



Banking on Failure

The Problems in the Banking System and How to
Fix Them

Maxwell

Lally School of Management
Seminar – October 2014

Joe Pimbley

<http://www.maxwell-consulting.com/>

- 
- Quantitative Risk Manager's Perspective
 - Problem: Leverage; Fractional Reserve Banking; & Guarantees
 - Solution: Full Reserve Banking
 - Monetary Policy – Make Money Real !

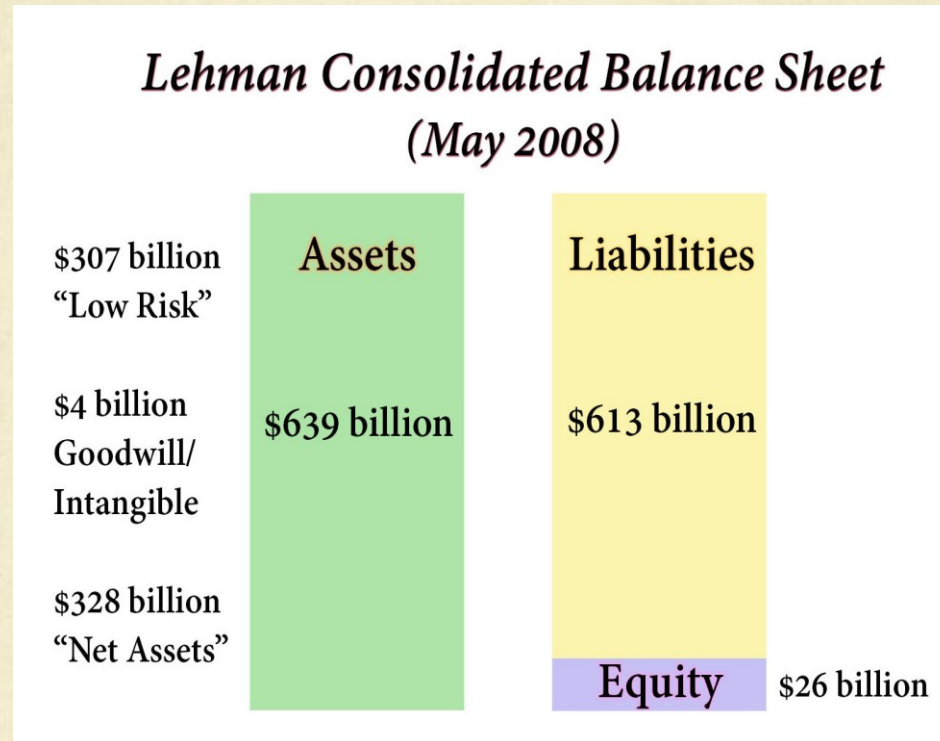
When Genius Failed	R. Lowenstein
The Education of a Speculator	V. Niederhoffer
FIASCO: Blood in the Water on Wall Street	F. Partnoy
Conspiracy of Fools	K. Eichenwald
Big Bets Gone Bad	P. Jorion
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A Primer on Money, Banking, and Gold	P. Bernstein
Lombard Street - a description of the money market	W. Bagehot
Bull by the Horns	S. Bair
Money of the Mind	J. Grant
The Ascent of Money	N. Ferguson
Fragile by Design - The Political Origins of Banking Crises & Scarce Credit	C. W. Calomiris and S. H. Haber
The Bankers' New Clothes: What's Wrong with Banking and What to Do About It	A. Admati and M. Hellwig
The Case for a 100 Percent Gold Dollar	M. N. Rothbard

Read History and Analysis !

BANKS: What is the Problem?

- ✧ Fail frequently and taxpayers “must” support
- ✧ Regulation to “prevent” failures is intrusive, expensive, and ineffective
- ✧ Failing, weak, or zombie banks reduce lending which decreases money supply => deflation

Why are Banks Different ?

BANKS: Fail Frequently – RISKY !

