 (Economics) - Monetary Roles of Precious Metals: Yesterday and Today

Monday, September 26, 2011

When asked: "Is gold money?" by the Chairman of the Subcommittee on Monetary Policy during his regular Congressional Testimony on July 13, 2011, Federal Reserve Chairman Ben Bernanke answered: "No". That is because he is American. If he was Swiss, this answer would be, technically speaking, incorrect.

Switzerland specializes in a certain type of banking, called private banking, which caters to so-called High Net Worth (HNW) individuals. These are people with at least one million dollars in net investible assets, excluding their home. You do not need to be Swiss to get the private banking treatment, but it helps if you live in Switzerland, because then you can make the most of your relationship with your private banker. The key condition is that *you cannot be American*. Swiss private banks no longer take American clients, or clients who have a green card, or clients who used to have a green card or American citizenship and relinquished it less than 10 years ago. The U.S. Internal Revenue Service is so aggressive that Swiss private banks consider American clients "toxic" and not worth the fees they bring in.[abcde]

If you are not American, and if you are a High Net Worth individual, Swiss private banks will actually go out of their way to make sure that – for you – gold is money, if that is what you ask of them.

Note that this is a key paradigm shift: to make something money has now become a unilateral decision. It is not a community decision: "Let's change the laws and declare gold is money." It is not even a bilateral decision: "Let's agree that you and I will use gold as money in our exchanges of goods and services." It is completely unilateral: "I decide to use gold as money." Right here. Right now. It is legal. No matter what everybody else uses as money.

This is made possible by modern technology, both electronic and financial. And it is actually very simple.

Let us start with bank X. This bank prefers its name not to be mentioned publicly. But it is a member of the Swiss Bankers Association, an exclusive club of only 13 banks, which have one thing in common: their managing partners have *unlimited* liability. If the bank goes bankrupt, somebody will come to seize their Ferraris and their Picassos to reimburse the clients who lost money. This is an unusual banking system, but it gives them a huge incentive to be conservative. Their Tier One Capital ratio is close to 100%. And they remain small enough in terms of personnel that the Managing Partners know everybody and what they do. In September 2008, everybody wanted to park their cash into such banks, because it was common knowledge that they would not take any risks with it. They had to actually turn down some cash, because it was getting beyond their capacity to handle! Contrast with other banks that had so much trouble retaining their assets under management because rumours were flying that they would go bankrupt... It just goes to show that in every crisis, there are winners and losers.

Bank X offers the following deal – but only to clients who ask for it. They will put all your money in a segregated gold account. This is like a warehouse receipt: the gold is in their vaults and has your name on it. Then this bank will offer you a Visa or MasterCard credit card. At the end of every month, you will receive the statement from the credit card company. You check the expenditures are all correct. You send a 1-word e-mail to your private banker saying: "Approved." He sells however many ounces of gold is necessary to cover your expenditures. Effectively, you paid in gold. But modern electronic and financial technology made it invisible to your counterparty. Your counterparty was paid in whatever currency they wanted: Swiss Francs, Euros or Dollars.

One objection might be: "Fine, but I am exposed to fluctuations in the price of gold over a month." Then cross the street to another bank called UBS, which is one of the two biggest banks in Switzerland. And it is not a member of the Swiss Bankers Association, because UBS is a *limited liability* company. Even if UBS goes bankrupt, nobody will come after its shareholders' and managers' Ferraris and Picassos.

UBS offer a debit card and a fully-backed gold Exchange Traded Fund (ETF). ETFs are like stocks, in that they trade on the stock exchange. But a gold ETF is pegged to the price of gold. This is a convenient way to invest in gold without being forced to take physical delivery. The gold ETF issued by UBS has one key advantage over its competitors: it is 100%-physically backed. For every ETF outstanding, there is the corresponding quantity of gold sitting in a vault at UBS, allocated to this ETF and to no other purpose, audited regularly. At any point in time, you are allowed to request physical delivery of the gold against your ETF in Switzerland, as long as it is in units of 400 ounces.

So what they do – and again, you have to ask for it – is that you can put all your money into a UBS gold ETF, and you can spend money using your debit card, which is accepted anywhere in Switzerland. At the end of every week, your private banker will sell exactly the amount of gold ETFs needed to cover your expenditures. You do not even have to do lift a finger: he will do it for you himself – if you are a HNW individual. Once again, this is exactly like using gold as your money. And your counterparty, the merchant who charged your debit card, did not know about it. He got Swiss Francs at whatever the prevailing rate was that particular week.

Finally, there is another Swiss private bank called Pâris Bertrand Sturdza, after the name of its three founders. And Mr. Pierre Pâris, the first of the three founders, is willing to invest his clients' money using an ounce of gold as the reference currency. What does this mean? You are familiar with the annual review of asset managers: "This year we did well, your portfolio went up 10%..." Or: "This year we managed to limit the damages in an unfavorable environment, your portfolio only went down 5%." Up 10%, down 5%, yes, but in what unit of reference? Some people use the US dollar as a unit of reference, or the Swiss Franc, or the Euro. Bank Pâris Bertrand Sturdza offers to use ounces of gold. Once again, you have to request it actively. But if you do, he will value your portfolio at the beginning of the year in ounces of gold, and at the end of the year he will see if you have more ounces of gold, and that will be his performance figure. He accepts to be judged by that standard.

For example, imagine at the beginning of the year you have 100 ounces of gold, and at the end you have 108. Then his performance will be +8% that year. Mr. Pierre Pâris aims to give you positive performance in the long run, in terms of gold ounces, consistent with your risk tolerance. He has developed investment strategies that are capable of delivering this objective.

In summary, if you are a rich person living in Switzerland, private bankers will go out of their way to monetize gold for you, provided that you take the initiative to pro-actively make the request.

This is an essential paradigm shift, as the usage of gold as money no longer requires asking the permission from the government or the accord of your trading counterparties. It just requires credit cards, debit cards and ETFs. And it requires being a rich non-American living in Switzerland.

So the real challenge is how to give everybody, not just high-net worth individuals, and not just the Swiss, the right to use gold as money if they want. Protecting this right starts with proclaiming that choice in currency is essential to life, liberty and the pursuit of happiness, and this is why we need the Utah Monetary Declaration.

[a] In July 2009, Swiss banking giant UBS blocked access to investment accounts held by American clients as it wound down offshore services with the US.

[b] Pierre Mirabaud told a lunch meeting of the American International Club of Geneva that his Mirabaud private bank would rather turn away clients and their investments than sign up to stringent rules imposed by the US authorities.

[c] Stefan Kern, the spokesman for Bank Raiffeisen in Saint-Gallen, said: "We are recommending our banks not to open any new client relations to clients living in the US. The future procedures with the US are unclear."

[d] Andy Sundberg of the Geneva-based American Citizens Abroad group said: "More banks are publicly announcing that they do not want American clients anymore. The banks are simply not willing to take such risks anymore and are simply eliminating American clients... The US administration has decided that it is justified to turn its citizens into *toxic clients*."

[e] Andreas C. Albrecht, chairman of the supervisory board of Basler Kantonalbank, told local daily Basler Zeitung in an interview published Wednesday September 14, 2011, that: "Looking back, I have to say it would have been wiser to close the door sooner for Americans, who only made up a marginal share of our business," adding that the bank stopped accepting U.S.-based clients in March 2009.

Utah Monetary Declaration

WHEREAS, the unalienable rights to life, liberty and the pursuit of happiness require for their full enjoyment the indispensable right to honorably acquire, use, hold and transfer property;

WHEREAS, money, a fundamental form of property, serving as a medium of exchange, a unit of measure, and a store of value, enables individuals to freely and collectively exercise their inherent rights within society;

WHEREAS, natural money, most commonly precious metal coin, by virtue of its intrinsic qualities of uniformity, divisibility, durability, portability, and scarcity, reliably retains its value over time, irrespective of any governmental declaration to require or prohibit its use;

WHEREAS, sound money, in whatever form, benefits society by maintaining stable purchasing power and circulating on a voluntary and unencumbered basis, thereby promoting prosperity and unity within any community upholding it;

WHEREAS, history attests that monopolistic monetary systems tend toward manipulation of the supply, composition and nature of money, resulting in lost purchasing power, inequitable wealth redistributions, misallocation of productive resources and chronic unemployment, thus impairing and potentially destroying life, liberty, property and happiness;

WHEREAS, for the equal protection and general welfare of all people, the open and unrestricted circulation of complementary and competing currencies establishes an effective check and balance against monopolistic monetary manipulations; and

WHEREAS, the right to choose constitutes the chief cornerstone of a free market and of a unified, prosperous and free society;

NOW THEREFORE, we the undersigned hereby declare and affirm that:

1. As an essential element of life, liberty and the pursuit of happiness in a free society, all people necessarily enjoy the inherent and unalienable right to lawfully and honorably acquire, use, hold and exchange whatever form or forms of money they may prefer, including especially gold and silver coin.

2. All free and sovereign states bear the moral, political and legal obligation to maintain, insofar as possible, reliably stable currencies, to afford redress for fraud, counterfeiting, embezzlement, theft or neglect in financial transactions, and to require transparency and accountability of all financial institutions.

3. No government should erect barriers to the unfettered circulation of monies issued under the authority of its sovereign trading partners, including the national government of The United States of America which has no power to demonetize through disparate tax treatment, discriminatory regulation, the threat of suppression and seizure, or otherwise, gold and silver coin monetized by any constituent state pursuant to its constitutionally reserved monetary powers.

4. No tax liability nor any regulatory scheme promoting one form of money over another should apply to: (a) the holding of any form of money, in a financial institution or otherwise; (b) the exchange of one form of money for any other; or (c) the actual or imputed increase in the purchasing power of one form of money as compared to another.

5. Governmental authority should never be used to compel payment of any obligation, contract or debt in any specific form of money inconsistent with the parties' agreement, except with respect to amounts due and directly payable to government itself.

6. Invalidating agreed monetary provisions, such as the application of a discount or surcharge dependent upon the particular medium of exchange or method of payment employed, constitutes an impermissible impairment of contractual obligations.

7. The extent and composition of a person's monetary holdings, including those on deposit with any financial institution, should never be subject to disclosure, search or seizure except upon adherence to due process safeguards such as requiring an adequate showing of probable cause to support the issuance, by a court of competent jurisdiction, of a lawful warrant or writ executed by legally authorized law enforcement officers.

We hereby urge business leaders, educators, members of the media, legislators, government officials, judicial and law enforcement officers as well as the public at large to use their best combined efforts to reinstate and promote the legal and commercial framework necessary to establish and maintain well-functioning, sound monetary systems featuring choice in currency.

The Case for Choice in Currency: A View from Mainstream Economics

Keynote Address by Dr. Olivier Ledoit at The Utah Monetary Summit, September 26th 2011

Choice in currency is being recognized as a basic human right around the world. Utah was the first State to make gold and silver coins legal tender alongside the U.S. dollar on March 25th, 2011. The State of Kelantan in the Federation of Malaysia was the first to mint gold and silver coins for the purpose of circulation on August 12th, 2010. Unlike Utah, Kelantan did not succeed at making gold and silver coins legal tender, but the Kelantan government still sells 8,000 gold *dinars* and 30,000 silver *dirhams* to its citizens every month. Thousands of local businesses accept these coins as payment.

In Switzerland, parliamentary initiative 11.407 was deposited on March 9th, 2011 to institute a "Gold Franc" as complementary currency alongside the Swiss Franc. While the Swiss initiative has not been approved yet, and while Gold Franc coins do not circulate yet, the Swiss initiative is unique because it is at the federal level, because Switzerland is a major financial center, and because it involves a popular referendum which would raise awareness about choice in currency among the whole Swiss citizenry, and beyond.

Which begs the question: What is the view of mainstream economic theory on choice in currency? The most celebrated development of the past few decades in Monetary Economics is the so-called "search model" of Kiyotaki and Wright (1989). It was published in the *Journal of Political Economy*, one of the oldest and most prestigious academic peer-reviewed research journals in the field. This model was so successful that it spawned hundreds of follow-up articles, most of which were published in similar-level journals or in more specialized journals. Several tenured academics at top-ranked Economics Departments in the U.S. have built their careers on "search models".

Search models are very simple. Agent A wants to sell a pair of shoes to buy a chair. She is randomly matched with other agents who have different goods to sell, and she is "searching" for the agent willing to sell a chair – call him Agent B. The difficulty is that Agent B may not need a new pair of shoes. This is the well-known problem of "double coincidence of wants". In the course of her random meetings with other agents, Agent A will first exchange her shoes against another good *which she does not want to consume*, but which she expects Agent B will accept in exchange for his chair. This good is called "money". The search model of Kiyotaki and Wright (1989) explains how money arises endogenously in an economy as the good which everybody expects everybody else will accept as payment.

In a University of Zurich Economics working paper entitled "On the Coexistence of Commodity Money with Fiat Money", we reviewed the literature on search models from the point of view of choice in currency. The four main results are summarized below.

1. If commodity money coexists in a country with fiat money, will one of them eventually oust the other, or can they both survive in the long run? The answer is that they can coexist. It is unlikely that precious-metal coins will ever become as widespread as banknotes, due to higher storage costs, but neither type of money will drive out the other, and they can coexist peacefully in equilibrium *ad infinitum*.

2. Is it in the best interest of society (welfare - enhancing) to monetize gold and/or silver? Yes: the monetization of precious-metal coins is Pareto-improving, meaning that it does not make any agent worse off, and it makes some agents better off.

3. How to solve the so-called "big problem of small change", meaning that the cost of minting gold coins in small denominations is prohibitively expensive? This can be solved by advances in financial and electronic technology. For example, a coin depository can accept physical gold and silver coins, and issue debit and/or credit cards against them to enable the purchase of small-ticket items.

4. Will the monetization of gold and silver restrict the margin of maneuver for the Central Bank to conduct monetary policy as it sees fit? No, as long as the Central Bank abides by its mandate to maintain price stability. Only a Central Bank desirous of emulating the monetary policy of Zimbabwe circa 2008 would see its freedom of action curtailed by the existence of gold and silver coins.

The conclusion of this review is that mainstream Economics is strongly supportive of choice in currency. The same could not be said of a straight return to the Gold Standard, which does have some proponents, but is generally frowned upon in mainstream academic circles. Thus, the current scientific consensus is that the reintroduction of gold and silver coins is feasible, desirable and largely uncontroversial, as long as it is done *alongside* national fiat currency.

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Brian Domitrovic

Economic Policy and the Road to Serfdom: The Watershed of 1913

We are perhaps apt to forget that during the Cold War, it was generally conceded that the Soviet Union had a higher rate of economic growth than the United States. Given that the United States accounted for nearly half of world output in 1945, the logic held that it did not have room to grow like the other nations of the world, which collectively accounted for the other half. Starting from a much lower base—and having gained an empire—the USSR surely could expect greater economic expansion than the United States.

There was no more confident advocate of this position than the postwar world's premier economist, Paul A. Samuelson. Samuelson touted the growth record of the USSR in his book *Economics: An Introductory Analysis*, the leading economics textbook of the era, and he said the same thing as adviser to those in power. When John F. Kennedy was running for president in 1960, Samuelson wrote to the Democratic candidate, "*America has definitely been falling behind not only with respect to the USSR, but with respect to most of the other advanced countries of the world*. For years, our production has been growing more slowly than that of Russia, Western Germany, Japan, [and a host of other countries]" (emphasis in the original).[1]

JFK offered no resistance to this point, and few others in Washington did either. By the 1980s, the CIA's national estimates held that the USSR's economy, which had been at mass famine levels four decades prior, was now half the size of that of the United States. The Soviet Union's rates of growth had been so much higher than those of the United States, according to U.S. intelligence, that the two economies were possibly on a path of convergence.[2]

Then, in 1989, an official in the USSR's national accounts bureau named Yuri Maltsev defected to the United States and revealed that by good standards of measurement, the Soviet economy stood at only *4 percent* of the U.S. total. After the Soviet state collapsed two years later, investigations by the World Bank, the International Monetary Fund, and the Organization for Economic Cooperation and Development concluded that the Soviet economy had been only half as big as the CIA reckoning, reaching about a fourth or a fifth the size of the U.S. economy. Maltsev stuck with his number, and soon he was joined by dissenters from

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within the Western statistical bureaucracies, such as William Easterly at the World Bank. An old rule of thumb in the face of two clusters of professional estimates is to split the difference. Applying the rule in this case, we can say that the Soviet economy peaked at about one-eighth the size of the American economy.[3]

Although the economic failures of the centrally planned Soviet state are now well documented, no less a champion of the free market than F. A. Hayek expressed doubts that free-market capitalism was superior to planning when it came to total output and standards of living. In *The Road to Serfdom* Hayek wrote:

> Which kind of values figure less prominently in the picture of the future held out to us by the popular writers and speakers . . . ? It is certainly not material comfort, certainly not a rise in our standard of living or the assurance of a certain status in society which ranks lower. Is there a popular writer or speaker who dares to suggest to the masses that they might have to make sacrifices of their material prospects for the enhancement of an ideal end? Is it not, in fact, entirely the other way round?[4]

The Road to Serfdom was a warning that collectivism is a temptation of the most serious sort, in that it had the ring of a good trade. In exchange for civil liberties, which is to say a high degree of personal, familial, and community autonomy, submission to a centralized state stood both to eliminate social inequality and to bring material well-being if not affluence.

This is one of the great overlooked aspects of *The Road to Serfdom*: Hayek is careful to argue for the market not on the grounds of what it may produce in terms of standards of living. Rather, he urges that yielding to the market will make us better persons, though it may make us economically poorer. Under "individualism," we will develop good values and habits "which are less esteemed and practiced now—independence, self-reliance, and the willingness to bear risks, the readiness to back one's own conviction against a majority, and the willingness to voluntary cooperation with one's neighbors."[5]

This defense of individualist over collectivist values is the book's strongest suit. But history has shown that the actual road to serfdom not only leads to the uncivilized value structure of which Hayek wrote so eloquently. It also debilitates living standards, despite Hayek's fears that there were *legitimate* reasons to be tempted by collectivism.

We should be careful not to fall into the common trap holding that economics is inevitably the science of trade-offs—a trap that snared even Hayek. He felt compelled to write *The Road to Serfdom* "to the socialists of all parties" because he believed that material well-being and social equality were plausible results of collectivism. Hayek's conclusion was perhaps not unreasonable at the time, given that the ascendant Nazi Germany was achieving a higher rate of economic growth than the less collectivist Britain to which he had fled. But in fact, such benefits are not plausible. More importantly, preparing the ground for collectivism at all may well introduce the slippery slope toward impoverishment more quickly than we think.[6]

Today, more than sixty-five years after the publication of *The Road to Serfdom*, the United States seems to be taking alarming steps in the collectivist direction. To understand where this path leads, we need not look at something so manifestly disastrous as the Soviet economy, whose

history is one of privation, supply-demand disconnect, constant rescues by foreign capital, and unsustainability tantamount to simple preposterousness. America's own history, while blessedly bereft of analogues to the Soviet experience, is itself quite clear about what happens when nods are made in the collectivist direction. For an investigation of the course of American economic history since the Civil War reveals a remarkable truth: *all* periods of prosperity in the United States have coincided with decided efforts to keep collectivist inclinations at bay, and *all* periods of economic weakness have occurred in the context of dalliances with collectivism—that is, with efforts to impose governmental management on the economy.