**Huge Leverage – Typical of Banks and Similar
Financial Entities**

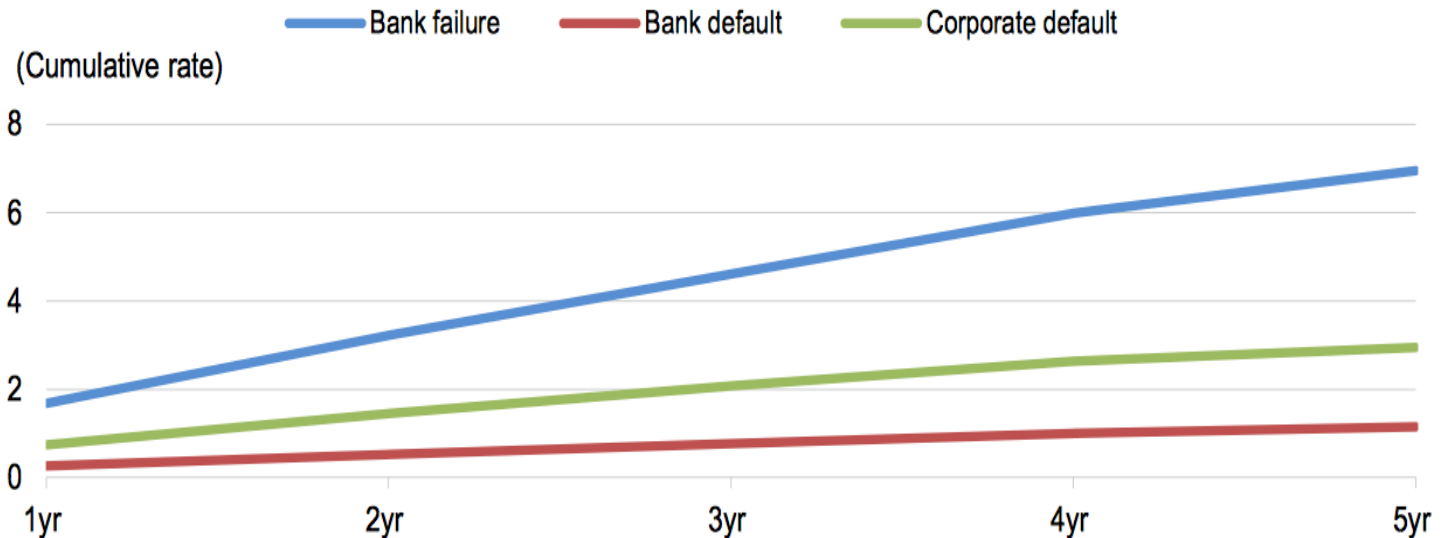
BANKS: Fail Frequently – RISKY !

Company/Bank	Total Liabilities (\$ billion)	Equity (\$ billion)	L/E	Date of 10-K
Citigroup	1,670	204	8.19	Dec-13
JP Morgan Chase	2,160	211	10.2	Dec-13
Walmart	122	76.0	1.61	Jan-14
Target	28.3	16.2	1.75	Jan-14
JC Penney	8.71	3.09	2.82	Jan-14
Kellogg Company	11.9	3.55	3.35	Dec-13
Campbell Soup	7.11	1.22	5.83	Jul-13
Clorox	4.17	0.15	28.6	Jun-13
Amazon	30.4	9.75	3.12	Dec-13
Intel	34.1	58.3	0.585	Dec-13
United Parcel Service	29.7	6.47	4.59	Dec-13
Merck	53.3	49.8	1.070	Dec-13
General Electric	520	131	3.97	Dec-13
Deere & Company	49.3	10.30	4.79	Oct-13
Procter & Gamble	70.6	68.1	1.04	Jun-13
Google	23.6	87.3	0.270	Dec-13
American Airlines	45.0	(2.73)	NM	Dec-13
United Continental	33.8	2.980	11.3	Dec-13
Goldman Sachs	833.0	78.500	10.6	Dec-13

**Bank Leverage is Much Higher Than That of Other
Corporate Entities**

BANKS: Fail Frequently – RISKY !**The Value of Support: Bank Failure vs. Default Rates (1990-2012)**

Failure rates YE89-YE12



Source: Fitch

**Bank Failure Rate is DEFAULT Rate in the absence
of government rescue / bailout**

BANKS: Fail Frequently – RISKY !