The frightening truth is that if America's leaders do not understand this history, our government may only double down on economic policies that have caused trouble in the past.

The American Economy: Potency and Act

The most significant fact about the past century and a half, treated as a statistical run, is that it had an inflection point. This was the one-third mark, 1913. Before that year, the macroeconomic performance of the United States, by the main measurements, was regular and strong. After that point, however, extended contractions and bouts of new, unfamiliar negative side effects—namely, unemployment and inflation—emerged rather out of the ether.

The most impressive half century in American—arguably world—economic history was that which followed the Civil War: the nearly fifty years from 1865 to 1913. The American economy expanded at a yearly rate of 3.62 percent from 1865 to 1913. By way of comparison, from 1913 to 2008 (also a peak-to-peak period), the American economy grew at 3.26 percent per year. The difference of about four-tenths of a percent per year proved enormous. Had the United States maintained the trend that held in the half century after the Civil War, it would now be about half again richer than it is now, in the second decade of the twenty-first century.

Macroeconomic performance is generally judged on two criteria: growth and "variation." Variation refers to the degree of steadiness of growth and of macroeconomic ill-effects, above all unemployment and price instability. Here again, the era of the Robber Barons is the shining one. The greatest decades of economic growth in American history were the 1870s and 1880s, when the economy expanded by two-thirds each time. There was one significant recession in this period, in 1873. It was overwhelmed so soon and so comprehensively that the 70 percent real growth gained in the 1870s amounts to the largest of any decade in the peacetime history of the United States.

As for the "panic of 1873" of textbook lore, that year brought a big drop in output, with people thrown out of work. The episode was a function of the incredible depreciation of the dollar that had been undertaken in the Civil War, when (following decades of price stability) the Union government printed greenbacks so quickly that the dollar suddenly lost half its value. After 1865, the U.S. government pledged to restore the value of the dollar against gold (and consumer prices), but doubts about this led to speculative investments to hedge the uncertainty and ultimately produced the asset crash of 1873.

In the wake of the 1873 bust, however, the dollar slowly reclaimed its value, just as the U.S. government had pledged. The price level declined by 1.4 percent per year on average for the next two decades, such that by the 1890s, a dollar saved before 1860 achieved its original purchasing

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power. As for unemployment, the term was not coined until the tail end of the century for a reason. The United States was importing tens of millions of immigrant workers on account of labor shortages given the growth boom.

President Barack Obama's first chair of the Council of Economic Advisers, Christina Romer, owes her professional reputation to her bringing to light these realities in her doctoral dissertation at MIT in the 1980s. Romer found that the era of the American industrial revolution (and by her analysis the trend held until 1930) was so superior in terms of growth and variation—growth was high; recessions were rare, shallow, and short; prices changed little as employment boomed—that it effectively defined the kind of results that governmental macroeconomic management should aspire to. The irony was that there was precious little macroeconomic management at all for most of this era. We can say with statistical precision that there has never been a golden era in American macroeconomic history like the 1870s and 1880s.[7]

There were two other significant recessions in the half century after the Civil War. These occurred in 1893 and 1907. Both cases correlated to governmental overtures to introduce macroeconomic policy. In 1890, the United States signaled that, despite having attained the very price level that had held for decades before the Civil War, as well as having watched growth cruise at more than 5 percent per year for the long term, it was now going to monetize a new asset, silver. The prospect was of too much currency in the economy (1873 redux), and the markets quickly swelled and crashed. The recovery from 1893 stayed tepid while President Grover Cleveland spent his term trying to end the silver lark. Aggregate output was flat from 1892 until the next election year, 1896; in the latter year, free-silverite William Jennings Bryan succeeded Cleveland as Democratic nominee for president. The strong recovery began only when, with the election of Republican William McKinley in 1896, the United States committed to dropping the program for the extra silver money. Overall, growth was slower in the 1890s than it had been in preceding decades—33 percent for the decade, a typical twentieth-century number. But from the year McKinley was elected until 1907, growth came in at 4.6 percent per year, approaching the 1870s–1880s standard of 5.2 percent annually. This is tantamount to saying that the real trend of yearly growth in the post–Civil War period was not 3.62 percent but something like 5 percent per year—because 5 percent held as long as the government stayed out of the way.

In 1907, there was another market crash and recession, only this time a strong and sustained recovery did not follow. The recovery, such as it was (3.3 percent growth per year until the 1913 peak), was haunted by a new prospect: that comprehensive new tools allowing governmental intervention into the economy would be put in place. Immediately in the wake of J. P. Morgan's famous settling of the markets in the fall of 1907, measures were introduced in Congress to create a federal reserve (or central banking) system that would be the first line of defense in any future crisis. In addition, the push for a federal income tax, which had died in the courts in recent years, gained renewed momentum.

Both of these massive means of governmental intrusion in the economy, the Federal Reserve and the income tax, were finally established in the same year: 1913—our inflection point.

Even though the mild recovery after 1907 occurred before 1913, its character-

istics actually may have owed themselves to 1913. Capital is known for looking to the future to take a gander at prospective returns. Had there been no prospect of the Fed and the income tax in the wake of the economic events of the fall of 1907, there may not have been a recession at all, let alone a weak recovery. For if 1908 had brought a recovery on the order of nearly 5 percent annual growth as had been initiated in 1896, we would not even call the 1907 event a recession. There were episodes in the 1880s where growth dipped and assets were sold, but the recoveries were so quick and so big that the down periods do not register to the naked eye. It is not out of the question that this fate was in store for the economy had the 1907 crash not been met with calls for a Fed and an income tax. This, of course, is a hypothetical point, but there is no shortage of historical evidence that is consistent with it. Christina Romer calculated that the recovery in industrial production from the 1907 event proceeded according to recent precedent until 1912.

The Variation Era

Perhaps the most forgotten period in American economic history is the eight years that followed the creation of the Fed and the income tax in 1913. From 1913 to 1921 the growth rate came in at just 1.4 percent per year. The period included two long recessions: one beginning in 1913, in which that year's level of production was equaled only two years later (and with the assistance of military production that did nothing for living standards), and another from 1919 to 1921 that was simply the worst depression the nation would ever suffer outside of the 1930s. "Unemployment" quickly joined the parlance; people scrambled to measure the phenomenon, and the consensus was that it stayed in the high double digits in the latter recession. And then this novelty: the price level went up by 110 percent from 1913 to 1920, and then swerved down in the year following by 25 percent. Strikes swept the land, since wages had no hope of keeping up with the unprecedented inflation, and the new income tax system hit persons making as little as $1,000 a year ($11,000 in today's terms).[8]

Before 1913, there had been at most only shadows of government fiscal and monetary policy, and the United States had cruised at its 5 percent per-annum rate of expansion, with the price level making small oscillations around the antebellum number. But after 1913, the government used its new macroeconomic policy tools to the hilt. Immediately after its creation, the Fed arranged for a doubling of the money supply—this in the face of a manifest recession. The inevitable result was the doubling of the price level. As for income taxes, the first top rate, upon passage of the Sixteenth Amendment in 1913, was 7 percent. In four years' time, it was up elevenfold, to 77 percent. Meanwhile, someone whose income merely kept up with the inflation engineered by the Fed—that is, someone who saw no *actual* gain in income—could be pushed into the stratospheric top tax bracket, since the progressive tax brackets were not adjusted for inflation. (This is the phenomenon known as bracket creep.) The investor class soon adjusted away from entrepreneurship and into tax shelters.

Then there was the recovery—perhaps the most famous recovery in American history. The Roaring '20s that followed 1921 aped the bygone era very well: 4.7 percent yearly growth through 1929, unemployment gone, and a price level that barely moved. The government's macroeconomic policy posture during this period is unmistakable: the Fed expressly got out of the business of trying to undo

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the 1913–20 inflation via a commensurate massive deflation, and the marginal rate of the income tax was cut by 52 points. In other words, fiscal and monetary policy retreated.

How we have ever associated the onset of the Great Depression with a "crisis of capitalism" is anyone's guess. In fact, the years 1929–33 brought historic governmental intrusions in the economy. In late 1929, the Fed resumed its 1920–21 efforts to reclaim the 1913 price level by appreciating the value of the dollar. Deflation held at 9 percent per year from late 1929 to early 1932, blowing away the gentle deflation standard of the post-1873 years that had seen constant, rapid growth. Over the same interval, the marginal income tax rate jumped by a magnitude of one and a half, to 63 percent. Severe deflation and confiscatory taxes led to a capital strike, with savage unemployment being the inevitable result. And this is not to mention the Smoot-Hawley Act of 1930, which raised tariffs to record levels, cut foreign trade in half, and convinced the world that convertible currencies—and indeed international economic cooperation—were no longer useful.

In other words, fiscal and monetary policy extended their scope and sway as never before. In turn, real conditions in the United States became as horrendous as any developed country had experienced since the dawn of the industrial age.

All of this macroeconomic intervention occurred during the Herbert Hoover administration, *before* Franklin Roosevelt took office and instituted his New Deal. Under FDR, the Fed and the U.S. Treasury actually dropped the misguided deflationist policy. By raising the gold redemption price 75 percent, to $35 per ounce, the government effectively announced that the United States would never strive to appreciate the dollar again. It remained an open question whether the U.S. government would strive to depreciate the currency, but in point of fact it did not. The consumer price index from 1934 to 1940 mimicked the band of oscillation that had prevailed in the era of the Robber Barons: small moves around par.

FDR: On the Road to Serfdom

But while the Roosevelt administration reversed course on monetary policy, it only built on Hoover's fiscal policy. FDR increased the marginal tax rate even more, sending it up to 73 percent—nearly triple the rate that had supervised the Roaring '20s.

This mixed record on monetary and fiscal policy produced a mixed recovery at best. Output did go up slightly during this period, and by 1939 it finally returned to the 1929 level (adjusting for population, which grew at a tiny rate). But instead of posting a peak-to-peak growth rate in output of 4–5 percent per year, as had been usual before 1913, the New Deal recovery—not the *mot juste*—was nil peak to peak.

From 1940 to 1944, gross domestic

product (GDP) boomed in the United States as living standards collapsed. We should not be detained by the aggregate output, or even the employment, statistics of the World War II years if the topic under consideration is economic recovery. The amount of goods and services produced for the real sector hit bottom with the war. Government/military goods, which are not real goods, became the exclusive specialization of the American economy in this period. Calling the 1940–44 run tantamount to a recovery (let alone a great one), as is so often done, is one of the great misnomers of modern economic history.

Consider two pertinent questions about this period. First, given that employment rebounded massively during the war, but that pay for those employed had to be saved on account of the shortages, did that saved pay retain its value after the war? And second, was the GDP boom of 1940–44 consolidated and built on as the economy cycled into real production?

The answer to the first question is that the saved pay did not retain its value, meaning that one cannot really hold that there had been a true return to full employment during the war. From 1944 to 1948, the United States experienced inflation of 42 percent (the Fed had been expansionist again), devaluing savings accrued before that time. Moreover, redemptions of U.S. war bonds (where so much of workers' pay had gone during World War II) were taxed at one's marginal income tax rate, and rates were jacked up across the board, the top one reaching 91 percent. Therefore, when World War II employees redeemed the bonds after the war, the World War II employer—the government—recovered much of what it had laid out in pay to its workers. A conservative estimate is that given inflation and taxes, the average World War II worker lost half of his or her pay to the government. In economic terms, this means that World War II solved the unemployment problem of the 1930s only half as much as is commonly supposed.

As for the second question, GDP fell precipitously from 1944 to 1947, by 13 percent, as prices soared. This was a clear indication that the growth of the war years was artificial. Nonetheless, living standards improved, as the real sector made huge inroads into the government's share of economic production. Then a transition hit: the postwar inflation stopped. This occurred because the U.S. government focused on its commitment to the world made at the 1944 Bretton Woods conference that it would not overproduce the dollar so as to jeopardize the $35 gold price. And when Republicans won control of Congress in 1946, they insisted on getting a tax cut; they finally passed it over President Harry Truman's veto in April 1948. The institutions of 1913 had signaled a posture of retreat.

That is when postwar prosperity got going. From 1947 to 1953, growth rolled in at the old familiar rate of 4.6 percent per annum, as unemployment dived and prices stayed at par except for a strange 8 percent burst just as the Korean War started.

Taxes were still high, however, with rates that started at 20 percent and peaked at 91 percent. When recession hit in 1953, a chorus rose that they be hacked away. But for the eight years of his presidency, Dwight D. Eisenhower resisted these calls for tax relief. Despite the common myth of "Eisenhower prosperity," the years 1953 to 1960 saw economic growth far below the old par, at only 2.4 percent, and there were three recessions during this period. Monetary policy, for its part, was unremarkable. Once again the coincidence held: unremarkable monetary policy and aggressive tax policy led to a half-baked result.

Much ink has been spilled on how

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the JFK tax cuts of 1962 and 1964 were "Keynesian" and "demand-side." Whatever we want to call the policy mix of the day, in the JFK and early Lyndon B. Johnson years, fiscal and monetary policy clearly retreated. Income taxes got cut across the board, with every rate in the Eisenhower structure going down, the top from 91 percent to 70 percent, the bottom from 20 percent to 14 percent. And monetary policy zeroed in (at least through 1965) on a stable value of the dollar, with the gold price and the price level sticking at par after making startling moves up with the final Eisenhower recessions. The results: from 1961 to 1968, real U.S. growth was 5.1 percent yearly; unemployment hit peacetime lows; and inflation held in the heroic 1 percent range before the latter third of the period, when it began creeping up by a point a year. The real effects inspired slogans. If four decades prior had been the "Roaring '20s," these were the "Swingin' '60s" and "The Go-Go Years."

At the end of the decade, however, the government loudly signaled a reversal in fiscal and monetary policy. The Fed volunteered that it would finance budget deficits, and LBJ pleaded for and got an income tax surcharge, soon accompanied (under Richard M. Nixon) by an increase in the capital-gains rate on the order of 100 percent. This two-front reassertion of fiscal and monetary policy held for a dozen years. The nickname eventually given to that period, in view of the real effects, was the "stagflation era" (for stagnation plus inflation). From 1969 to 1982, real GDP went to half that of the Go-Go Years, to 2.46 percent; the price level tripled (with gold going up twentyfold); average unemployment roughly doubled to 7.5 percent; three double-dip recessions occurred; and stocks and bonds suffered a 75 percent real loss. It was the worst decade of American macroeconomic history save the 1930s, and it inspired Christina Romer to write a dissertation.

Paul Volcker took over the Fed chairmanship in 1979. He was determined to stabilize the dollar (given the recent 200 percent inflation) at least against prices, if not against gold and foreign exchange. He ultimately did this well enough with the support of the Ronald Reagan administration. The average inflation rate for the period after 1982, and beginning strongly in that year, was about a third of what had prevailed in the 1970s—3 percent as opposed to 9 percent. The monetary authorities even came to announce that they were pursuing "inflation targeting." This retreat in monetary policy was once again coupled with Kennedyesque tax policy, with all rates getting reduced substantially, and most of the brackets eliminated in the bargain. "The Great Moderation" became the term coined to describe the 1982–2007 period, where annual growth came in at 3.3 percent, with seven-year runs at 4.3 percent in the 1980s and 1990s. There were only two recessions in this period, both mild. GDP growth got in the tightest band ever recorded since quarterly statistics began in 1947. Average unemployment went down to half the stagflation level.

Finally, with the "Great Recession" of 2008–10—which even with its five down quarters of GDP growth and 10 percent unemployment does not equal the extent of the 1980–82 double-dip recession—monetary policy has declared its everlasting intention to be relevant again. Taxes are set to rise by statute in 2011, and by commission after that so as to cover federal spending 50 percent larger than we are accustomed to. Once again the series is maintained. A growth stoppage along with variation coincides with the rearing of the heads of fiscal and monetary policy.

Business versus Busy-ness

The post-1913 period of American economic history is a world of fits and starts, at least until the Great Moderation which dissipated with the government bailouts of 2008–9. In contrast, the pre-1913 era has an integrity, a statics, with patterns that hold for a long time. Its story is easier to relate. Variation, when it came in that bygone time, coincided with the weird appearance of a shadow, that of an overseer seeking power to bend things to a different course.

The era of the Robber Barons was one of business, perhaps the most supreme there ever was. The post-1913 era—the macroeconomic era, the era of policy—was rather one of busy-ness. Economic performance shed its regularity and constant peak nature in favor of previously unheard-of growth swings, so much so that a clamor started to measure that very thing, and to do so quarterly.

In the canons of macroeconomics, fiscal and monetary policy are supposed to bring "stabilization" to an economy. That is, policy will smooth out the cycle of boom and bust and reduce the parameters of inflation and unemployment. Advocates of macroeconomic policy have long conceded that there will have to be trade-offs in exchange for these benefits. Lower growth will be the price for smoothness. Some unemployment or inflation will have to exist at the expense of the other.

And yet from a simple statistical perspective, it is clear that the macroeconomic era gave evidence not so much of trade-offs as diminutions across the board. Growth was both smoother and higher in the pre-1913 era. Unemployment and inflation not only did not exist inversely to each other; they did not exist at all.

What have been the costs of having macroeconomic policy? Recall that the real growth trend of the pre-1913 era was something like 5 percent per annum, not the recorded 3.62 percent. The unusual breakdowns in the long peak-growth runs in that era occurred when the government attempted to introduce macroeconomic policy. This means that the real output lost to us since 1913 is not 50 percent, but 500 percent. Had we grown at 5 percent annually since 1913, instead of at the 3.26 percent that in fact happened, we would be five times better off today.

We can remonstrate that correlation is not causation. Perhaps fiscal and monetary policy had nothing to do with the sub–Gilded Age performance of the economy since 1913. Perhaps their absence had nothing to do with the impressiveness of economic performance before then. After all, other things were at work. Maybe so. But we can say one thing for certain. The correlation is fact. Every period of sustained peak economic activity in the United States since 1865 has correlated to the nonexistence, or the blanket retreat, of fiscal and monetary policy.

Although correlation is not causation, the United States will be foolish and reckless to maintain current policy in the face of its unambiguous economic record. Macroeconomic policy, as much as any outright push toward collectivism, is on the record as putting us on the road to serfdom. And if we think there is a high bottom which will always catch us in our mistakes, we are indulging an optimism not based on the lessons of history.

Notes

1 P. A. Samuelson, "For Senator Kennedy: Notes on the Economic Problem of Growth," Box 1, F "Growth Work 1960 [2 of 2]," 7, James M. Tobin papers, John F. Kennedy Presidential Library, Boston, MA.