Fitch Global Corporate Finance Average Cumulative Default Rates: 1990–2012

(%)	One-Year	Two-Year	Three-Year	Four-Year	Five-Year	10-Year
AAA	0.00	0.00	0.00	0.00	0.00	0.00
AA	0.03	0.03	0.07	0.13	0.19	0.19
A	0.08	0.24	0.41	0.57	0.76	1.93
BBB	0.20	0.68	1.23	1.84	2.45	4.73
BB	1.05	2.80	4.46	5.97	6.91	11.55
B	2.02	4.79	7.24	9.50	10.52	11.60
CCC to C	24.88	31.87	35.59	38.32	36.84	43.75
Investment Grade	0.12	0.36	0.64	0.92	1.22	2.29
Speculative Grade	2.99	5.53	7.66	9.51	10.25	14.14
All Corporates	0.74	1.45	2.08	2.63	2.95	4.14

Source: Fitch.

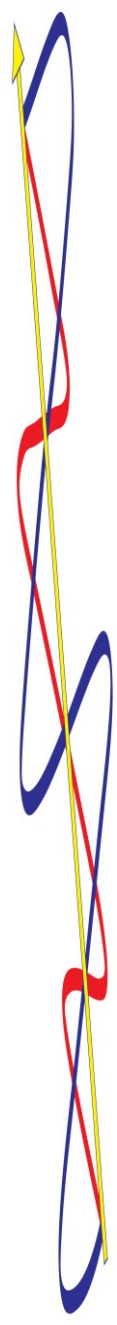
Banks are JUNK !!

(Bank “Failure Rating” is below Investment Grade)

QRM Observations

- ✧ Need much lower leverage – see Admati and Hellwig *Bankers' New Clothes*
- ✧ Mismatch of assets and liabilities is historical mistake
- ✧ Regulation has failed and will fail – see Sheila Bair *Bull by the Horns* – purported capital models are entirely wrong; regulators are “trapped” – also see Calomiris and Haber *Fragile by Design*

- ✧ Bank Deposits are Debt Obligations of the Bank
- ✧ Depositors may withdraw funds at ANY TIME with NO advance notice
- ✧ Yet Banks DO NOT HOLD CASH (or reserves) to Pay Depositors
- ✧ “Reserve Requirement” is 10% in the U.S.

- 
- ✧ Risk Manager: UNSAFE and UNSOUND !!
 - ✧ Depositors are thus DEBT INVESTORS in the Bank and have Risk to Bank Activities
 - ✧ “Those Dishonest Goldsmiths”
 - ✧ Government Deposit Insurance – Not a Solution !



Deposits are Bank Debt with Daily Maturity
Risky and Unstable !
“Run on the Bank”



“Ancient History” Depiction of Fractional Reserve Banking or Gold Standard – Creates More Money !

Those Dishonest Goldsmiths

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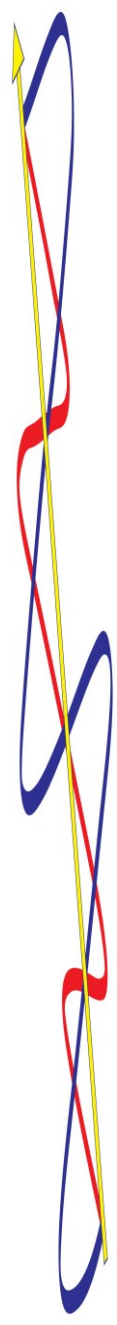
Revised
January 20, 2011

Abstract: London's 17th-century goldsmiths are supposed to have invented fractional-reserve banking by clandestinely lending coin they were supposed to store. But this claim is neither supported by contemporary testimony nor consistent with English law of the time, which generally gave goldsmiths title to any loose coin handed over to them. In short, the goldsmiths were almost certainly innocent of the crime for which they are so frequently accused. The myth to the contrary may have resulted from the confusion of (1) crimes other than embezzlement of which goldsmiths were accused by their contemporaries with (2) documented embezzlement of stored coin not by goldsmiths but by the British crown and by some merchants' servants.

Keywords: 100 percent reserves, bailment, banking, fractional reserves, fraud, goldsmiths.

JEL Classifications: G21, K12, N23

<http://ssrn.com/abstract=1589709>

- 
- ✧ “Reserve Requirement” ➔ 100%
 - ✧ Drastic Change !
 - ✧ All else equal, Money Supply ↓ => Deflation
 - ✧ Bank Deposits “Completely Safe”

The Chicago Plan Revisited

Author/Editor: Benes, Jaromir ; Kumhof, Michael

Publication Date: August 01, 2012

Electronic Access: [Free Full text](#) (PDF file size 1.1 MB)
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Full reserve banking is also known as **100% reserve banking**

A collection of resources for anyone interested in this alternative monetary system.



Some people dismiss Full Reserve Banking (the opposite of Fractional Reserve Banking) as a crazy system not taken seriously by any leading economists. This is entirely false. As recently as 2010, Mervyn King, the governor of the Bank of England, said in a letter to a full reserve banking supporter...

You might be aware that I have said publicly that I think ideas in this spirit - such as those advocated by John Kay - certainly merit serious consideration in the debate as to how we reform our financial system. I remain sympathetic to these views.

Narrow Banking

George Pennacchi

IBE Professor of Finance, University of Illinois, Champaign, Illinois 61820; email: gpennacc@illinois.edu

Abstract

This review discusses the history of narrow banks, reform proposals involving narrow banks, and theory and empirical evidence regarding whether narrow banks should play a more prominent role in the financial system. Prior to the early-twentieth century, US banks tended to be much narrower than they are today. Common modern banking practices, such as maturity transformation and explicit loan commitments, arose only after the creation of the Federal Reserve and the FDIC. My review of theory and empirical evidence finds it largely supportive of narrow banking system could reduce the hazard and reduce the financial system.

The University of Chicago

Keywords

bank regulation, narrow banks, companies, deposits

JEL codes: G21, G22

Irving Fisher and the 100 Percent Reserve Proposal

Author(s): William R. Allen

Source: *Journal of Law and Economics*, Vol. 36, No. 2 (Oct., 1993), pp. 703-717

Published by: [The University of Chicago Press](#)

Stable URL: <http://www.jstor.org/stable/725805>

Accessed: 11/05/2011 08:22

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...y. New York: Fordham Uni-

...on, D.C.: Brookings Institu-

...al Banking Reform. Unpub-
Bard College, Jerome Levy

...iety. Chicago: University of

...in Mathews & Marrot, 1931.
...rge Routledge & Sons, 1934.

ASSETS

LIABILITIES

All Other Bank Assets
& Risky Activities

“B”