2 The CIA National Intelligence estimates of

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Soviet output proved one of the great black eyes the agency ever endured, and its representatives fought back hard. But in contentious responses to charges made in the 1990s about the low quality of its official estimates, the CIA did not back off the fact that its sizing of Soviet GDP fell between "60 percent" and "two-fifths" of U.S. output. Douglas J. MacEachin, "CIA Assessments of the Soviet Union: The Record Versus the Charges," subheading "The Tyrannical Numbers," available at https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/cia-assessments-of-the-soviet-union-the-record-versus-the-charges/3496toc.html. See also James Noren, "CIA's Analysis of the Soviet Economy," in "CIA's Analysis of the Soviet Union, 1947–1991," available at https://www.cia.gov/library/center-for-the-study-of-intelligence/csi-publications/books-and-monographs/watching-the-bear-essays-on-cias-analysis-of-the-soviet-union/intro.htm; and Noel E. Firth and James H. Noren, *Soviet Defense Spending: A History of CIA Estimates, 1950–1990* (College Station, TX: Texas A&M University Press, 1998).

3 Yuri Maltsev, "Too Big to Fail? Lessons in Economics from the Demise of the Soviet Union," paper, Gulf Coast Economics Association Conference, Savannah, GA, November 9, 2009; William Easterly and Stanley Fischer, "The Soviet Economic Decline," *World Bank Economic Review* 9, no. 3, 341–71.

4 F. A. Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1994), 234.

5 Ibid., 233.

6 Germany's growth from the trough of the Depression in 1932 until 1940 was nearly twice that of Britain's: 71 percent to 39 percent. See the Angus Maddison database, "Statistics on World Population, GDP, and Per Capita GDP, 1–2008 AD" (which is the foundation of the OECD database), at http://www.ggdc.net/maddison/.

7 Christina Duckworth Romer, "The Instability of the Prewar Economy Reconsidered: A Critical Reexamination of Historical Macroeconomic Data," Ph.D. dissertation, MIT, Cambridge, MA, 1985.

8 Inflation statistics are derived from "Table Containing History of CPI-U.S.: All Items Indexes and Annual Percent Changes from 1913 to Present," Bureau of Labor Statistics, at bls.gov; growth statistics come from measuringworth.com and bea.gov (Bureau of Economic Analysis); and tax statistics come from the Tax Foundation, http://www.taxfoundation.org/files/federalindividualratehistory-20080107.pdf.

The Redistributive Effects of Monetary Policy

Olivier Ledoit

Presented at Utah State University Department of Economics, September 27th, 2011

Non-Technical Summary

Disastrous experiments with printing paper money are not new. Most people remember the expression "not worth a Continental", which refers to the rapidly depreciating paper Continental Dollar of the American Revolutionary War. 60 years before that unfortunate episode, France had a first experiment with paper money which also ended in tears. It was named "Law's system", after the professional gambler John Law. During his dissolute youth, Duke Philip of Orleans became fast friends with John Law, and when the Duke became Regent of France a few years later, he naturally asked his old drinking and skirt-chasing buddy John Law to become his Minister of Finance.[i] Such unabashed cronyism could not happen today... could it?

John Law used his ministerial powers to create a bank called "Banque Générale", which printed paper money out of thin air and, predictably, came to an ignominious end in 1720. For a century afterwards the word "Bank" remained in such disrepute that banks like *Société Générale*, one of the oldest and largest banks in France to this day, studiously avoided using the word "Bank" in their name. The only good to came out of this affair is that an Irish businessman named Richard Cantillon made a fortune by speculating first with, and then against, John Law's bubble, and subsequently wrote an economic treatise entitled "Essay on the Nature of Trade in General" distilling the wisdom he had acquired in the process. Cantillon was cited as an inspiration by no less a luminary than Adam Smith in his famous "Wealth of Nations", the book that launched economic science as we know it.

The most valuable insight bequeathed to us by Richard Cantillon is that, when money is artificially created, the *first* persons to lay their hands on it can spend it to increase their consumption before prices have risen, but it is the exact opposite for the *last* persons to lay their hand on the newly created

money, so they must decrease their consumption accordingly. If we visualize the economy as a series of concentric circles around the point where money is injected, creating money redistributes real resources from the outer circle to the inner circle. We can call this the "Cantillon effect".

While this effect was well known and generally accepted in the 18th and 19th centuries, it has been forgotten today. We live in a time where a great quantity of money is being created out of thin air (see Figure 1), so it would be useful to understand how this redistributes real resources. The Cantillon effect was forgotten because the neo-classical paradigm which reigns supreme in mainstream Economics today deals mainly with aggregates and representative agents, so it is ill-equipped to detect a redistributive effect *between* agents. The challenge is to design a model that fits within the framework of modern neo-classical Economics yet enables us to verify rigorously Richard Cantillon's pre-classical intuition. This is the subject of a University of Zurich Department of Economics working paper entitled "The Redistributive Effect of Monetary Policy". In this paper, the economy is modelled not as one amorphous aggregate but as a *social network*. The key characteristic of a social network is that every agent is economically linked to a small number of agents compared to the total number of agents in the economy. For example, the average person uses the services of only one or two hairdressers, compared to the thousands of hairdressers who are potentially available. Similarly, the average person is economically linked only to one employer, compared to the millions of potential employers that exist in the world.

Other examples of social networks include Facebook, which has more than 800 million members, but where the average member only has 130 friends. The internet is also a social network because every web page has links only to 80 web pages on average out of the 25 billion that exist. This vision of the world gave birth to the famous *Six degrees of separation* theory, which was made into a Hollywood movie starring Will Smith, and states that any person in the world is related to any other person in the world by a chain of at most six links: "I know John who knows Mary who knows... etc."

Modelling the economy as a social network enables us to define notions of *proximity*, *distance* and *location*, which are necessary to express and test Cantillon's intuition. While it would be nice to study networks in general, economic science tends to prefer models that are sufficiently simplified to yield closed-form mathematical solutions. What is sacrificed in realism is

compensated by deeper understanding of the interaction between the various parameters and assumptions.

The simplest economic network is a circle. Let us say that there are only 10 people in the economy (any other number would also do). They are arranged along a circle in such a way that every agent only has economic relationships with his neighbor to the left and his neighbor to the right. Thus, out of a total of 45 potential economic connections, only 10 are active. The other people do not trade with one another. This is illustrated by Figure 2. This is consistent with the "Six degrees of separation" theory, as every agent is separated from every other agent by no more than six links.

We assume that all people are identical in terms of wealth and preferences. In the absence of a central bank, this would be a "rotation-invariant economy", in the sense that rotating the whole model clockwise by one notch would give exactly the same result. Everybody would be equal.

Now let the Federal Reserve inject money into the economic circle by buying the assets of Agent 1. Then we can prove mathematically that Agent 1 will be better off. The value of his assets goes up because the Fed is buying them. Agent 1 can use his newfound wealth to go shopping for things he likes. Agent 6, who is diametrically opposite from Agent 1, and the furthest from the point where money is injected, is worse off. The prices of everything she consumes has gone up, but she does not have enough money to make up for it, so she must reduce her consumption. The net effect is that monetary creation has redistributed real resources from Agent 6 to Agent 1. This confirms formally that Cantillon's intuition was correct.

In practice, who is Agent 1? It is anyone who sells assets that sit on the balance sheet of the Federal Reserve. A quick look at this balance sheet reveals that it mainly contains U.S. Government bonds, and toxic assets manufactured by investment banks (see Figure 3). Thus the winners of the redistribution are the Federal Government and Wall Street. The losers are whoever is furthest removed from the Federal Reserve in terms of economic distance.

This notion of "Economic Distance from the Fed" is key. We can define an "EDF index", where EDF stands for *Economic Distance from the Fed*, to describe the place of every agent in the economy. By definition, the Fed has EDF-0 index. Whoever produces assets that sit on the Fed's balance sheet – the Federal Government and Wall Street – has EDF-1 index. Whoever deals directly with EDF-1 entities has an EDF-2 index. Whoever deals with EDF-2

has EDF-3, and so forth. Within the "Six degrees of separation" theory, the furthest removed anyone can be from the Fed is EDF-6. Who might that be? Small-to-medium business people in Utah and their employees are EDF-6. The median voter in most States, except perhaps D.C., New York, Connecticut and a few others, is EDF-6. EDF-6 is the silent majority. EDF-6 is Main Street. Main Street is the loser from this redistribution effect. Monetary policy redistributes real resources from Main Street to the Federal Government and to Wall Street.

The only way for Main Street to get some degree of protection against this redistribution is to use (at least partially) another form of currency that cannot be created by the Federal Reserve or by a foreign Central Bank. Gold and silver coins are prime candidates. This is why it is so urgent and important to pass new legislation consistent with the Utah Monetary Declaration promoting **choice in currency**.

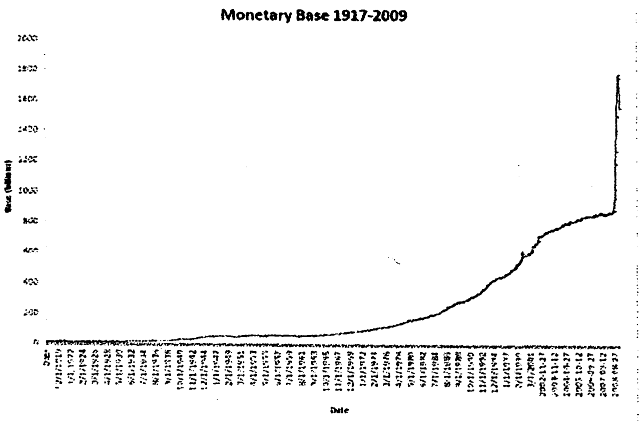

Figure 1

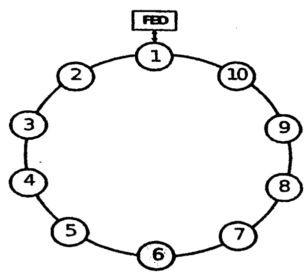

Figure 2

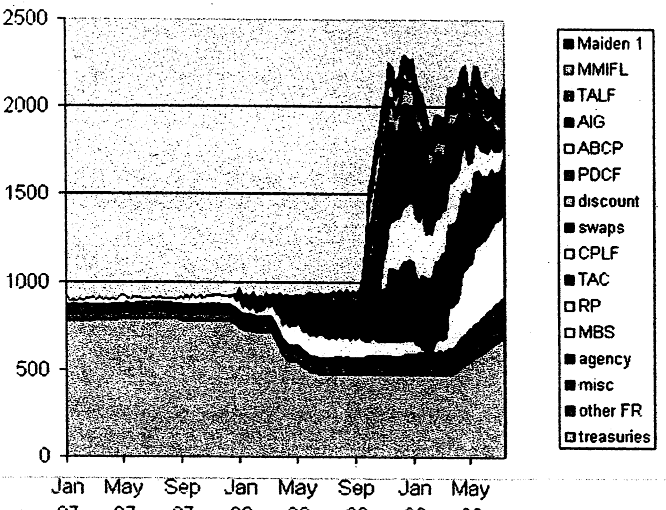

Figure 3

i Charles Mackay, *Extraordinary Popular Delusions and the Madness of Crowds,* 1841, Chapter 1.

Overview of State and Federal Concurrent Monetary Powers
By Thomas Selgas, United States Bill of Rights Foundation

I. State Monetary Authority.

The Constitution of the United States reserves explicit monetary powers to each State, consisting of the following:

1) **Sovereign Taxing Authority.** Each state has the exclusive right to impose direct taxes on both the real and personal property of her citizens (Art. I §2 cl. 3; Art. I §8 cl. 1; Art. I §9 cls. 4 and 5; *BRUSHABER v. UNION PAC. R.R.*, 240 U.S. 1 (1916) and *STANTON v. BALTIC MINING CO.*, 240 U.S. 103 (1916), see also *POLLOCK v. FARMERS' LOAN & TRUST CO.*, 157 U.S. 429 (1895)). In addition, the U.S. Supreme Court recognized in *LANE COUNTY V. OREGON*, 74 U. S. 71 (1868) that in the performance of its "essential functions" a State possesses broad powers to specify acceptable tender for the payment of taxes:

> If, therefore, the condition of any State, in the judgment of its legislature, requires the collection of taxes in kind, that is to say, by the delivery to the proper officers of a certain proportion of products, or in gold and silver bullion, or in gold and silver coin, it is not easy to see upon what principle the national legislature can interfere with the exercise, to that end, of this power, original in the States, and never as yet surrendered. If this be so, it is, certainly a reasonable conclusion that Congress did not intend, by the general terms of the currency acts, to restrain the exercise of this power in the manner shown by the statutes of Oregon.

Thus, a State may declare anything it desires – "proportion of products", shells (as were used during a period in Maryland), gold and silver bullion, or gold and silver coin as cited in *Lane County* – for the payment of taxes. Accordingly, Utah's ability to use any form of gold and silver for the collection of taxes is beyond question.

2) **Designation of Tender.**
Each state also has the power to declare any independently minted gold and silver coin a tender for payments of debts (Art. I §10 cl. 1, affirmed in the 10th Amendment thereto). The Supreme Court in *BRONSON V. RODES,* 74 U. S. 229, 245-246 (1868) held:

> Payment of money is delivery by the debtor to the creditor of the amount due. A contract to pay a certain number of dollars in gold or silver coins is, therefore, in legal import, nothing else than an agreement to deliver a certain weight of standard gold, to be ascertained by a count of coins, each of which is certified to contain a definite proportion of that weight. It is not distinguishable, as we think, in principle, from a contract to deliver an equal weight of bullion of equal fineness. It is distinguishable, in circumstance, only by the fact that the sufficiency of the amount to be tendered in payment must be ascertained, in the case of bullion, by assay and the scales, while in the case of coin it may be ascertained by count.

Meaning that States may declare weights of gold and silver bullion as tender, just as if it were coin cited in Art. I §10 cl. 1 of the Constitution.

II. Federal Monetary Authority.

The Constitution provides Congress with the authority to coin Money, regulate the Value thereof, and of foreign Coin, and fix the Standard of Weights and Measures (Art. I §8 cl. 5). While Congress' authority to coin money is exclusive (Art. I §10 cl. 1), its powers to regulate the Value thereof, and of foreign Coin, are not. Further, certain limitations of Congressional monetary powers exist:

1) **No Power to Alter the Constitutional Dollar**. The Constitution does permit Congress to refix constitutional Standards of Weights and Measures, without a constitutional amendment, *EISNER v. MACOMBER*, 252 U.S. 189, 206 (1920). Thus, referring to the Constitutional Units of Measure table below, Congress can no more declare a year to be ten revolutions of the earth around the sun's axis as it can to declare a mile to be the linear measure equal to the circumference of the earth at the equator.

Constitutional Units of Measure

Unit of Measure	Times Stated	Existing Definition When Constitution Ratified
Year	33	One revolution of the earth around the sun's axis
Day	21	One revolution of the earth around it's own axis
Hour	1	15 degree rotation of the earth around it's own axis
Mile	1	A unit of linear measure equal to 5,280 feet
Dollar	2	A coin containing 371.25 grains of silver

Likewise, Congress cannot alter the definition of a dollar to be something other than a coin containing 371.25 grains of fine silver. The dollar predated the Constitution, already having a specific well-understood meaning when the drafters referred to the "dollar" in Art. I §9 cl. 1 of the Constitution and in the 7th amendment thereto. This meaning was historically recognized in §9 of the Coinage Act of 2 April 1792 and is currently expressed in 31 USC §5116(b)(2) as 1.292929292 dollars per troy ounce of fine silver content. Thus, Congress' attempt to redefine the dollar as equal to one ounce of fine silver in 31 USC §5112(e)(4) is Constitutionally flawed.

The value of gold coin, on the other hand, is to be regulated in relation to the dollar. Thus, 31 USC §5117(b) sets an exchange rate of 42 and 2/9ths troy ounces per dollar. This applies to all bullion and coin other than that minted by the U.S. after December 17, 1985 which pursuant to 31 USC §5112(a)(7), (8) and (10) is valued at $50 per troy ounce for U.S. Coin stamped in $50, $25 and $5 denominations, respectively. Curiously, under 31 USC §5112(a)(9), $10 gold coins are valued at $40 per troy ounce.

By periodically adjusting gold coin's relative value to silver, the Secretary of Treasury is to maintain the equal purchasing power of each kind of United States currency as mandated by Congress at Title 31 U.S.C. §5119(a). Also, Federal Reserve bank notes are to be redeemable in lawful money as required by 12 USC §411.

2) **No Power to Impose Disparate Valuations of Specie and Paper "Dollars".** As provided in 31 USC § 5101 "United States money is expressed in dollars". Further, 31 USC § 5103 states that:

> United States coins and currency (including Federal reserve notes and circulating notes of Federal reserve banks and national banks) are legal tender for all debts, public charges, taxes, and dues.

In THOMPSON v. BUTLER, 95 U.S. 694, 696 (1878) the Supreme Court held that:

> One owing a debt may pay it in gold coin or legal-tender notes of the United States, as he chooses, unless there is something to the contrary in the obligation out of which the debt arises. **A coin dollar is worth no more for the purposes of tender in payment of an ordinary debt than a note dollar.** The law has not made the note a standard of value any more than coin. It is true that in the market, as an article of merchandise, one is of greater value than the other; but as money, that is to say, as a medium of exchange, **the law knows no difference between them.** (*emphasis added*) *Thompson v. Butler* was most recently cited in: *Crummey v. Klein Independent School District* (Unpublished Opinion, U.S. Ct. App. for the 5th Circuit, No. 08-20133, 2 October 2008).

Because, there is no legal distinction between a specie and paper dollar. A taxpayer might well transact business in specie, but pay taxes in paper note dollars based on the face amount. This potentiality is underscored by the U.S. Treasury's explanation at: http://www.treasury.gov/resource-center/faqs/Currency/Pages/legal-tender.aspx:

> There is, however, no Federal statute mandating that a private business, a person or an organization must accept currency or coins as for payment for goods and/or services. Private businesses are free to develop their own policies on whether or not to accept cash unless there is a State law which says otherwise.

Of course to avoid this problem, any state or federal taxing authority could require tax payments in kind, as approved in *Lane County, supra,* based on the the type of legal tender used in the underlying taxable transaction. For example, the Civil War income tax imposed a duty on "all persons required to make returns or lists of income * * * to declare in such returns or lists whether the * * * amounts therein contained are stated according to their values in legal tender currency or * * * coined money", and required assessors "to reduce such * * * amounts [stated in coined money] to their equivalent in legal tender currency, according to the value of such coined money in said currency". See: Act of 13 July 1866, ch. 184, § 9, 14 Stat. 98, 147, amending Act of 10 March 1866, ch. 15, §§ 3-5, 14 Stat. 4, 5, repealed by Act of 14 July 1870, ch. 255, § 1, 16 Stat. 256, 256. See, PACIFIC INSURANCE CO. v. SOULE, 74 U.S. (7 Wall.) 433, 440-43 (1869).

3) **No Power to Demonetize State Legal Tender**. As recognized in by the U.S. Supreme Court in MCCULLOUGH v. MARYLAND, 17 U.S. 316 (1819), "the power to tax is the power to destroy." In that case, a state was precluded from imposing taxation upon

the Bank of the United States chartered by Congress. The court reasoned that although States possess the power of taxation concurrently with Congress, that power must yield when in conflict with the supreme law of the land.

The same reasoning would dictate that the declaration of any State, pursuant to the power expressly reserved to the States in Art. I §10 cl. 1 of the Constitution, that a particular class of gold and silver coin shall be legal tender within that State, should likewise be accorded the status of being the supreme law of the land. As a government of defined and limited powers, the authority of Congress to tax and to regulate simply cannot extend into a field expressly reserved to the States.

Admittedly, Congress does possess broad monetary powers under Art. I §8. Nevertheless, the States' reserved Art. I §10 cl. 1 monetary authority necessarily operates as an express carve out of Congressional authority. To conclude otherwise would render the Art. I §10 cl. 1 reserved power meaningless and void, since under the rationale adopted in *McCullough*, any power to tax or regulate left to Congress would be tantamount to a power to destroy the monetary character of State declared legal tender.

III. Gold Clause Contracts.

The Constitution also provides that No State shall make Law impairing the Obligation of Contracts (Art. I §10 cl. 1). This means that Citizen's have a Constitutional right to engage in such gold and silver clause contracts, and the State has the duty to protect the enforcement of such contracts. Thus the right to engage in gold and silver clause contracts is not merely a Federal statutory right -- currently codified at 31 U.S.C. 5118(d)(2) – which simply can be repealed as done during the Roosevelt administration, but a Constitutional right which can and should be enforceable in State Courts.

IV. Conclusion.

As Utah proceeds to implement its sound Constitutional monetary reforms, it should keep in mind that the State may monetize virtually any class of coin or bullion for the payment of debts so long as such media of exchange is minted independent of the State. Further, to avoid loss of tax revenue, the legislature should seriously consider requiring payment of taxes in kind, proportional to the type of legal tender used in the underlying taxable transaction. By doing so, the State can avoid setting any specie/paper dollar exchange rates which would be at odds with federal statutory or Constitutional rates. Finally, given Congress' past suppression of Constitutionally protected gold clause contracts, the legislature should consider independent statutory protections of such agreements at the state level.

State Monetary Authority

While the term "State Monetary Authority" may seem to be an oxymoron to some, a careful examination of the United States Constitution and the circumstances surrounding its adoption reveals that the founders contemplated a role for both the federal and state governments with respect to the monetary policy of the nation. Three distinct but interrelated issues bear upon the interplay of these respective monetary roles; namely, a state's power to declare gold and silver coin to be legal tender, the extent of that power, and the consequences of its exercise. This paper analyzes the precedents and principals bearing on these questions with special emphasis on the State of Utah, which recently adopted the Utah Legal Tender Act pursuant to its constitutional state monetary authority.

Under article 1 § 8 of the United States Constitution, congress is granted power to "coin money, regulate the value thereof and of foreign coin". Section 10 of the same article prohibits states from "coining money or making anything but gold and silver coin a tender for payment of debts." Significantly, this provision is one of only two express reservations of state authority included in the Constitution as originally ratified.

Within the first century of our country's history, the Supreme Court had addressed the right of a state to require payment of taxes in gold or silver coin even though the federal government had authorized purely fiat paper currency as legal tender. See, *Lane County v. Oregon,* 74 U.S. 71 (1869). The Supreme Court reaffirmed that position a decade and a half later in *Hagar v. Reclamation District No. 108*, 11 U.S. 701 (1884). Those precedents have stood unchallenged ever since.

In 1893 Colorado adopted a statute (currently codified as C.R.S.A § 11-61-101) declaring federally issued gold and silver coin to be legal tender in the state. This occurred during the era of the bimetallism debate initially sparked by passage of the Coinage Act of 1873 and reaching its apex in William Jennings Bryan's *Cross of Gold* speech delivered at the 1896 democratic convention in Chicago. Colorado's reaffirmation of silver as a legal tender along side gold is highly supportive of the western states' interests of the day.

That statute has faced only one constitutional challenge in the century since its passage. In that case, the court upheld the law, simply stipulating that state-declared currency was to circulate in tandem with legal tender established by congress. *See, Walton v. Keim,* 694 P.2d 1287, 1289 (1984).

The Utah Supreme Court expressly recognized the states' concurrent constitutional monetary powers in *Baird v. County Assessor of Salt Lake and Utah Counties* 779 P.2d 676 (1989), specifically referencing the article 1 § 10 provision. Also, in *Thorne and Wilson, Inc. v. Utah State Tax Commission*, 681 P.2nd 1237 (1984), the Utah Supreme Court embraced the rationale developed in a line of cases, both state and federal, to the

effect that to tax and impose burdensome regulations on money is to demonetize it. This reasoning thus lays the ground work for the unfettered exchange of currencies -- gold, silver and paper.

In light of these authorities, it is clear that each state in the Union possesses the authority to declare gold and silver coin to be legal tender. One of the important consequences that logically flows from of such a declaration is to effectively exempt from taxation and burdensome regulation any particular state monetized class of coin.

A more detailed examination of these issues follows, beginning with an historical overview of the circumstances surrounding the development of the Constitution's monetary provisions.

Historical Overview of the Constitutional Monetary Provisions

Prior to the adoption of the United States Constitution each state enjoyed sovereign authority to issue its own currency. Up until the ratification of the Constitution, the colonies, and later the states, had been issuing paper currency more or less continuously for nearly a century. The only major exception to this was the restrictions on paper currency emissions imposed in the mid-18th century by the British crown. These culminated in the Currency Act of 1764 which was a significant contributing factor in the outbreak of the American Revolution.

Having witnessed first hand the ravages that fiat currencies wreaked on American society before, during and after the revolution, delegates to the Constitutional Convention strongly inclined towards restricting emissions of paper currencies in America, especially by the states. Accordingly, among the express limitations on inherent state sovereign authority cataloged in article 1 § 10 of the Constitution we find a proscription against the right to “coin money”.

Although today the verb "to coin" strongly connotes the manufacture of metal tokens, at the founding of our country it also encompassed a broader meaning. For example, the phrase "coining paper money" appeared in a pamphlet regarding the woolen trade published at the turn of the 18th century. In 1720, economist John Law suggested "coining notes of one pound". Still later Daniel Defoe wrote of how tradesman "coined bills payable from one to another." Anglo/American case law of that era contains references to "notes coined" and "coining notes". In response to the Declaration of Independence, John Schebbeare derided the colonies for "coining paper money." In 1784, debates in the Irish parliament include reference to "coining paper into money". Also, attributed to the famous american patriot, Thomas Paine, is the accusation that "[o]f all the sorts of base coin, paper-money is the basest." See, Robert G. Natelson, *Paper Money and the Original Understanding of the Coinage Clause*, (2008) Harvard Journal of Law & Public Policy.

The grant of authority to congress contained in article 1 § 8, clause 5 of the Constitution "to coin money, regulate the value thereof and of foreign coin" meshes directly with the corresponding restriction on state power. Read together, these provisions reveal an obvious intent to vest the monetary powers of the nation in congress, not only with respect to metallic coins, but any other form of currency as well.

The founder's animus towards state paper emissions is best understood in its historical context. During the period that the Articles of Confederation were in effect, from March 1, 1781 to June 21, 1788, ten of the thirteen states were actively issuing paper money. Congress, by contrast, had returned completely to specie currency, having negotiated monetary imports from France. Modern scholarship, attributing a good portion of the Revolutionary War era hyperinflation to British counterfeiting, also supports the then prevailing notion that the congressional monetary policy of the period was relatively sound, compared to that of the states. When the ratification of the Constitution was under consideration, the general sentiment was that while congress had taken necessary monetary measures required to prosecute the war with England, the states had immorally employed paper money as a mechanism of wealth redistribution.

Not all states were monetarily adrift during the post-revolution confederation period. South Carolina notes were well-backed and traded at a premium. New York currency experienced only mild depreciation. However, in North Carolina and Rhode Island inflation was severe. During this period people became concerned that state-issued paper money might give rise to all out trade wars. This became a major impetus for the Constitutional Convention.

For example, in an effort to aid resident debtors the Rhode Island legislature authorized the issuance of paper money in 1786. That money depreciated rapidly so that by 1788 debtors could retire their full obligations for as little as 10% of the original loan value. Rhode Island went on to enact laws requiring out-of-state creditors to accept Rhode Island paper while requiring out-of-state creditors to pay in anything but the local currency. Connecticut retaliated by imposing a stay on all Rhode Islander collection actions until such time as their state's discriminatory laws were repealed.

Therefore, to target state paper emissions as the chief offender, article 1 § 10 also restricts the states from emitting "bills of credit". A common, but by no means the only, form of paper instrument circulating during the founding era, bills of credit were not necessarily given legal tender status in all cases -- hence the need for a separate reference.

Delegates to the Constitutional Convention considered but ultimately rejected the idea of including an express authorization for congress to emit bills of credit. For the most part the founders reasoned that such an authority fell within the right to "coin money." Also it was felt that a paper medium of exchange should only be used when required by exigent circumstances. Highlighting such a power would be imprudent. In his convention notes, James Madison put it this way:

> [I] became satisfied that striking out the words [emit bills of credit] would not disable the [federal] Govt from the use of public notes as far as they could be safe & proper; & would only cut off the pretext for a paper currency and particularly for making the bills a tender either for public or private debts.

For the first century of our country's existence, congress faithfully adhered to the founders' "exigencies only" proviso for the use of fiat paper currency. For example, although congress resorted to fiat currencies during the Revolutionary War, the War of 1812 and the Civil War, they always returned the nation to sound coinage during peace time. Each time an unbacked fiat currency was introduced the dollar's purchasing power plummeted. Even so, when specie money was restored, the dollar rebounded in short order.

In addressing this *in extremis* expedient, a post-Civil War Supreme Court initially invoked the "national emergency" justification for such paper money emissions: "Suffice it to say that a civil war was then raging which seriously threatened the overthrow of the government and the destruction of the Constitution itself." *Legal Tender Cases*, 79 U.S. 287, 308 (1871). However, 13 years later the Supreme Court abandoned any attempt to identify justifying circumstances and simply held that congress possesses the Constitutional authority to issue fiat currency at any time. *See, Julliard v. Greenman* 110 U.S. 421 (1884).

As already noted, the combined effect of the referenced clauses of sections 8 and 10 of article 1 of the Constitution quite effectively concentrate all monetary powers in congress, with one obvious exception. Just following the prohibition of coining money or emitting bills of credit, clause 1 of section 10 goes on to provide that no state shall "make anything but gold and silver coin a tender for payment of debts." As an express exception to a prohibition, the concurrent right remaining in the states to monetize gold and silver coin can hardly be denied. Nevertheless, the question naturally arises: Why would the framers have included an express exception to the state monetary powers prohibition with respect to gold and silver coin?

The rationale underlying the state monetary prohibitions respecting paper currency but excepting specie money appears to have been at least three-fold. First, it was thought that uniformity of the currency circulating throughout the United States would foster commerce. For example, David Ramsay, a distinguished federalist, writing in favor of ratification under the pen name "Civis" noted:

> [T]he states cannot emit money; this is not intended to prevent the emission of paper money, but only state paper money. Is this not an advantage? To have thirteen paper currencies in thirteen states is embarrassing to commerce, and eminently so to travelers."

Also, in a letter dated September 26, 1787 addressed to the then governor of Connecticut, Samuel Huntington, Constitutional Convention delegates, Roger Sherman and Oliver Ellsworth observed:

> The restraint on the legislatures of the several states respecting emitting bills of credit, making any thing but money a tender in payment of debts, or impairing the obligation of contracts by ex post facto laws, was thought necessary as a security to commerce, in which the interest of foreigners, as well as of the citizens of different states, may be affected.

Second, states were considered to have abused paper currency laws to impair contractual obligations. Reflecting on this the famous jurist, Justice Story, observed:

> The next prohibition is that no state shall 'make anything but gold and silver coin a tender in payment of debts'. This clause was manifestly founded in the same general policy which procured the adoption of the preceding clause. The history, indeed, of the various laws which were passed by the states in their colonial and independent character upon this subject, is startling at once to our morals, to our patriotism, and to our sense of justice. Not only was paper-money issued, and declared to be a tender in payment of debts; but laws of another character, well known under the appellation of tender laws, appraisement laws, installment laws, and suspension laws were from time to time enacted, which prostrated all private credit and all private morals. By some of these laws the due payment of debts was suspended; debts were, in violation of the very terms of the contract, authorized to be paid by installments at different periods; property of any sort, however worthless either real or personal, might be tendered by the debtor in payment of his debts; and the creditor was compelled to take the property of the debtor, which he might seize on execution, at an appraisement wholly disproportionate to its known value. Such grievances and oppressions, and others of a like nature, were the ordinary results of legislation during the revolutionary war and the intermediate period down to the formation of the Constitution. They entailed the most enormous evils on the county; and introduced a system of fraud, chicanery, and profligacy, which destroyed all private confidence, and all industry and enterprise. *See, Commentaries on the Constitution of the United States,* volume 2, page 242, sec. 1371.

Finally, as already noted, a fairly widely held antipathy towards the use of paper currency also appears to have been a third driving force behind the adoption of these provisions. James Madison writing to Thomas Jefferson on September 6, 1787 stated emphatically that the "States will be restricted from paper money." Praising this restriction, a delegate to the Pennsylvania ratification convention, as recorded by Alexander J. Dallas, said:

> [I]t is declared that "no state shall emit bills of credit, or make any thing but gold and silver coin a tender in payment of debts." By this means, sir, some security will be offered for the discharge of honest contracts and an end put to the pernicious speculation upon paper emissions -- a medium which has undermined the morals and relaxed the industry of the people, and from which one half of the controversies in our courts of justice has arisen.

Madison, writing in Federalist 44 voiced a similar sentiment referring to "the pestilent effects of paper money, on the necessary confidence between man and man; on the necessary confidence in the public councils; on the industry and morals of the people, and on the character of Republican Government".

In light of these strongly held views supporting the denial of money making powers to the states, the reason for the gold and silver coin exception becomes readily apparent. Such coinage is inherently trustworthy and relatively immune to manipulation by the state. Nowhere in American jurisprudence, nor anywhere in the annals of history for that matter, can a single example be cited of any person complaining about being paid in precious metal coin in lieu of paper or other fiat currency.

In sum, we see that the founders, taken as a group, generally favored hard money over paper currency. The power to issue fiat currency was denied to the states in light of real and perceived past abuses and for the sake of uniformity. At the national level, while specie tender was clearly preferred, the founders left the door left ajar for emergency paper money emissions in the event of a national crisis, such as the Revolutionary War, then recently concluded.

Utah's Constitutional Authority to Declare Legal Tender.

When considering complementary state/federal roles on any matter, the issue of federal preemption is normally considered. Numerous courts have drawn the distinction between gold and silver as currencies contrasted with their use as commodities. These cases typically involve coin dealers' challenges to two types of state laws: state sales taxes imposed on coin sales, and state requirements (such as waiting periods, recordkeeping, etc.) imposed to crack down on the sale of stolen collectibles and other valuable articles. All of these cases have noted the legal distinction between coins as currency and coins as commodities, and almost all have upheld the state laws against challenges based on federal preemption of state regulation. *See, Sanders v. Freeman,* 221 F.3d 846 (6th Cir. 2000); *Peterman v. Coleman,* 764 F.2d 1416 (11th Cir. 1985); *Gallaher v. City of Huntington,* 759 F.2d 1155 (4th Cir. 1985); *Exotic Coins, Inc. v. Beacom,* 699 P.2d 930 (Co. 1985); *Thorne & Wilson, Inc. v. Utah State Tax Commission,* 681 P.2d 1237 (Utah 1984); *Scotchman's Coin Shop, Inc. v. Admin. Hearing Commission,* 654 S.W.2d 873 (Mo. 1983); *Losana Corp. v. Porterfield,* 14 Ohio St.2d 42 (1968); *Michigan Nat'l Bank v. Dept. of Treasury,* 339 N.W.2d 515 (1983); *State v. Sanders,* 1994 WL 413465 (Tenn.Crim.App.), aff'd, 923 S.W.2d 540 (Tenn. 1996).

In most of these cases, the dealers argued that the states couldn't enforce taxes or regulations with respect to gold/silver-related transactions because congress preempted the field of gold regulation through the Gold Reserve Act ("GRA") of 1934, 31 U.S.C. § 440 et seq., and its progeny. They argued that by repealing the sections of GRA that prohibited private acquisition and use of gold, and enacting various other statutory provisions regulating the coining of money, etc., congress demonstrated an intent to

prohibit state activity in this area. *See Exotic Coins, supra,* 699 P.2d at 935-37. In none of these instances were the gold coins at issue used as currency, but rather were bought and sold for their investment or collectible value. The courts all held that congress did not intend, through the GRA or otherwise, to prohibit states from exercising their traditional taxing or police powers with respect to such coins.

The only case in this line of jurisprudence we have discovered in which the court found federal preemption is *Mid-FLA Coin Exchange, Inc. v. Griffin,* 529 F.Supp. 1006 (M.D. Fla. 1981). There the court struck down, as preempted, a state statute regulating secondhand precious-metals businesses. The court found congress to be the preeminent authority in anything gold-related asserting that The court reasoned that any state activity that involved gold had the potential to interfere with federal policy in an area of vital national interest and that, "if regulated at all, . . . [gold] regulation should be prescribed by a single authority." *Id.* at 1016

The Colorado Supreme Court in *Exotic Coins, supra,* considered the *Mid-FLA Coin Exchange* reasoning at some length, and rejected it. The Colorado court concluded that because the state statute at issue regulated only gold as commodity, it did not raise the specter of interference with federal monetary policy warned against by *Mid-FLA Coin Exchange. See, Exotic Coins, supra,* at 936-37.

Even though most of these cases find no federal preemption, the language they employ in doing so is not particularly instructive for our purposes. *Exotic Coins* upheld the state regulation against the preemption argument because the federal government is not interested in gold bought and sold as a commodity – "it is the minting and issuance of coins and their effect as legal tender that have occupied the continued attention of Congress." *Id.* The Missouri Supreme Court upheld a state sales tax on coins because the transactions were based on the value of the precious metal, "not the intangible value assigned the coins by the federal government." *Scotchman's, supra,* at 874. Therefore, "[i]mposition of sales tax on the sale of these coins does not impinge upon the exclusive right of the federal government to regulate the value of money, coin money, or determine the character of legal tender." *Id.* Rejecting the argument that the Gold Reserve Act and its progeny preempted a state statute regulating secondhand precious-metals dealers, the Fourth Circuit concluded that "[t]he federal statute was concerned with monetary policy and whether gold might be used as currency or as a substitute therefor. These concerns are not affected one way or the other by the West Virginia statute." *Gallaher, supra,* at 1158.