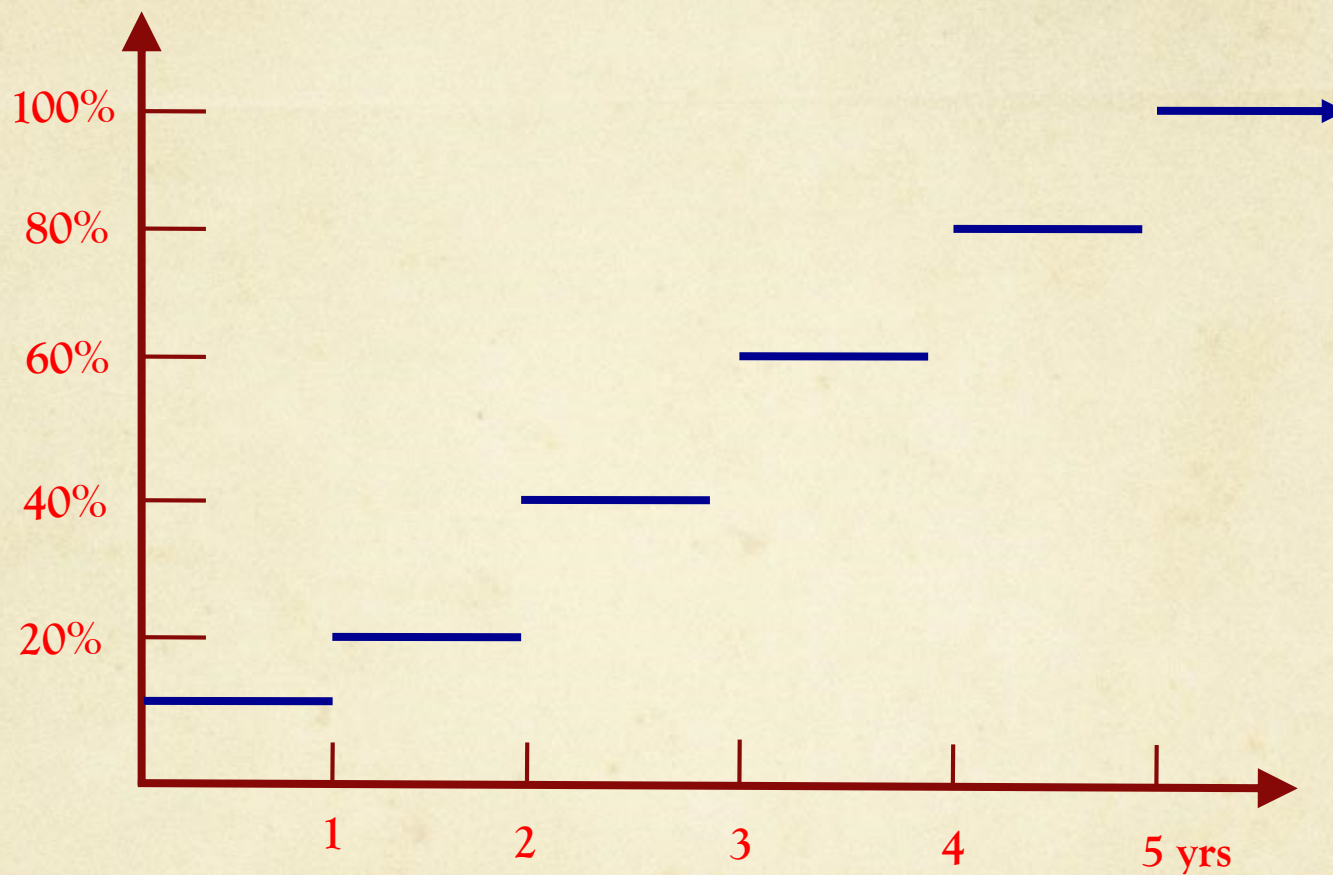
All Other Bank Debt
& Equity

Cash & Reserves

“A”

All Deposits
+ Some Equity

Split Each Bank into “Bank A” and “Bank B”



Transition to 100% Reserve over Five Years
Banks already have Excess Reserves !

DEFLATION PROBLEM !

- ✧ Full Reserve Banking decreases Money Supply
- ✧ Deflation would be “confusing” and detrimental to debtors
- ✧ Solution: “Quantitative Easing” to maintain price level during transition period ONLY

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April 24, 2014 1:32 pm

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Strip private banks of their power to create money



By Martin Wolf

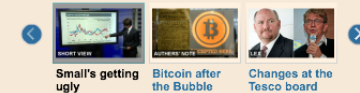
Author alerts ▾

The giant hole at the heart of our market economies needs to be plugged

Printing counterfeit banknotes is illegal, but creating private money is not. The interdependence between the state and the businesses that can do this is the source of much of the instability of our economies. It could – and should – be terminated.

I explained how this works [two weeks ago](#). Banks create deposits as a byproduct of their lending. In the UK, such deposits make up about 97 per cent of the money supply. Some people object that deposits are not money but only transferable private debts. Yet the public views the banks' imitation money as electronic cash: a safe source of purchasing power.