More enlightening are the cases which have expressly considered the use of gold and silver coin as money, not as property. Following the adoption of the U.S. Constitution, the issue of a state's right to declare gold and silver coin a tender for payment first came before the United States Supreme Court in *Lane County v. Oregon,* 74 U.S. 71 (1869). In that case Lane County had tendered tax receipts to the State of Oregon in the the form of treasury notes authorized under federal legal tender laws passed in 1862. An Oregon state statute required payment of such taxes in gold or silver coin. In upholding the Oregon law, the Supreme Court held:

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> If, therefore, the condition of any State, in the judgment of its legislature, requires the collection of taxes in kind, that is to say, by the delivery to proper officers of a certain proportion of products, or in gold and silver bullion, or in gold and silver coin, it is not easy to see upon what principle the national legislature can interfere with the exercise, to that end, of this power, original in the States, and never as yet surrendered. *Id. at 77.*

Noting that "courts, of the highest order, have refused to treat liabilities for *taxes* as *debts*, within the ordinary sense of that word", the court found the state's right to require payment in specie to exist in its inherent taxing authority held as a "concurrent power" with congress. *Id at 80 and 77, emphasis added.* So while *Lane County* stands for the proposition that a state can require the payment of "taxes" in gold or silver coin, the court's reasoning actually applies with equal, if not greater, force with respect to "debts". After all, article 1 § 10 expressly acknowledges the states' authority to make "gold and silver coin a tender in payment of debts", speaking of which the Court explained:

> What then is its [debt's] true sense? The most obvious, and, as it seems to us, the most rational answer to this question is, that Congress must have had in contemplation debts originating in contract or demands carried into judgment, and only debts of this character. This is the commonest and most natural use of the word. *Id at 79.*

The Supreme Court expressly followed the holding in *Lane County* a decade and a half later in *Hagar v. Reclamation District No. 108,* 11 U.S. 701 (1884) to find that a California statute which required that assessments on real property be paid in gold and silver coin entirely enforceable notwithstanding the legal tender laws of the United States.

Significantly, the *Hagar* opinion was handed down after the *Legal Tender Cases,* 79 U.S. 457 (1870) and in the same year as *Julliard v. Greenman,* 110 U.S. 421 (1884). These cases and their progeny address the right of congress to authorize purely fiat paper money. Although the *Legal Tender* line of cases contain expansive statements regarding congress being vested with exclusive monetary powers, none of them squarely address the right of a state under article 1 § 10 of the Constitution to make "gold and silver coin a tender for payment of debts."

Thus, notwithstanding the strong positions taken by the Supreme Court in the *Legal Tender Cases* and their progeny regarding the power of congress to issue the nation's currency, the Court has never expressly challenged a state's right to make gold and silver coin a legal tender. In the *Legal Tender* line of cases expansive statements regarding all monetary powers being vested in congress are appropriately viewed as mere dicta when it comes to the section 10 gold and silver coin exception.

The Utah Supreme Court addressed the issue of a state's concurrent constitutional monetary powers in *Baird v. County Assessor of Salt Lake and Utah Counties* 779 P.2d

676 (1989) wherein, referring to article 1 § 10, clause 1 of the U.S. Constitution, the court found that "[t]he clause is not a directive to states to deal only in gold or silver coin; rather it is simply a restriction on states establishing *any legal tender other than gold or silver coins*." id at 680, *emphasis added*. Here we have a clear recognition by Utah's highest court of the state's right to make gold and silver coin a legal tender.

A Colorado statute, C.R.S.A § 11-61-101 which declares that "gold and silver coin issued by the government of the United States shall be a legal tender for payment of all debts ..." has faced only one constitutional challenge since it became valid Colorado law in 1893. Significantly, that case was decided during the 1965-1985 time period when the federal government had suspended the minting of any more gold or silver coin. In light of this, it is telling that the *Walton* court did not invalidate the statute, but simply held only that state-authorized gold and silver coin circulates along side the U.S. dollar as a non-exclusive medium of exchange. *See, Walton v. Keim*, 694 P.2d 1287, 1289 (1984).

A similar statute passed by the Missouri legislature in 1939, V.A.M.S. § 408.010, with related versions of the law extending back to 1877, provides that "[t]he silver coins of the United States are hereby declared a legal tender, at their par value, fixed by the laws of the United States, and shall be receivable in payment of all debts, public or private, hereafter contracted in the State of Missouri ..." Like the Colorado law, this statute has had only one published constitutional challenge since its passage.

In *May v. Bailey*, 693 S.W.2d 246 (Mo.App. W.D. 1985) a dentist sought a declaration that he had an absolute right under Missouri and federal law to receive medicaid payment in silver coins of the United States. Since the Missouri statute required that U.S. silver coins be valued at par, i.e., face value, and in 1985, as now, silver coins were trading well over their face value, economic incentives, as well as the philosophical leanings acknowledged in the court's opinion certainly drove the claimant's position, at least to some degree.

Although the court prefaced its holding with a reaffirmation of federal preemption principles, such observations were truly surplusage. The court found that "[t]he clear and unambiguous language employed in § 408.010, RSMo 1978, *supra*, in and of itself, rejects the exclusiveness read into it by May—'[t]he silver coins of the United States are hereby declared *a* legal tender....' (emphasis added) Facially, § 408.010, RSMo 1978, *supra*, does not purport to declare silver coins the exclusive form of legal tender in this state." Thus, the statute survived constitutional scrutiny, with the proviso that monetized coins could not be consider "the exclusive form of legal tender in state." This is entirely consistent with the notion of concurrent monetary powers vested in both the state and federal governments.

Both the *Walton* and *May* cases were handed down in an era of resurgent interest in specie money which occurred in the wake of the Gold Commission Report. The commission candidly observed that:

> In addition to the compelling economic case for the gold standard, a case buttressed by both historical and theoretical arguments, there is a compelling argument based upon the Constitution. The present monetary arrangements of the United States are unconstitutional --even anti-constitutional-- from top to bottom. *Report to the Congress of the Commission on the Role of Gold in the Domestic and International Monetary Markets*, vol. II, pg. 243 (March 1982).

Although congress resumed the production of silver coin as legal tender within six months of the report's issuance, followed by the reinstatement of gold coin legal tender in 1985, the legislative solutions created additional problems alluded to above and explored more thoroughly below. Endowing the new U.S. minted precious metal coins a face value far below their market value has spawned much of the litigation examined here.

In light of the foregoing precedents and authorities, there appears to be no credible basis for challenging a state's right and constitutional authority to declare gold and silver coin to be legal tender. The relatively few cases that suggest possible federal preemption in this area are readily distinguishable on their facts. Those cases that have examined the issue at hand have all come down on the side of the state's right to do so. The only restriction any court has articulated is that state declared legal tender can not circulate to the exclusion of federally authorized money. When it comes to gold and silver coin, both the federal and state governments enjoy concurrent monetary powers, with the exception that a state may not coin money without authorization by congress.

Taxation and Regulatory Immunity.

A second important constitutional question is whether money, including monetized gold and silver coin is by its nature immune from taxation and debilitating regulation. As a general principle, the exchange of one type of legal tender for another should never give rise to any tax liability whatsoever. The taxation of money essentially demonetizes it, altering its fundamental character from being a medium of exchange to being merely another form of property.

Illustrative of this point, in *McCullough v. Maryland*, 17 U.S. 316 (1819), the U.S. Supreme Court observing that the power to tax is the power to destroy, went on to hold that the state was precluded from imposing taxation upon the Bank of the United States which congress had authorized. After initially concluding that congress did indeed have power to create such a bank, the court laid down what it termed to be a "great principle" that "the constitution and the laws made in pursuance thereof are supreme." *Id.* at 425; *see also*, U.S. Constitution, article VI, § 2. Therefore, the court reasoned that although states possess the power of taxation concurrently with congress, that power must yield when in conflict with the supreme law of the land.

The same reasoning would dictate that the declaration of any state, pursuant to the power expressly reserved to the states in article I, § 10 of the Constitution, that a

particular class of gold and silver coin shall be legal tender within that state, should likewise be accorded the status of being the supreme law of the land. As a government of defined and limited powers, the authority of congress to tax and to regulate simply can not extend into a field expressly reserved to the states.

Admittedly, congress does possess broad monetary powers under article I, § 8. Nevertheless, the states' reserved article I, § 10 monetary authority necessarily operates as an express carve out of congressional authority. To conclude otherwise would render the article I, § 10 reserved power meaningless and void, since under the rationale adopted in *McCullough,* any power to tax or regulate left to congress would be tantamount to a power to destroy the monetary character of state declared legal tender.

This point is amply illustrated in what is, arguably, the sole historical example of congress ever taxing money -- the 1863 National Bank Act and later amendments, all of which were expressly designed to implement a national currency system by authorizing issuance of national bank notes (greenbacks) and eliminating state bank notes. The latter objective was accomplished by requiring state banks to pay a 10% tax on all notes they issued.

In *Veazie Bank v. Fenno*, 75 U.S. 533 (1869) the Supreme Court upheld as constitutional this destructive taxation program, which did in fact eliminate state-issued paper currencies, reasoning that "Congress may restrain, by suitable enactments, the circulation as money of any *notes* not issued under its own authority." *Id.* at 549, *emphasis added.* The court observed that while the state had ingeniously circumvented the article I, § 10 constitutional prohibition against states issuing bills of credit by simply chartering banks which would do the same, federal supremacy could not be so easily sidestepped. The court declared that once congress had determined to occupy the national monetary field, state regulation had to yield. Significantly, the *Veazie* holding addresses only paper money emissions, not gold and silver coin, which, as noted, falls squarely within the article 1 § 10 state authority carve out.

This entire episode provides a clear example of congress wielding the power to tax as a means of demonitizing and effectively destroying state authorized paper currencies. In light of this, conceding any power in congress to tax state monetized gold and silver coin would render the legitimate, constitutional state monetary authority, reserved under article 1 § 10, null and void.

In *Thorne and Wilson, Inc. v. Utah State Tax Commission*, 681 P.2nd 1237 (1984), the Utah Supreme Court considered the applicability of sales tax to the purchase of precious metal coinage. Following the holding in *Michigan National Bank v. Department of Treasury*, 339 N.W.2d 515 (1983), the court in *Thorne* determined that

> [W]here Krugerrands are transferred as a medium of exchange ... the coins remain intangible personal property, not subject to tax. But where ... they are transferred as an investment commodity, they become tangible personal property within the meaning of the General Sales Tax Act." *Thorne, supra* at 1239.

The *Thorne* court expanded on the *Michigan National Bank* holding applying it to both "United States and foreign coins, when they are not used as currency or a medium of exchange". *Ibid.* at 1239. The court also acknowledged the applicability of its analysis "to sales tax as well as property tax." *Id.*

Since *Thorne* was handed down, Utah law has been amended to expressly include within the definition of intangible property "all gold, silver, or platinum ingots, bars, medallions, or decorative coins, not constituting legal tender of any nation, with a gold, silver, or platinum content of not less than 80%." *See* U.C.A. § 59-12-102(33)(b)(vii). Prior to this change the only plausible argument for exempting gold and silver coin from taxation lay in § 59-12-102(33)(b)(vi) which defined "currency and coinage constituting legal tender of the United States or of a foreign nation" as intangible property.

Because U.C.A. § 59-2-1101(3)(g) expressly exempts "intangible property" from property tax, gold and silver coin enjoys today both sales and property tax exemptions in Utah. With the recent passage of the Utah Legal Tender Act, the state now offers a tax credit for capital gains which would otherwise apply under § 59-10-118(5)(c) which provides that "[c]apital gains and losses from sales of intangible personal property are allocable to this state if the taxpayer's commercial domicile is in this state" and are therefore taxable.

The same reasoning that applies to sales and property taxation should apply to capital gain/loss treatment as well. As legal tender in the State of Utah, gold and silver coin should be treated no differently than the U.S. paper dollar which receives no capital gain/loss treatment by Utah. As the U.S. Supreme Court noted long ago in *Thompson v. Butler*, 95 U.S. 694 (1877):

> A coin dollar is worth no more for the purposes of tender in payment of an ordinary debt than a note dollar. The law has not made the note a standard of value any more than coin. It is true that in the market, as an article of merchandise, one is greater than the other; but as money, that is to say, as a medium of exchange, the law knows no difference between them." *Thompson* at 696.

In addition, in *Thorne*, the Utah Supreme Court acknowledged precedent to the effect that "burdensome regulation of precious metals, which required inspections, record keeping, and holding periods, interfered with interstate commerce and federal regulation." *Thorne* at 1239. It could just as easily be said that any regulation that places a heavier burden on Utah legal tender than upon United States legal tender would tend to "demonitize" Utah money and therefore violate the article I, § 10 state constitutional monetary authority.

As noted above, the characterization of gold and silver coin as intangible personal property, while significant, does not complete the taxation analysis. Intangible property may still be subject to federal capital gain taxes. Today, federal tax law treats gold and

silver coin as collectibles, subject to a whopping 28% capital-gains tax. 26 U.S.C . § 1221 defines the term capital asset to mean "property held by the taxpayer (whether or not connected with his trade or business) ..." The 2010 Instructions for Schedule D – Capital Gains and Losses and Built-in Gains provides the following relevant instructions regarding gold and silver coin:

> Collectibles (28%) rate gain or (loss). Report any 28% gain or loss . . . . A collectibles gain or loss is any long-term gain or deductible long-term loss from the sale or exchange of a collectible that is a capital asset. Collectibles include works of art, rugs, antiques, metals (such as *gold, silver*, and platinum bullion), gems, stamps, coins, alcoholic beverages, and certain other tangible property. . . . *Emphasis added.*

Notwithstanding this IRS position, federal law does actually appear to recognize the difference between gold/silver coin used as currency and gold/silver coin acquired as an investment. The Uniform Commercial Code, for example, excludes "money" from its definition of "goods." U.C.C. § 9-102(a)(44). Courts have recognized this distinction in other contexts. *See, In re Midas Coins Co.*, 264 F.Supp. 193 (D. Mo. 1967), aff'd sub nom. *Zuke v. St. Johns Community Bank*, 387 F.2d 118 (8th Cir. 1968) (considering treatment of coin inventory in bankruptcy case); *Exotic Coins, Inc. v. Beacom*, 699 P.2d 930 (Co. 1985) (upholding validity of state statute regulating transactions involving collectible coins). *See also U. S. v. Barnard*, 72 F. Supp. 531 (W.D. Tenn. 1947) (gold coin that was never in circulation but was stolen from U. S. Mint was not "currency" but rather chattel that government could retrieve from coin dealer who bought it).

Also, before applying a foreign exchange gain tax, U.S. tax courts have felt compelled to find "that foreign currency in the hands of a U.S. taxpayer is considered property." *See e.g., Philip Morris Incorporated v. Commissioner of Internal Revenue*, 104 T.C. 61 (1995). Even so, while 26 U.S.C.A. § 988 provides for the capital gains taxation to apply to the exchange of foreign currencies for U.S. dollars, that section makes an express exception for gains realized by an individual disposing of any such currency so long as the gain does not exceed $200. This exception appears to be a tacit recognition that in order for a circulating currency to function as such no capital gain taxation can apply. Section 988 appears to be really designed to apply to foreign currencies held as investments.

This same issue arises with respect to domestic exchanges of gold and silver coin issued by the federal government for Federal Reserve Notes and base coinage, all of which are U.S. legal tender pursuant to 31 U.S.C. § 5103. Subsection (h) of § 5112 of title 31 expressly makes gold and silver coin legal tender, yet under subsection (f)(1) of the same section the Secretary is directed to "sell" such coins at market value, rather than face value.

Unfortunately, confusion and inconsistency currently characterize the federal treatment of gold and silver coin. For example, 12 U.S.C. § 411 requires federal reserve notes to be "redeemable in lawful money", which historically meant that such notes were

redeemable in gold and silver coin. Such treatment is consistent with the Supreme Court's seminal holding in *United States v. Marigold*, 50 U.S. (9 How.) 560, 567-568 (1850):

> They [Congress] appertain rather to the execution of an important trust invested by the Constitution, and to the obligation to fulfill that trust on the part of the government, namely, the trust and the duty of creating and maintaining a *uniform and pure metallic standard of value* throughout the Union. The power of coining money and of regulating its value was delegated to Congress by the Constitution for the very purpose, as assigned by the framers of that instrument, of creating and preserving the uniformity and purity of such standard of value
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> * * *
>
> If the medium which the government was authorized to create and establish could immediately be expelled, and substituted by one it had neither created, estimated, nor authorized one possessing no intrinsic value then the power conferred by the Constitution would be useless wholly fruitless of every end it was designed to accomplish. *Whatever functions Congress are, by the Constitution, authorized to perform, they are, when the public good requires it, bound to perform*; and on this principle, having emitted a circulating medium, a standard of value indispensable for the purposes of the community, and for the action of the government itself, *they are accordingly authorized and bound in duty to prevent its debasement and expulsion,* and the destruction of the general confidence and convenience .... *Emphasis added.*

Arguably, tax on transactions using U.S. minted gold and silver coins should be calculated based upon the dollar-denominated face amount of each coin. *Thompson v. Butler, supra*, certainly advocates this approach; nevertheless, every case that has addressed this issue in recent years, without exception, has insisted that taxes be paid on the basis of fair market value, not the legal tender face value of a gold or silver coin. Even older opinions took this approach. For example, The U.S. Supreme Court held in *Pacific Insurance Company v. Soule,* 74 U.S. 433 (1868) that tax on the revenues received in the the "coined money" currency of California was not to be calculated on the dollar denominations of such coinage, but rather on their fair market value. The *Soule* case did involve the application of a specific provision of the Civil War income tax statute, aimed at re-valuation of "income" received in gold or silver coin (as opposed to legal-tender notes). In the absence of such a statute (which is the case today), logically the rule articulated in *Thompson v. Butler, supra,* should apply, even in tax cases.

The more recent 10th Circuit Federal case handed down in Utah, *Joslin v. United States*, 666 F.2d 1306 (10th Cir. 1981), affg. 1981 WL 1861, articulates an intriguing rationale for such tax treatment in the court's initial slip opinion:

> When the taxpayer himself places a value on coins in excess of intrinsic value and commensurate with market value, he cannot use the value guaranteed by the United States as the true value of what he received. The test is not the status

of what was received as income as legal tender or not legal tender. The test is what was received as income and what was the true value thereof, even though the true value may exceed the legally guaranteed value.

Thus, the *Joslin* court attempts to clarify that the face value of legal tender coin, being the minimum legally guaranteed value, is irrelevant for purposes of calculating tax liabilities when a coin is exchanged for its extrinsic market value. In other words, the placing of a set value on a coin and the tax treatment of that coin are totally separate issues. By stipulating that taxation of gold or silver coin transactions is to be calculated on a uniform basis with federal reserve notes, Utah would not be "regulating" the value of the coin. The free market does that quite effectively.

It would simply be mandating the same tax treatment that the IRS has uniformly adopted. See also, Rev.Rul. 78-360, 1978-2 C.B. 228 (silver coins held by decedent valued for estate tax purposes at their fair market value); *California Federal Life Insurance Co. v. Commissioner of Internal Revenue*, 680 F.2d 85 (9th Cir. 1982), affg. 76 T.C. 107 (1981) (U.S. gold coins accepted as payment for Swiss francs are evaluated for tax purposes at their numismatic value); *Cordner v. United States*, 671 F. 2d 367 (9th Cir. 1982) (gold coin dividend taxed at numismatic value); *Lary v. Commissioner of Internal Revenue*, 842 F.2d 296 (11th Cir. 1988) (where coins have a fair market value in excess of their face value, their legal tender value is irrelevant for tax purposes); *Smith v. Commissioner of Internal Revenue*, T.C. Memo. 1998-148 (taxpayer who sold timber for gold coins must pay taxes based on coin's fair market, not legal tender value); *United States v. Kahre*, 2007 WL 1521064 (taxpayer who paid contractors in gold eagles must file tax returns based on coins' fair market value, not legal tender face value). None of these cases, including *Joslin,* reference or in any way acknowledge *Thompson v. Butler, supra,* which may well draw into question their validity.