VIDEOS

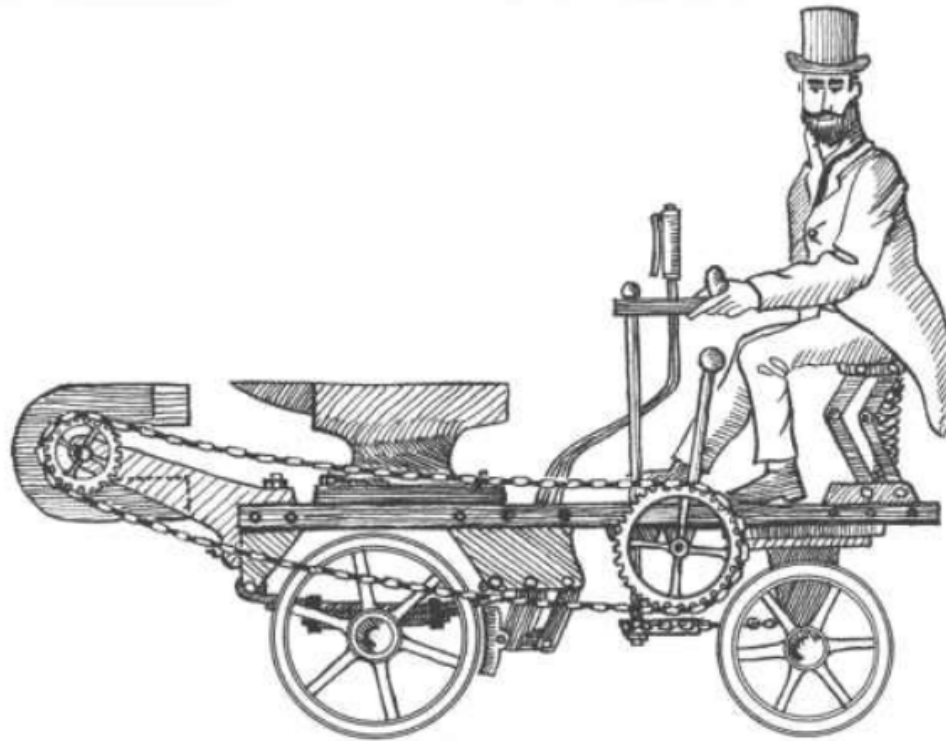


What would the Central Bank buy in its QE?
More Government Debt?!

MARVELOUS OPPORTUNITY !

- ✧ Buy Gold! Move to Gold Standard Policy!
- ✧ Quantitative Easing with Gold Purchases would be Revolutionary and Controversial!
- ✧ “Extreme” – “Fringe” – “Barbarous Relic”

Hans-Peter Gramatke contributes this elegant design to our museum that takes advantage of the "dog chasing its tail" principle. The magnet at the front of the car pulls on the steel anvil, moving the car forward. When the driver wishes to slow or stop the vehicle, he pulls the lever that rotates the magnet to a less effective position. Then he may apply the brake.



Fiat Money - Does it Make Any Sense ?

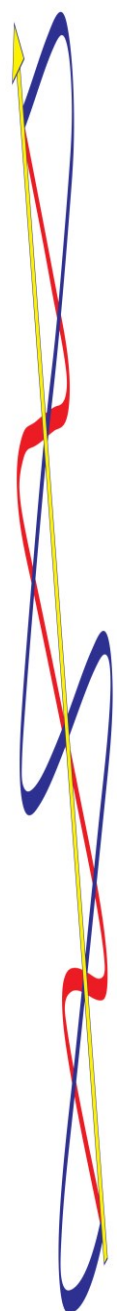
FIAT MONEY

- ✧ Worthless Tokens or Paper are Defined and Decreed to Have Value by Government
- ✧ It “Works” while People Have Confidence (?)
- ✧ Global Fiat Money for > 40 Years as of 2014
- ✧ Long History Always a Failure

REQUIREMENTS FOR “MONEY”

- ✧ “Certainty” that all people will value
- ✧ Can save for future years with “known value”
- ✧ Can transmit over long distance for payments

Is There ANY Solution ?

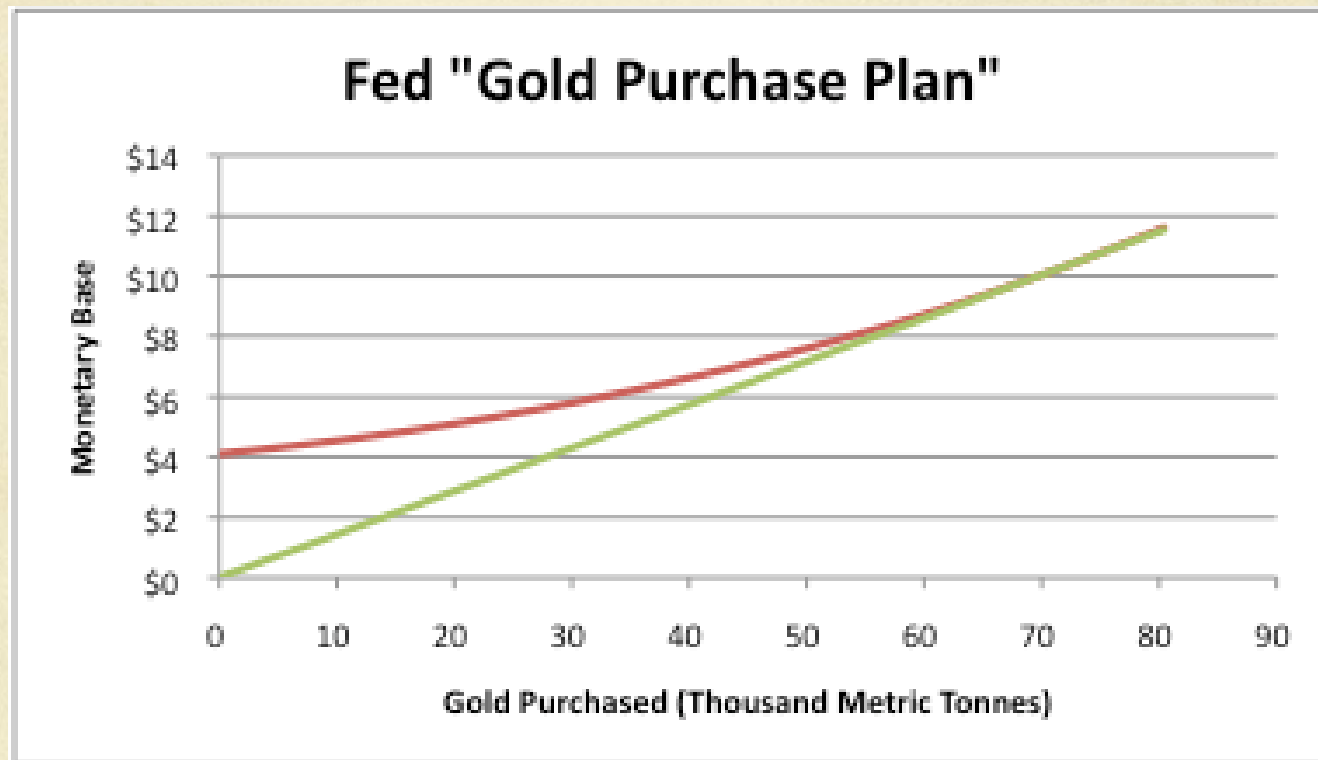


Periodic Table of Elements																																			
1A 1A																		13A 3A		14A 4A		15A 5A		16A 6A		17A 7A		18A 8A							
1 H Hydrogen 1.008																		5 B Boron 10.811	6 C Carbon 12.011	7 N Nitrogen 14.007	8 O Oxygen 15.999	9 F Fluorine 18.998	10 Ne Neon 20.180												
3 Li Lithium 6.941	4 Be Beryllium 9.012																	13 Al Aluminum 26.982	14 Si Silicon 28.086	15 P Phosphorus 30.974	16 S Sulfur 32.065	17 Cl Chlorine 35.453	18 Ar Argon 39.948												
11 Na Sodium 22.990	12 Mg Magnesium 24.305																	29 Cu Copper 63.546	30 Zn Zinc 65.39			47 Ag Silver 107.868	48 Cd Cadmium 112.411			55 Cs Cesium 132.905	56 Ba Barium 137.327			87 Fr Francium 223.020	88 Ra Radium 226.025				
19 K Potassium 39.098	20 Ca Calcium 40.078	21 Sc Scandium 44.956	22 Ti Titanium 47.88	23 V Vanadium 50.942	24 Cr Chromium 51.996	25 Mn Manganese 54.938	26 Fe Iron 55.833	27 Co Cobalt 58.933	28 Ni Nickel 58.693	29 Cu Copper 63.546	30 Zn Zinc 65.39	31 Ga Gallium 69.723	32 Ge Germanium 72.61	33 As Arsenic 74.922	34 Se Selenium 78.96	35 Br Bromine 79.904	36 Kr Krypton 84.96																		
37 Rb Rubidium 84.468	38 Sr Strontium 87.62	39 Y Yttrium 88.906	40 Zr Zirconium 91.224	41 Nb Niobium 92.906	42 Mo Molybdenum 95.94	43 Tc Technetium 98.907	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.906	46 Pd Palladium 106.42	47 Ag Silver 107.868	48 Cd Cadmium 112.411	49 In Indium 114.818	50 Sn Tin 118.71	51 Sb Antimony 121.760	52 Te Tellurium 127.6	53 I Iodine 126.904	54 Xe Xenon 131.29																		
55 Cs Cesium 132.905	56 Ba Barium 137.327	57-71	72 Hf Hafnium 178.49	73 Ta Tantalum 180.948	74 W Tungsten 183.85	75 Re Rhenium 186.207	76 Os Osmium 190.23	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.967	80 Hg Mercury 200.59	81 Tl Thallium 204.383	82 Pb Lead 207.2	83 Bi Bismuth 208.980	84 Po Polonium [209]	85 At Astatine 209.987	86 Rn Radon 222.018																		
87 Fr Francium 223.020	88 Ra Radium 226.025	89-103	104 Rf Rutherfordium [261]	105 Db Dubnium [262]	106 Sg Seaborgium [266]	107 Bh Bohrium [264]	108 Hs Hassium [269]	109 Mt Meitnerium [268]	110 Ds Darmstadtium [291]	111 Rg Roentgenium [272]	112 Cn Copernicium [277]	113 Uut Ununtrium [288]	114 Fl Flerovium [289]	115 Uup Ununpentium [294]	116 Lv Livermorium [293]	117 Uus Ununseptium [294]	118 Uuo Ununoctium [294]																		
Lanthanide Series																																			
57 La Lanthanum 138.906																		63 Eu Europium 151.966																	
58 Ce Cerium 140.115																		64 Gd Gadolinium 157.25																	
59 Pr Praseodymium 140.908																		65 Tb Terbium 158.925																	
60 Nd Neodymium 144.24																		66 Dy Dysprosium 162.50																	
61 Pm Promethium 144.913																		67 Ho Holmium 164.930																	