The principles gleaned from the foregoing analysis teach that the power to tax is truly the power to destroy. We have in *Veazie* a clear example of congress actually destroying state-issued paper money in just that manner. To allow the same treatment of state-monetized coin would be tantamount to conceding that the article 1, § 10 reserved state monetary power is utterly meaningless. Nevertheless, in that congress also enjoys authority over specie legal tender, the only logical conclusion is that federal and state governments have concurrent powers in this area. Neither sovereign entity can be permitted to exercise their concurrent powers to the destruction of the others'.

Extent of Utah's Monetary Authority.

Considering Utah's article 1, § 10 monetary powers, a question arises as to whether the state can declare any gold or silver coin to be intrastate money, including that originating from private mints. With regard to this question, it is noteworthy that throughout the course of U.S. history, not only foreign coin (primarily the Spanish milled dollar), but privately minted coin has circulated as current coin of the United States. It is

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estimated that more than twenty private gold and silver mints operated in the western United States during the gold and silver rushes of the 19th century. See. Lawrence H. White, *The Theory of Monetary Policy* (1999) Blackwell Publishers, Inc., p. 11.

Today many more mints exist across the nation. There are at least two private mints in Utah alone. However, neither of these produce coin for use as "current money" for one very important reason. 18 U.S.C. § 486 provides:

> Whoever, except as authorized by law, makes or utters or passes, or attempts to utter or pass, any coins of gold or silver or other metal, or alloys of metals, intended for use as current money, whether in the resemblance of coins of the United States or of foreign countries, or of original design, shall be fined under this title or imprisoned not more than five years, or both.

Considering the threat of criminal prosecution, private mints today are careful to clarify that they produce only tokens or medallions, not coin. Given our country's history, there should be no challenge to a state declaring United States minted and even foreign sovereign coin as legal tender in the state. However, in light of the foregoing criminal statute "coin" of private origin requires a bit more reflection.

We begin by examining what it means to make something a legal "tender". In 1780, Pelatiah Webster observed:

> The nature of a Tender-Act is no more or less than establishing by law the standard value of money, and has the same use with respect to currency, that the legal standard pound, bushel, yard, or gallon has to the goods, the quantities of which are usually ascertained by those weights and measures.

Referencing this and other authorities Professor Natelson links the phrases "regulate the value" in section 8 to the monetary term of art "tender" which is used in section 10 of article 1 to describe a state's monetary authority. He observes:

> Not only is this understanding clear, but it makes sense as a textual matter, for only by deciding issues of legal tender could Congress fully "regulate the Value" of money. *See Natelson* at p. 12.

So it appears that pursuant to section 10 a state would have full authority not only to declare any gold or silver coin a legal tender within the state, but to set its value as well. However, assuming that a state were to set the coins' value using the troy ounce, pennyweight and/or grain as the operative monetary units, an identity between both the monetary denomination and the precious metal content by weight would be created. In this respect intrastate money would function very much like the Krugerrand which courts have recognized as a "special breed" of currency, being denominated in troy ounces. *See Thorne* at 1239.

Even if Utah were not possessed of an inherent constitutional right to authorize privately minted coin as money, another avenue to the same end appears in the Internal Revenue Code, interestingly enough. 26 U.S.C. 408(m)(3)(A)(iv) provides that among the types of coin authorized to be held in an Individual Retirement Account ("IRA") is "coin issued under the laws of any State". It is firmly established by now that congress can delegate its monetary authority. As a case in point, the Federal Reserve, a private bank, has been producing United States legal tender for just about a century. The foregoing statute appears to be a formal, federal recognition of a delegated coinage power.

Aside from legal considerations, there are several practical advantages to having an authorized intrastate coinage. First, a multiplicity of circulating pieces would make intrastate commerce using physical coin unduly awkward and burdensome. In addition, recognizable Utah coinage significantly reduces the risk of money laundering as such coins would be easily traceable to their origin and their precious metal melt value normally runs at least 15% below a coin's market value. So removing them from the state becomes unappealing.

Conclusions.

As clearly demonstrated above, states do indeed hold concurrently with congress the right to monetize gold and silver coin as legal tender within the state. At least two states, Colorado and Missouri, began exercising that constitutional authority well over a century ago without any significant legal challenge beyond the holding that state-declared money can not oust federally authorized legal tender. Neither class of coin should be accorded preeminence over the other, both being constitutionally authorized.

McCullough v. Maryland, supra, teaches that the power to tax is the power to destroy. So, it follows, that to admit that the federal government may tax state legal tender does violence the notion of constitutionally concurrent monetary powers. Such an admission would elevate federal monetary authority to the total exclusion of any such authority reserved under the Constitution to the states.

There is ample historic precedent for the use of gold and silver coin of both foreign and private origin as legal tender of the United States. Further, the constitution contains no express restriction upon the types of gold and silver coin subject to monetization by the states. Accordingly, states have the right to declare not only U.S. minted coin to be legal tender within the state, but any other coinage the legislature may find to be trustworthy. Further, a state also has the right to set the value of such money as part of its powers to make gold and silver coin a legal "tender". Nevertheless, so long as each coin denomination is established relative to its precious metal content, e.g. ounces, pennyweights or grains, the value really becomes self-regulating.

The beneficial effects of declaring gold and silver coin to be money within the state are many. They include: (1) tax and regulatory immunity for currency exchanges; (2) relief

from the current money monopoly by introducing competition into the monetary system; and (3) the availability of a backup currency in the event of a dollar crisis. Monetizing the gold and silver coin currently held in the state for investment purposes will also increase the monetary base, creating a localized economic stimulus without inflation. Finally, as a safe haven for gold and silver holdings, states adopting such a monetary plan would stand to attract significant capital into the state.

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Is Our Monetary Structure a Systemic Cause for Financial Instability?

Evidence and Remedies from Nature

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Abstract

Fundamental laws govern all complex flow systems, including natural ecosystems, economic and financial systems. Natural ecosystems are practical exemplars of sustainability: enduring, vital, adaptive. The sustainability of any complex flow system can be measured with a single metric as an emergent property of its structural diversity and interconnectivity; it requires a balance in emphasis between efficiency and resilience. The urgent message for economics from nature is that the monoculture of national currencies, justified on the basis of market efficiency, generates structural instability in our global financial system. Economic sustainability therefore requires diversification in types of currencies, specifically through complementary currencies.

Key Words

Sustainability, Efficiency, Resilience, Biodiversity, Ecosystems, Complexity Theory, Financial Instability, Economic Sustainability, Complementary Currencies.

Why is the financial crisis of 2008 treated as if it were the first? The World Bank has identified more than 96 previous banking crises and 176 monetary crises since President Nixon introduced the floating exchange regime in the early 1970s (Caprio and Klingebiel, 1996). Even before this period, financial booms and bust cycles were, in Kindleberger's words, a remarkably "hardy perennial" (Kindleberger, 1978); he inventories no less than 48 massive crashes between the 1637 tulip mania in Holland and the 1929 crash on Wall Street. In short, it may be tempting to consider financial and monetary instability as a given, as part of Schumpeter's "creative destruction" of capitalism. But Schumpeter was referring mainly to the rise and fall of business units, not the monetary system. Could it be that a bug in the monetary system keeps crashing the operating system of capitalism, and that this has generated financial instability during the entire Modern capitalist era?

Our view is that such repeated breakdowns, in very different countries and times, under different regulatory environments, and in economies with very different degrees of development, signal some underlying structural problem. If such a deeper mechanism is involved, it could explain why each new set of regulations achieves, at best, only a reduction in the frequency of banking and monetary crises, without getting rid of them and their horrific economic and socio-political consequences.

Here is a metaphor. You are given a car without brakes and with an unreliable steering wheel. And you are sent across the Alps or the Rockies. When you crash, you are told that you are a bad driver; or that your road maps are out of date. And everybody is endeavouring to get that same car back on the road, with as little change as possible...predictably until the next crash. Indeed, such a car is not fit for driving; it has structural problems which, if not fixed, will predictably cause other crashes. Extending the metaphor, and assuming that only structural solutions can genuinely address structural problems, a helpful starting point would be to identify the nature of the structural problem that is plaguing our financial and monetary system.

Sustainability of Complex Flow Systems

We now have scientific evidence that a structural fault is indeed involved in generating financial crashes. The theoretical breakthrough is the capacity to measure with a single metric the sustainability of complex flow systems, which include natural ecosystems and economic or financial systems. Understanding and empirical substantiation of this mechanism has arisen from quantitative ecological research. For those desiring full technical and mathematical proof of what will be claimed here, please refer to the relevant paper (Ulanowicz, Goerner, Lietaer and Gomez, 2009). The most relevant points are summarized hereafter.

A recent and surprising insight from systems ecology is that sustainability is as much about "what is not" as "what is". How can this be?

Conventional science investigates what is apparent – the things that are present in our world; it ignores or understates the absence of things. This seems hardly surprising and, on the face of it, of no consequence. Even if absence can make the heart grow fonder, this surely has nothing to do with the real world. Or does it?

Information is any "difference that makes the difference" (Gregory Bateson) and, as the binary logic of the digital age has popularized, such difference almost always involves the absence of something. In coming to terms with the working of whole systems, information theory (IT) is a means for apprehending and quantifying what is missing. The key point is that if one is to address the issue of sustainability, then the inchoate, undetermined "potentiality" of a system also becomes an indispensable focus of inquiry, because it is the source of the resilience that allows the system to persist (Conrad, 1983).

What IT tells us is that a system's capacity to undergo change (H) has two components: order and the absence of order ($H = X + \psi$). The first component, called "mutual constraint" (X, an analogue of Newton's Third Law of motion), quantifies all that is regular, orderly, coherent and efficient. It encompasses basically all the concerns of conventional science. By contrast, the second component (ψ) represents the lack of those same attributes, or the irregular, disorderly, incoherent and inefficient potential behaviours that have escaped the scrutiny of science mainly because they cannot easily be described, and even less readily repeated or measured, or all of the above.

In the jargon of IT, this second, overlooked component of system change ψ is called "conditional entropy"; it can also be thought of as uncommitted potential. Critically what this says is that the very absence of order (even if its potential is never activated, and therefore unnoticed and unmeasured) plays the key role for a system to persist over the long run, to adapt to changing environment, or survive unexpected challenges. We know this intuitively and also from our experience of day to day living, exemplified in the familiar expressions "laid-back", "I can cope with that" and "slack in the system"; but we rarely recognize it in our collective affairs, much less acknowledge its importance for sustainability. We will next show why this happens to be even more significant than the first variable, order, if we are to understand sustainability.

Separately, order (mutual constraint) and disorder (conditional entropy) tell us nothing about the vitality of a system. Is it healthily working, furiously spreading a cancer, moribund or even dead?

When scaled by the activity of the system – quantified as its total system throughput (TST) – the property of mutual constraint converts into the measure of a system's "throughput efficiency" [1] (A), so-called because it measures the capacity of a system to process volumes of whatever that particular system deals with (e.g. biomass in an ecosystem, electrons in an electrical distribution system, or money in an economy). On the other hand, scaled conditional entropy becomes a measure of a system's resilience (Φ), because it captures the capacity of a system to change and adapt. Thus the total

[1] We will abbreviate this variable simply as efficiency. The original ecological literature refers to this variable as "ascendency".

capacity for system development (C) can be expressed as both order and disorder, or $C = A + \Phi$ (Ulanowicz, Bondavalli and Egnotovich, 1996).

A living system adapts in homeostatic fashion to buffer performance by expending what Odum called "reserves" (Odum, 1953). The reserve in this case is not some palpable storage, like a cache of some material resource. Rather, this second variable Φ is a characteristic of the system structure that reflects its capacity both to survive change and adapt to new circumstances – and it usually requires some loss of efficient performance (Ulanowicz, 2010). Systems that endure – that is, are sustainable – lie in dynamic balance somewhere between these two poles of order and disorder, efficient performance and adaptive resilience.

We now have the basic elements for a more complete description of complex living systems. That it possesses throughput efficiency, A, means that the system is capable of exercising sufficient directed power to maintain its integrity and growth over time. Autocatalysis plays a key role among those processes: autocatalysis is a type of self-perpetuating (positive) feedback process capable of exerting a centripetal pull upon materials and energy, drawing more and more resources into its orbit.

So crucially, as we have seen, throughput efficiency is definitely not sufficient for sustainability. Also necessary is that it possesses a resilience, Φ, of undefined and contingent responsiveness to the unpredictable challenges thrown up by its own workings and its environment. It is thanks to this Φ that a resilient ecosystem can withstand shocks and adapt itself when necessary.

This dialectic between efficiency and resilience is the "go and get" and the "let go and give" of life. In the Chinese philosophical tradition, they are called respectively the *yang* and the *yin*, characteristics which they assigned to all natural systems. The poet John Keats coined the term "negative capability" for the often overlooked *yin* trait of human personality and experience: the capacity to hold uncertainty without angst – the capacity to live with the unknown as an ally rather than something to be eliminated. Such "undecideness" is not hesitant fence-sitting, indifference or laziness; nor is it a skill in the usual sense of the word, although it can be cultivated. It is more like a connection to an undifferentiated ground that resists form, which continually invokes questions and reflection and is potentially multi-dimensional, a space of "both-and" and *neti-neti*, the Hindu concept literally meaning "neither this, nor that".

In summary, natural ecosystems exist because they have *both* sufficient self-directed identity *and* flexibility to change. This is what the Chinese refer to as *yin-yang,* two ideograms joined as a single concept, where the polarities necessitate each other in an appropriate balance in harmonious complementarity. Over time nature must have solved many of the structural problems in ecosystems (otherwise, these ecosystems simply wouldn't still exist today). They are our best living examples of large scale sustainability in action.

Moving beyond information theory, ecologists have measured the transfer of biomass and energy ("trophic exchanges") within ecosystems. For example, using a web-like network approach, they have estimated the magnitude of carbon transfers within a freshwater cypress wetland community leading from prawns to the American alligator via three intermediate predators: turtles, large fish, and snakes (Ulanowicz *et al.*, 1996); or estimated the trophic (nutritional) transfers of energy in the Cone Spring community, a small freshwater ecosystem comprising primary producers (algae and higher plants), detritus, bacteria, detritivores (annelids and molluscs) and carnivores (insects) (Tilly, 1968).

Ecologists have also found ways to derive values for an ecosystem's throughput efficiency and resilience by estimating network size and network connectedness in terms of two variables: (1) node to node pathway steps (n, which gauges the effective number of trophic levels in the system and is directly related to throughput efficiency and (2) links per node (c, which measures the effective connectivity of the system in terms of links per node which is directly related to resilience).[2] It turns out that there is a specific zone of optimal robustness, into which all observed natural ecosystems fall. This zone has been named the "window of viability" (also in ecological literature the "window of vitality").[3]

The key conclusion is that nature does not select for maximum efficiency, but for a balance between the two opposing poles of efficiency and resilience. Because both are indispensable for long-term sustainability and health, the healthiest flow systems are those that are closest to an optimal balance between these two opposing pulls. Conversely, an excess of either attribute leads to systemic instability. Too much efficiency leads to brittleness and too much resilience leads to stagnation: the former is caused by too little diversity and connectivity and the latter by too much diversity and connectivity.

Sustainability of a complex flow system can therefore be defined as the optimal balance between efficiency and resilience of its network. With these distinctions we are able to define and precisely quantify a complex system's sustainability in a single metric. The generic shape of the relationships between sustainability and its constituent elements is shown in Figure 1. Observe that there is an asymmetry: optimality requires more resilience than efficiency! (The optimal point lies closer to resilience than efficiency on the horizontal axis).

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[2] Mathematically $n = 2^{A}$ and $c = 2^{\Phi/2}$

[3] The zone of viability is defined on one axis by a measure of path length of between 2 and 5 nodes (with optimum performance at around 3) and on the other by a node/link density of between 1 and 3. The geometric center of the window (n = 3.25 and c = 1.25) suggests the best possible configuration for sustainability under the information currently available. In essence, this says that systems can be either strongly connected across a few links or weakly connected across many links, but configurations of strong connections across many links and weak connections across a few links tend to break up or fall apart, respectively (Zorach and Ulanowicz 2003).

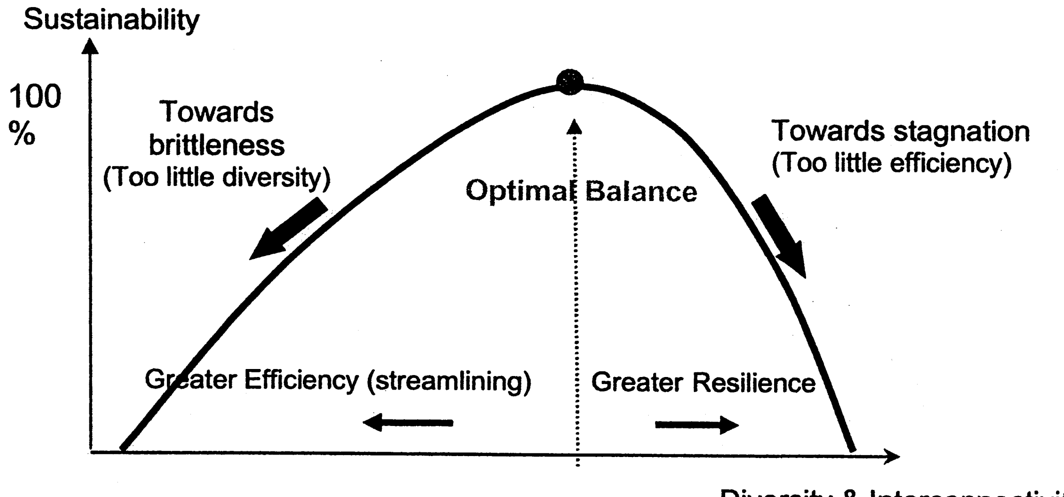

Figure 1: Sustainability curve mapped between the two polarities of efficiency and resilience. Nature selects not for a maximum of efficiency, but for an optimal balance between these two requirements. Notice that resilience is roughly two times more important than efficiency at the optimum.

Until recently, total throughput and efficiency have been the only means for us to identify the relative success of a system, whether in nature or in economics. For example, in ecosystems, as in economies, size is generally measured as the total volume of system throughput/activity. Gross Domestic Product (GDP) measures size this way in economies and Total System Throughput (TST) does so in ecosystems. Many economists urge endless growth in size (GDP) because they assume that growth in size is a sufficient measure of health. GDP and TST, however, are both poor measures of sustainable viability because *they ignore network structure*. They cannot, for example, distinguish between a resilient economy and a bubble that is doomed to burst; or between healthy "development," as Herman Daly (1997) describes it, or explosive growth in monetary exchanges simply due to runaway speculation.