62 Sm Samarium 150.36																		68 Er Erbium 167.26																	
63 Eu Europium 151.966																		69 Tm Thulium 168.934																	
64 Gd Gadolinium 157.25																		70 Yb Ytterbium 173.04																	
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89 Ac Actinium 227.028																		95 Am Americium 243.061																	
90 Th Thorium 232.038																		96 Cm Curium 247.070																	
91 Pa Protactinium 231.036																		97 Bk Berkelium 247.070																	
92 U Uranium 238.029																		98 Cf Californium 251.080																	
93 Np Neptunium 237.048																		99 Es Einsteinium [254]																	
94 Pu Plutonium 244.064																		100 Fm Fermium 257.095																	
95 Am Americium 243.061																		101 Md Mendelevium 258.1																	
96 Cm Curium 247.070																		102 No Nobelium 259.101																	
97 Bk Berkelium 247.070																		103 Lr Lawrencium [262]																	
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101 Md Mendelevium 258.1																																			
102 No Nobelium 259.101																																			
103 Lr Lawrencium [262]																																			

Gold – Silver – Copper !

“You Can’t Eat Gold”

“What If Everybody Stops Liking Gold?”



Gold Price begins at \$1,200 per ounce
At tangent point, Gold is Fully Convertible

James Madison, one of the architects of the U.S. Constitution and later the fourth President, wrote his famous line “if men were angels, no government would be necessary” in the *Federalist Papers*.²⁷⁰ Within this same document, Madison also wrote:²⁷¹

“In framing a government which is to be administered by men over men, the great difficulty lies in this; you must first enable the government to control the governed; and in the next place oblige it to control itself. A dependence on the people is, no doubt, the primary control on the government; but experience has taught mankind the necessity of auxiliary precautions.”

We view a true gold standard to be one effective and appropriate “auxiliary precaution” to bind the monetary policy of government.

The Gold Standard is a Restraint on Government

Conclusion and

- Banks' Weakness due to High Leverage, Fractional Reserve, and Gov't Guarantees
- Impose Full Reserve Banking, Remove Guarantees, Split Banks into "A" and "B"
- Fix the Deflation Consequence with Gold QE
- Gold Standard Mitigates Monetary Risk

Benefits

- Simpler
- Preserves the Payment System
- Eliminates Gov't Guarantees and Lending
- Permits Banks to Fail Without Harm
- Breaks Link Between Sovereign & Bank Risk
- Eliminates Banks' Role in Money Supply
- Greatly Reduces Bank Regulation
- Eliminates Bank Runs
- Eliminates Systemic Risk
- Costs Nothing