Now, however, we can distinguish whether a particular increase in throughput and efficiency is a sign of healthy growth or just a relatively short-term bubble that is doomed to collapse.

As explained above, it is also interesting that ecosystems have their most critical parameters within a very specific and narrow range, which can be computed empirically with precision and which we call the "Window of Viability" (See Figure 2).

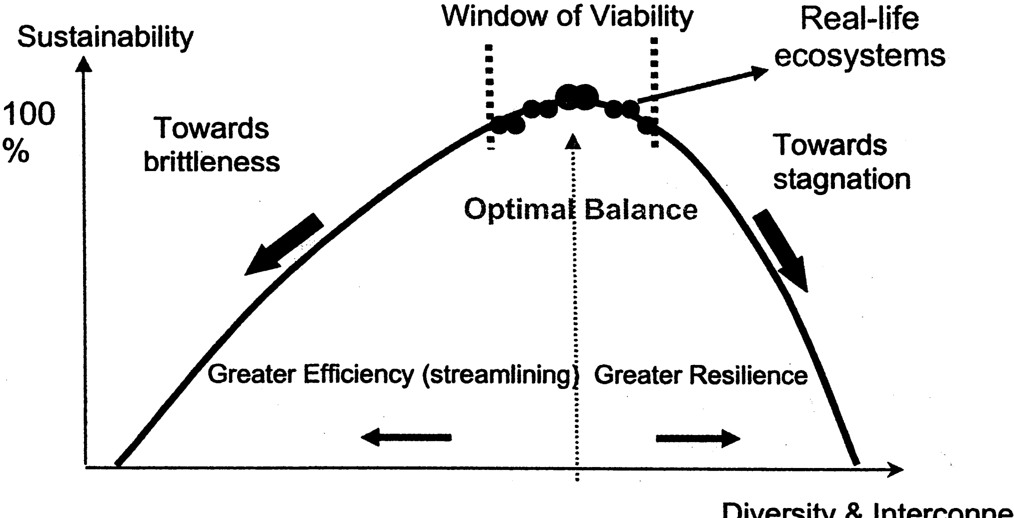

Figure 2: The "Window of Viability" in which all sustainable natural ecosystems operate. Complex natural ecosystems invariably operate within a fairly narrow range on each side of the Optimum point.

Application to Other Complex Systems

The question will undoubtedly be raised whether what we learn from ecosystems still makes sense when applied to other systems, such as economic or financial systems.

It is critical to understand that the findings described in natural ecosystems arise from the very *structure of a complex flow system*, and therefore that they remain valid for any complex flow network with a similar structure, regardless of what is being processed in the system: it can be biomass in an ecosystem, information in a biological system, electrons in an electrical power network, or money in an economic system. This is precisely one of the strong points of using a web-like network approach instead of machine-like metaphor.

The fields of engineering, business and economics have all been focusing almost exclusively on efficiency, and therefore constitute a wide-open field to explore the validity of the proposed metrics to improve sustainability. For example, electrical power grids have been systematically optimized for decades towards ever greater technical and economic efficiency. It has come as a surprise to many engineers that, as they have approached higher efficiencies, suddenly large-scale blackouts have been breaking out with a vengeance "out of nowhere". For instance, a few decades ago several blackouts hit large areas of the United States and Northern Germany. The data should be available to model these systems as flow networks, because that is what they literally are. One could then quantify their efficiency and resilience, and their Window of Viability. The solution on how to rebalance such a system to make it less brittle, and to determine its optimal sustainability, would be an obvious "hard science" test application of the concepts and metrics described here.

The point being made here is truly profound and has wide-reaching implications for all complex systems, natural or human-made. Placing too much emphasis on efficiency tends to automatically maximize flows, size and consolidation at the expense of choice, connectivity and resilience until the entire system becomes unstable and collapses.

Application to Financial and Monetary Systems

Applying the above complex flow framework to financial and monetary systems, we can predict that excessive focus on efficiency would tend to create exactly the kind of bubble economy which we have been able to observe repeatedly in every boom and bust cycle in history, including the biggest bust of them all, the one that we are experiencing today.

Viewing economies as flow systems ties directly into money's primary function as medium of exchange. In this view, money is to the real economy like biomass in an ecosystem: it is an essential vehicle for catalyzing processes, allocating resources, and generally allowing the exchange system to work as a synergetic whole. The connection to structure is immediately apparent. In economies, as in ecosystems and living organisms, the health of the whole depends heavily on the structure by which the catalyzing medium, in this case, money, circulates among businesses and individuals. Money must continue to circulate in sufficiency to all corners of the whole because poor circulation will strangle either the supply side or the demand side of the economy, or both.

Our global monetary system is itself an obvious flow network structure, in which monopolistic national currencies flow within each country (or group of countries in the case of the Euro), and interconnect on a global level. The technical justification for enforcing a monopoly of a single currency within each country is to optimize the efficiency of price formation and exchanges in national markets. Tight regulations are in place in every country to maintain these monopolies. Banking institutional regulations further ensure that banks tend to be carbon copies of each other both in terms of their structure and behaviour. This was demonstrated among the world's bigger banks, most recently and with a vengeance, with the simultaneous crisis in 2008.

Furthermore, in a seminal 1953 paper, Milton Friedman proposed that letting markets determine the value of each national currency would further improve the overall efficiency of the global monetary system (Friedman, 1953). This idea was actually implemented by President Nixon in 1971, to avoid a run on the dollar at that time. Since then, an extraordinarily efficient and sophisticated global communications infrastructure has been built to link and trade these national currencies. The trading volume in the foreign exchange markets reached an impressive $3.2 trillion *per day* in 2007, to which another daily $2.1 trillion of currency derivatives should be added (Bank of International Settlements, 2008). Over 95% of that trading volume is speculative, and less than 5% is in fact used for actual international trade of goods and services.

Speculation can play a positive role in any market: theory and practice show that it can improve market efficiency by increasing liquidity and depth[4] in the market. But current speculative levels are clearly out of balance. Although over half a century old, John Maynard Keynes' opinion has never been as appropriate as it is today. "Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done." (Keynes, 1936, p.159)

Nobody questions the efficiency of these huge markets; but their lack of resilience has also been amply demonstrated, for instance during the Asian crisis of the late 1990s, and dozens of other monetary crashes. In short, our global network of monopolistic national moneys has evolved into an overly efficient and dangerously brittle system. This system's lack of resilience shows up not in the technical field of the computer networks (which all have backups), but in the financial realm, as has been spectacularly demonstrated by the large number of monetary and banking crashes over the past thirty years. Such a crisis, particularly a combined monetary and banking crash, is - other than war - the worst thing that can happen to a country.

Even more ironically, whenever a banking crisis unfolds, governments invariably help the larger banks to absorb the smaller ones, under the logic that the efficiency of the system is thereby further increased. When a failing bank has proven to be "too big to fail", why not consider the option to break it up into smaller units that can be made to compete with each other? This was done in the US, for instance, with the break up of the Bell telephone monopoly into competing "Baby Bells". Instead, what tends to be done is to make banks that are "too big to fail" into still bigger ones, until they become "too big to bail". This whole process is illustrated in Figure 3.[5]

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[4] "Liquidity" and "Depth" of a financial market refers to the possibility of moving large volumes of money without significantly affecting prices. In a deep market, a lot of people are buying and selling. By contrast, in a thin market, because fewer people are trading, even one single large transaction could significantly affect prices.

[5] We have not yet been able to formally quantify the window of viability of the global monetary system, although such an exercise would be achievable if the data about global flows by currency and institution are available. However, we are clearly dealing with a monoculture of bank-debt money worldwide. A monoculture is by definition lacking the diversity of any natural ecosystem, and pushes us away from the resilience pole. The institutional pressure on efficiency further pushes in the same direction.

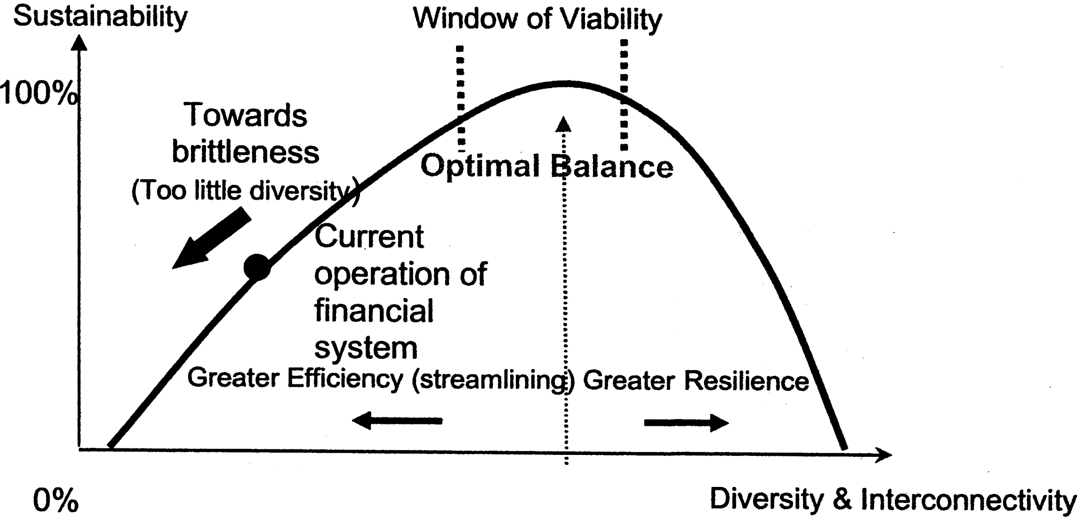

Figure 3: Today's global monetary ecosystem is significantly overshooting the optimal balance - the Window of Viability - because of its exclusive emphasis on efficiency. It is careening toward brittleness and collapse because a general belief prevails that all improvements need to go further in that the same direction (thick downward arrow) of increasing growth and efficiency. For instance, the global monoculture of bank-debt money as legal tender is technically justified on the basis of efficiency of price formation and exchanges within each country. Internationally, floating exchanges were also justified because they are "more efficient".

Similarly, the substance that circulates in our global economic network – money – is also maintained as a monopoly of a single type of currency – bank-debt money, created with interest. Imagine a planetary ecosystem where only one single type of plant or animal is tolerated and artificially maintained, and where any manifestation of diversity is eradicated as an inappropriate "competitor" because it would reduce the efficiency of the whole.

An overly efficient system as the one described in Figure 3 is "an accident waiting to happen", condemned to crash and collapse however many competent people dedicate time and heroic efforts to try to manage it. Graphically, this is illustrated in the next illustration (Figure 4).

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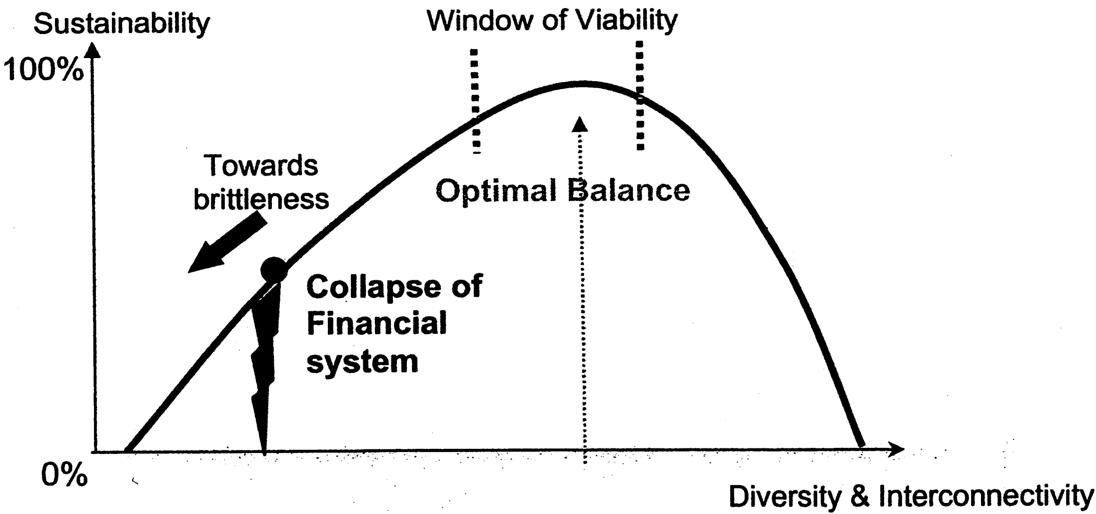

Figure 4: The dynamics of an artificially enforced monoculture of currencies and banks in a complex system where efficiency is the only criterion considered relevant. The only possible outcome is systemic financial collapse.

As stated earlier, nature has over billions of years selected the conditions under which complex ecosystems are sustainable, otherwise they wouldn't exist today. In contrast, humanity still struggles with the issue of how to create sustainable economies. We know that the theoretical framework applies to both natural and man-made complex systems. Has the time not come to learn in this domain from nature?

A Structural Monetary Solution

A full inventory of the options on how to deal with a systemic banking crisis has been explained in another paper (Lietaer, Ulanowicz and Goerner, 2009). Here we will focus only on the solution which aims at increasing structurally the resilience of the monetary system, even if at first sight that may be less efficient.

Conventional economic thinking assumes the *de facto* monopolies of national moneys as an unquestionable given. The logical lesson from nature is that systemic monetary sustainability requires a diversity of currency systems, so that multiple and more diverse agents and channels of monetary links and exchanges can emerge, as seen in Figure 5.

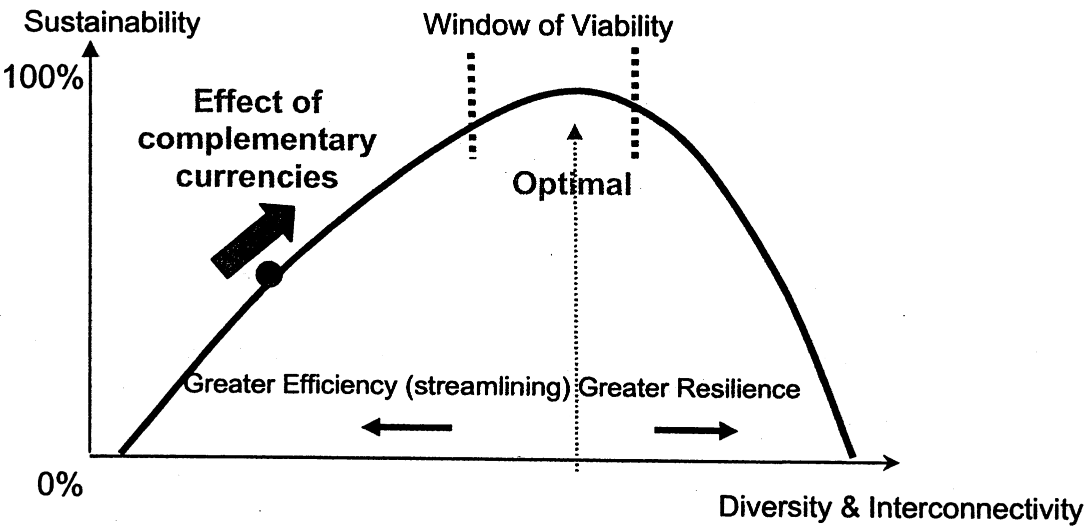

Figure 5: The Effect of Diverse Complementary Currencies

The operation of complementary currencies of diverse types enables the economy to flow back towards greater sustainability (thick upward arrow). While this process clearly reduces efficiency, that is the price to pay for increased resilience of the whole. Complementary currencies facilitate transactions that otherwise wouldn't occur, linking otherwise unused resources to unmet needs, and encouraging diversity and interconnections that otherwise wouldn't exist.

This is the practical lesson from nature: allow several *types* of currencies to circulate among people and businesses to facilitate their exchanges, through the implementation of complementary currencies. Let us start by defining a currency as whatever a community is accepting as medium of exchange. A complementary currency is therefore any standardized instrument, other than national money, that is actually used in exchanges. These different types of currencies are called "complementary" because they are designed to operate in parallel with, as complements to, conventional national moneys.

What is most surprising and interesting is that, below the radar beams of officialdom and most academics, there has been a spontaneous emergence over the past decades of precisely the kind of instruments that would be relevant to correct the problem of currency monopoly.

Notice that if the problem is the monopoly of one type of currency; replacing one monopoly with another isn't the solution. Monetary reforms which aim at substituting one monopoly by another would therefore be insufficient.

The very idea of allowing different types of currencies co-exist will certainly appear shockingly unorthodox to conventional monetary thinking, but in fact there are already hundreds of thousands. By far the most common are commercial complementary currencies, such as Airline Miles, or the many thousands of other loyalty currencies issued by companies, chains and individual shops at different scales around the world. They have demonstrated that people are willing to change behaviour (e.g. return to the

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same vendor) in order to obtain and use them. If that weren't true, businesses wouldn't continue to issue them.

However, the more interesting behaviour changes can be found in the so-called social purpose complementary currencies. They are much less common than the commercial loyalty systems, but they have grown in number to total several thousand in a dozen countries.

Just in the social domain, a wide variety of complementary currencies have become operational, as shown in the following graph. Such systems have been described extensively (Lietaer 2001; Greco, 2003; Kent, 2005) and the *Journal of Community Currency Research* a specialized peer-reviewed journal has emerged to track academic research in this burgeoning field (see www.uea.ac.uk/env/ijccr/)

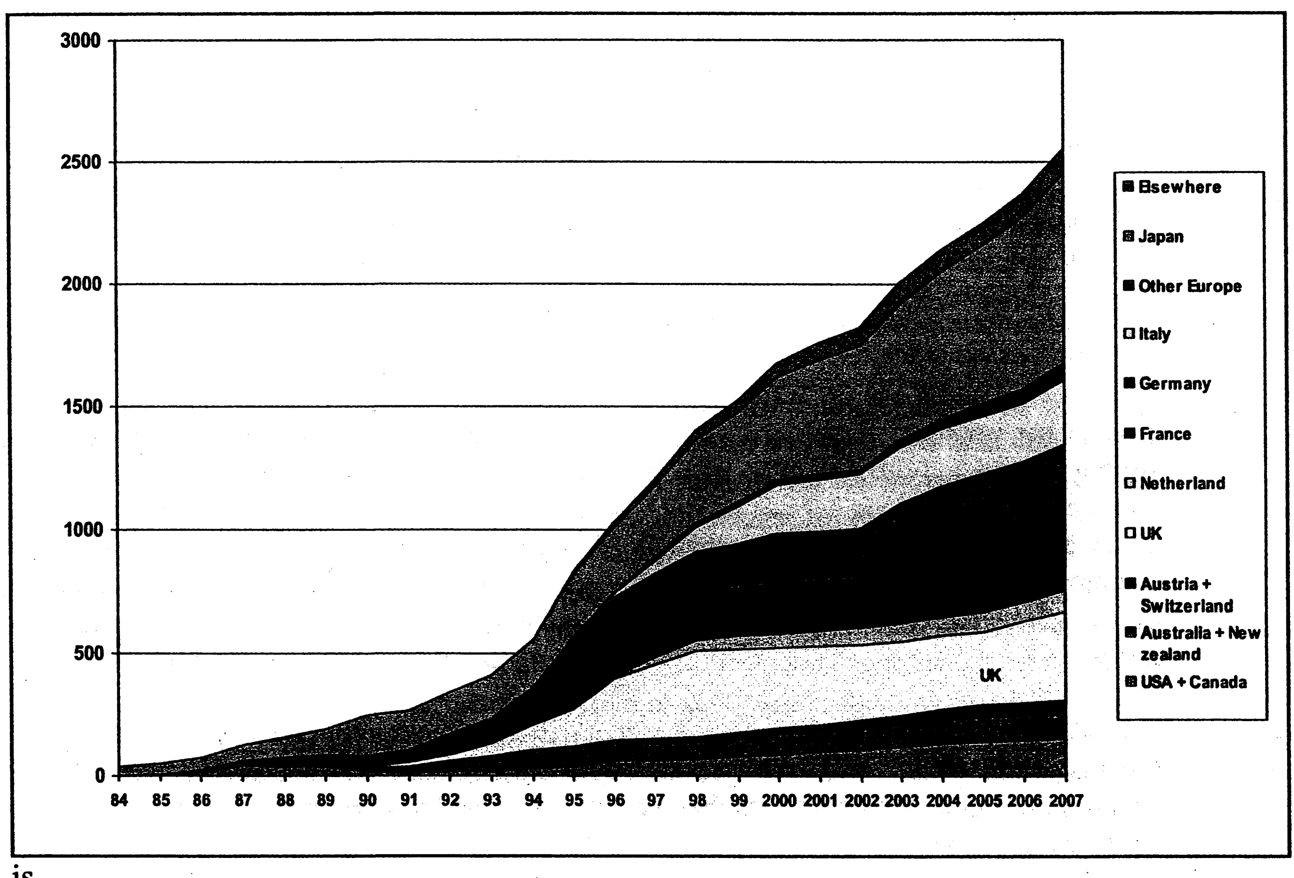

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Figure 6: Number of Social Purpose Complementary Currencies Operational in a Dozen Countries (1984-2007).
These estimates are purposely very conservative. They include only systems that were operational during the corresponding year and whose existence was verified by one of the authors through the net or in personal contact. Many more systems exist that don't feel the need to advertise their existence.

All this research has documented that people have significantly different attitudes towards different types of currencies. Even more importantly, it has proven that behaviour change can be generated systematically when incentive schemes are designed involving specialized currencies circulating in parallel with the flow of conventional national money. Evidence has accumulated in dozens of countries that complementary currency systems can be designed, for instance, to successfully improve solidarity among neighbours; to support cooperation rather than competition in a community; to encourage inter-generational elderly care; or to induce a consumer life-style that reduces carbon emissions.

As Edgar Cahn's work in Time Dollars demonstrates, whenever complementary currencies begin flowing through a community, there is an increase in the degree of diversity and interconnectivity in the system. This is due to the ability of complementary currencies to catalyze business processes and individual efforts that are too small or inefficient to compete for national currencies in a global market place (Cahn, 2004).

In short, both in the commercial and the social domains, the monopoly of conventional money as medium of exchange has already technically died without most people taking notice. But most of this has been happening on too marginal a scale to make policy makers aware of the potential of such tools to address the huge breakdowns that we know we will have to face in the 21st century.

Most of those systems are too small and/or too recent for us to be able to empirically measure their macro-economic impact. One important exception is the WIR, which has been operational since 1934, involves today about 70,000 Swiss businesses, and has an annual volume of over US$2 billion (Studer, 1998). Because of its 75 year history and the quality of the data gathered over this time, the stabilization effect of this system on the mainstream economy has been able to be proven quantitatively (Stodder, 1998, 2000, 2009). Exactly as our theoretical framework would forecast, the Stodder studies empirically demonstrate that the WIR system spontaneously behaves counter-cyclically with the mainstream economy, and thereby helps rather than hinders the efforts of the central bank to stabilize the economy. However, both conventional monetary theory and central banking practice still consider such "unorthodox" commercial currency systems as either irrelevant as long as they remain small; or as a nuisance that could perturb monetary policy if they were to grow to any significant size (Rösl, 2006).

Application to Economic Theory

The issue of diversity matters not only in types of money, but also in economic agents. Too little diversity, or too much, can precipitate instability. For example, a town that has but one very large employer will find it harder to adapt if that company goes under, than a town with several medium size employers and many more small ones.

Theoretical ecology has shown us that the dynamic balance between an efficient (streamlined, compact) network and a resilient network (looser, more diverse, with

redundant pathways) provides a measure of sustainability for any complex flow system. It provides a single metric of overall system health, which reflects how efficiently the network circulates materials and energy throughout the system, while simultaneously staying resilient enough to survive normal vicissitudes and flexible enough to adapt, develop and evolve. More efficient performance implies less latent potential, and a rather fixed structure with little scope to innovate and adapt when challenged by novel disturbances. At the other extreme, a system with too much slack and diversity may possess ample buffers, but lack the coherence and purpose to grow. Somewhere in between these extremes lies healthy sustainable development.

Current economic theory fails to differentiate healthy development from cancerous growth. Policies that promote positive-feedback growth in an economy may result in a wealth-concentrating vortex that breeds brittleness and bubbles in the same process.

The most recent banking/financial crisis shows how this works in practice. It was initially precipitated by the mortgage derivative bubble, the latest of many bubbles in a supersaturated, force-fed economy. Deregulated bankers in search of new sources of income, stockbrokers in search of hot new products to sell, and big financial investors in search of higher gains, formed a self-amplifying circuit in which gains in any segment naturally fed gains in the others. This autocatalytic loop grew rapidly by pulling in resources from the broader economic network and concentrating wealth in the hub. The result in the major economies was that, during the two decades leading up to the crash of 2008, profits in the financial sector roughly doubled as a percent of total corporate profits. . It also evolved ever more efficient (if dangerous) "pull" techniques and a kind of rigid group-think that dismissed traditional risk assessments precisely because selection pressures were intense, with those who increased gains being lavishly rewarded, and those who didn't being out of a job. While the derivative bubble triggered the crisis, the erosion of other sectors created an underlying brittleness (from debt burden, for instance) that made the broader economy susceptible along with the epicentre banking/financial circuit as well (Goerner *et al.*, 2009).

Hence the mantra of forever increasing efficiency has become misguided and counterproductive. The quest for greater economic efficiency, for example by downsizing or by "just in time" deliveries or other ways to continually increase the efficiency of value chains, has reduced the stability of the overall economic system. This phenomenon of autocatalysis can also precipitate system collapse through implosion. Examples are the dot .com bubble and the hollowing-out of small town high streets and urban neighbourhoods by "big-box" retailers (Goerner *et al.*, 2009).

The message is we must rebalance. We now have scientific proof of why a single-minded push for greater efficiency will predictably generate systemic inflexibility to the point of brittleness and failure. Equally, policies that only tweak at the edges of a senescent system do not address the structural flaws of the current system. We must understand, cultivate and nurture the complex and adaptive components of our economic system.

Complementary Currencies for Meeting the Challenges of the 21st Century

The end of the Industrial Era is coinciding with a convergence of unprecedented challenges. Global issues such as climate change, energy and resource supply squeezes, rising underemployment and a rapidly aging population come to mind. The expectation with the dawning of an Information Age is that just about everything will change in our society, but with one critical exception; that is, we are supposed to meet those challenges with the monetary tools that were designed several centuries ago: a monopoly of bank-debt money.

We could provide many examples to give a sense of what the future could hold with a new, diversified monetary structure. To just take one, there is now almost universal consensus that we will need to massively shift to a lower carbon economy worldwide. The favoured instrument to achieve this is a market in carbon emission rights (traded in US$ or Euros). This is an indirect, hence a somewhat blunt and unreliable means, to achieve this aim. Specialized complementary currencies can function more directly and in a fully guaranteed way. For example, a UK proposal uses a complementary currency called a Tradable Energy Quota (TEQs). A given quantity of TEQs is created, corresponding to the maximum emissions for that year and country, or region. When an individual, business or government entity buys energy, such as petrol for your car or electricity for a business, payments occur in two currencies: the cost in conventional money (as today) and a quantity of TEQs corresponding to the corresponding carbon content. Those who spend more than their quota have to obtain other people's surplus TEQs through an electronic auction system. Such dual currency payments would be completely electronic and automatic, typically using direct-debit technology (see details on www.teqs.net).

A completely different complementary currency approach is a voluntary citizen-based experiment in the Netherlands with a carbon-reducing complementary currency. It can be seen as a loyalty currency for rewarding green behaviour. Credits are earned when a carbon-reducing activity is performed by a consumer (e.g. investing in solar panels). These credits can then be spent to purchase other carbon-reducing services or products (e.g. paying for public transport), thereby creating an economy with a virtuous loop of carbon reductions (see details in www.nu-kaart.nl). If a city, region or national government wanted to make such behaviour compulsory, it could raise a tax payable in such a currency. This is, after all, the mechanism by which the demand for conventional bank-debt money is made compulsory by governments (Wray, 1998).

Conclusions

Ironically, our financial system is so fragile because it has become too efficient. Our modern monetary system is based on a monoculture of a single type of money (all our national currencies have in common to be generated as bank-debt money). This monoculture is legally imposed in the name of market efficiency. Furthermore, governments enforce this monopoly by requiring that all taxes be paid exclusively in this particular type of currency.

Unlike natural systems ("you cannot negotiate with a living cell …"), economic systems are completely manageable because we built them. But "manageable changes" like new regulations, or changed personnel at the top of our financial institutions, will at best only reduce the frequency of the crashes, not eliminate them. This doesn't mean that managerial changes are not justified, useful and necessary; but we claim that whatever is done at that level will, in the end, reveal itself to be insufficient. This is *not* a management problem, it's a *structural* problem.

So the good news is that the repeated financial and monetary crises are avoidable. However, that will happen if, and only if, we are willing to revisit the structure of our money system. Specifically, different types of currencies issued by different types of institutions would provide the diversity and the higher interconnectivity that a resilient financial system would require.

The most valuable role for government in implementing our proposed approach could limit itself to specifying the kind of currency other than conventional bank-debt national money it would accept in payment of fees and taxes. Interestingly, Uruguay has been the first country to follow precisely such a strategy by accepting an electronic business-to-business generated currency called C3 (for Commercial Credit Circuit) for all payments of fees and taxes, in addition to the conventional national money. Their reason: it is a very effective way to increase employment through the small and medium-sized enterprises (which represent over 90% of private employment in that country), because it provides working capital to the participating businesses without costing anything to the government. A bank plays the role of converting the C3 units into national currency when requested, at a cost borne by the participating business making that request (see details on www.lietaer.com).

So why is such an approach not generalized? It may still be too new for the worldwide institutional framework – including global organizations such as the IMF and the World Bank, and each country's central bank – that has as crucial mandate to ensure the stability of the monetary and financial environment. Monetary orthodoxy continues to prevail: achieving the objective of monetary stability requires the safeguarding of the monopoly of the existing money creation process. This orthodoxy is part of the powerful auto-catalytic forces that engender and protect banks that become "too big to fail". As a consequence, some of the remedies that are now being applied are actually worsening the structural problem.

What governments learned in the 1930s is that they can't let the banking system sink, without risking a collapse of the entire economy. Unfortunately, governments may learn in the on-going crisis that they can't afford to save the banking system.

Financial regulators and policy makers, on their side, are in the uncomfortable role of trying to control the defective car sent over a mountain range described as a metaphor at the beginning of this paper. Alan Greenspan, former governor of the Federal Reserve, now admits that "the world will suffer another financial crisis" but blames "human

nature" for this state of affairs[6]. The problem with this interpretation is that changing human nature isn't a very realistic basis for attaining global financial stability any time soon.

If this crisis is structural, as we have argued, then only a structural solution will actually achieve the regulators' aim. At this point, however, the prevailing orthodox idea that we need to enforce a monopoly of a single national currency, one in each country or group of countries, remains firmly in place, despite the massive systemic collapse in 2008. Let us please remember that it is orthodoxy that got us into this trouble...

Maybe, after all, it is part of human nature to refuse to learn from nature in the monetary domain? The trillion dollar question becomes therefore: how many more banking and monetary crashes do we have to live through before we have the humility to learn from nature in this domain?

[6] Interview of September 8, 2009 on BBC2 http://news.bbc.co.uk/2/hi/8244600.stm

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An equivalent list can be established for foreign silver coins:

Country	Coin Name	Troy Oz							
Australia	Kookaburra	10	x	x	1	x	x	x	x
	Lunar	10	5	2	1	1/2	x	x	x
	Koala	10	x	x	1	1/2	x	x	x
Austria	Vienna Philharmonic	x	x	x	1	x	x	x	x
Canada	Maple Leaf	x	x	x	1	x	x	x	x
China	Panda	x	5	x	1	x	x	x	x
Mexico	Libertad	x	5	2	1	1/2	1/4	1/10	1/20
New Zealand	Fern	x	x	x	1	x	x	x	x
United Kingdom	Britannia	x	x	x	1	1/2	1/4	1/10	x

The only difference between the countries in the gold list and the ones on the silver list is South Africa. South Africa produces a notable gold coin, the Krugerrand, but no silver coin of equivalent standing.

The proposal is to pass legislation making the coins listed above legal tender in Utah, in addition to U.S. gold and silver coins that already enjoy this status. It is only by recognizing as legal tender gold and silver coins issued by a wide range of authorities that choice in currency can be effectively secured.

Foreign Gold and Silver Coins

Olivier Ledoit

Thursday, September 29, 2011

The right to choose one's currency is a human right as critical as the right to choose one's employer. *Not* being allowed to choose one's employer is the very definition of slavery, and the abolition of slavery is rightfully regarded as a major progress for mankind. The equivalency between choice of currency and choice of employer is justified because both money and income are essential to securing the livelihood of the Citizen.

The Utah Sound Money Act signed by Governor Gary Herbert on March 25, 2011 enshrines choice in currency into Utah law. It gives Utahns the choice between three legal tender currencies: the U.S. dollar, gold coins, and silver coins.

The next logical step is to give Utahns choice in currency *within* the last two of these currency categories. At present there is no choice among gold coins: only gold coins minted by the Federal Government are legal tender. There is no choice either among silver coins: only silver coins minted by the Federal Government are legal tender. Since choice is better than monopoly, it is highly desirable to broaden the range of gold and silver coins that are legal tender in Utah.

It is not just a matter of logic and desirability. It is also a matter of State sovereignty. When there is only one authority that issues legal tender coins, this authority has monopoly power. The most obvious examples of potential abuses of monopoly power include, but are not limited to:

- artificially restricting the supply of legal tender coins to create a liquidity crisis;
- selling legal tender coins at a large premium over their metallic content;
- purchasing silver mines, increasing their production, and flooding the market with freshly minted legal tender coins so as to reduce their purchasing power;
- producing coins of inferior quality;
- not producing coins in the variety of weights that people need and want;
- changing the precious metal content of the coins in a way that is not immediately discernible to the non-expert;
- stamping confusing information on the coins, such as face values that do not make any logical sense.

This is just for the sake of illustration, as the possibilities for abuse of monopoly power are effectively limitless.

If, by contrast, there are many different entities that issue legal tender coins, none of these entities has monopoly power. Competition reduces the power of the issuing authority. Conversely, competition increases the power of every Utah citizen to choose the coins minted by the authority he or she deems the most honest and competent. Broadening the range of gold and silver coins recognized as legal tender redistributes power away from non-Utah authorities to Utah citizens. It is an essential protection of the right to choose one's currency. Without this diversification, choice in currency can be *de facto* annihilated.

In practice, 8 or 9 different authorities should be sufficient to dilute monopoly power and to minimize the risk of collusion. There are good reasons to avoid over-extending the range of legal tender coins. Only coins minted by countries in good standing in the international community should be considered. In order to minimize confusion, only coins denominated in integer multiples or fractions of a Troy Ounce should be considered. The list should be restricted to so-called "bullion coins", i.e., coins that are valued mainly for their precious metal content, not for numismatic interest, historical reasons, or state-imposed face value. Within these guidelines, it is possible to establish a preliminary list of foreign gold coins that would be eligible for legal tender status:

Country	**Coin Name**	**Troy Oz**						
Australia	Kangaroo	x	x	1	1/2	1/4	1/10	x
	Lunar	10	2	1	1/2	1/4	1/10	1/20
	Nugget	10	2	1	1/2	1/4	1/10	1/20
Austria	Vienna Philharmonic	x	x	1	1/2	1/4	1/10	x
Canada	Maple Leaf	x	x	1	1/2	1/4	1/10	1/20
China	Panda	x	x	1	1/2	1/4	1/10	1/20
Mexico	Libertad	x	x	1	1/2	1/4	1/10	1/20
New Zealand	Kiwi	x	x	1	1/2	1/4	1/10	x
South Africa	Krugerrand	x	x	1	1/2	1/4	1/10	x
United Kingdom	Britannia	x	x	1	1/2	1/4	1/10	x

The symbol "x" means that a coin of this type is not produced in a given weight.

An equivalent list can be established for foreign silver coins:

Country	Coin Name	Troy Oz							
Australia	Kookaburra	10	x	x	1	x	x	x	x
	Lunar	10	5	2	1	1/2	x	x	x
	Koala	10	x	x	1	1/2	x	x	x
Austria	Vienna Philharmonic	x	x	x	1	x	x	x	x
Canada	Maple Leaf	x	x	x	1	x	x	x	x
China	Panda	x	5	x	1	x	x	x	x
Mexico	Libertad	x	5	2	1	1/2	1/4	1/10	1/20
New Zealand	Fern	x	x	x	1	x	x	x	x
United Kingdom	Britannia	x	x	x	1	1/2	1/4	1/10	x

The only difference between the countries in the gold list and the ones on the silver list is South Africa. South Africa produces a notable gold coin, the Krugerrand, but no silver coin of equivalent standing.

The proposal is to pass legislation making the coins listed above legal tender in Utah, in addition to U.S. gold and silver coins that already enjoy this status. It is only by recognizing as legal tender gold and silver coins issued by a wide range of authorities that choice in currency can be effectively secured.

Silver Weight Equivalents

Troy Ounce	Penny Weight	Grain	Gram	Post-1985 Coin	Pre-1965 Coin	Market Value
1.00	20	480	31.10	1 American Eagle	13 dimes	$40.00
0.50	10	240	15.55	N/A	4 dimes + 1 quarter	$20.00
0.25	5	120	7.78	N/A	N/A	$10.00
0.10	2	48	3.11	N/A	N/A	$4.00
0.077	1.538	37.125	2.39	N/A	1 dime	$3.08
0.05	1	24	1.56	N/A	N/A	$2.00
0.025	0.5 Ha'penny	12	0.78	N/A	N/A	$1.00
0.0125	0.25 Farthing	6	0.39	N/A	N/A	$0.50

Fine Silver = 0.999 silver content = Post-1985 U.S. Walking Liberty

Coin Silver = 0.9 silver content = Pre-1965 dimes, quarters and halves