The Debt Crisis and Gold

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September 2012

1. Manufacturing Money

Where Does Our Current Money Come From?

- Ever noticed that there is a lot more money around than there was, say, 20 years ago?

- So someone is ***manufacturing*** it (literally making money).

What if You Could Manufacture Money?

- No "work" – producing goods or services that others want.
- Freedom! Material wealth! Buy almost anyone to do almost anything!

The Origins of Banking

1. Goldsmiths took gold deposits, issued receipts.
2. The receipts circulated as money, more convenient than the metal.
3. Goldsmiths learned they could issue more "receipts" than they had gold. Banking was born!

More Receipts than Gold

- Lend out extra receipts and charge interest on them (risk of non repayment, profit).
- Typically safe-ish to issue 10 times as many receipts as gold deposits—amplification.

Depositor

Goldsmith

Borrowers

A Typical Gold Standard

The two types of "Money":

Base Money

- Gold.
- Dug out of the ground.
- 10% of money supply.

Bank Money

- Receipts for gold.
- Created out of nothing by banks (which evolved from goldsmiths), by lending.
- 90% of money supply.

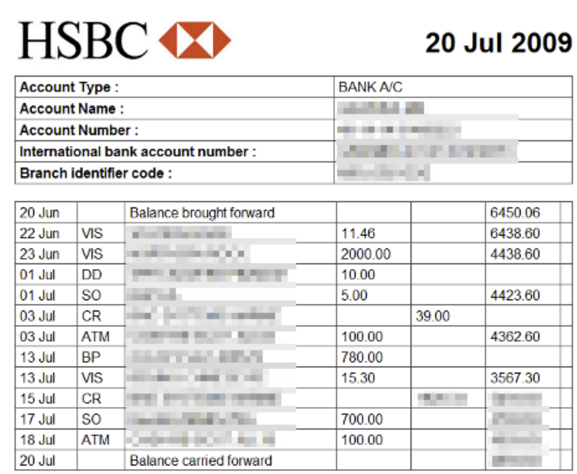
Modern Money

Base Money

- Either physical cash *or* numbers in bank accounts at the central bank.
- Created out of nothing by government, on whim.
- 5-10% of money supply.

Bank Money ("credit")

- Numbers in bank accounts at commercial banks, *which are receipts for base money.*
- Created out of nothing by commercial banks, by lending.
- 90-95% of money supply.



HSBC 20 Jul 2009

Account Type :	BANK A/C
Account Name :	[illegible]
Account Number :	[illegible]
International bank account number :	[illegible]
Branch identifier code :	[illegible]

20 Jun		Balance brought forward			6450.06
22 Jun	VIS	[illegible]	11.46		6438.60
23 Jun	VIS	[illegible]	2000.00		4438.60
01 Jul	DD	[illegible]	10.00		
01 Jul	SO	[illegible]	5.00		4423.60
03 Jul	CR	[illegible]		39.00	
03 Jul	ATM	[illegible]	100.00		4362.60
13 Jul	BP	[illegible]	780.00		
13 Jul	VIS	[illegible]	15.30		3567.30
15 Jul	CR	[illegible]		[illegible]	[illegible]
17 Jul	SO	[illegible]	700.00		[illegible]
18 Jul	ATM	[illegible]	100.00		[illegible]
20 Jul		Balance carried forward			[illegible]

Constraints on Manufacture

Base Money

- No technical constraints.
- Moderated in practice only by desire *not to raise inflationary expectations*.

Bank Money

- Basel Accords effectively limit amplification to about 20.
- Commercial banks limited by Basel formula, based on:
  - Equity capital of bank
  - Riskiness of loans
  - Depositor's funds

What Could Possibly Go Wrong??

- Both parts of the current money system create something-for-nothing:
  1. **Base money**, created by the central bank.
  2. **Bank money**, created by commercial banks.

- Any money system that creates money from nothing is *unstable historically* because it eventually gets debased.

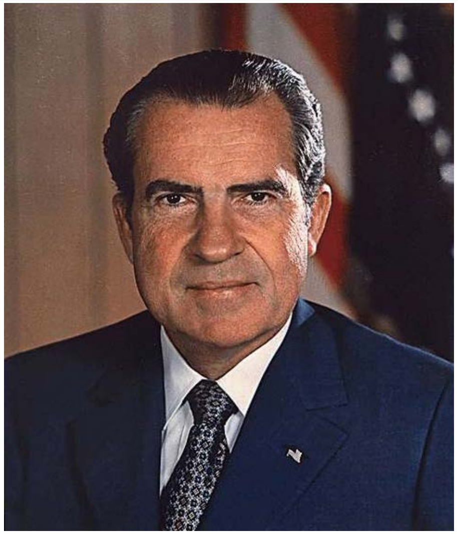
2. Our Debt Crisis

Monetary Experiment Starts 1982

- Novel money system started in 1971 when Nixon “closed the gold window”, changing from gold base to paper base.

- Historically, paper currencies usually die after 25 – 50 years.
- It’s now 41 years since 1971.

- Stagflation in 1970s, reset in 1980 by 20% interest rates.



Debt-to-GDP Ratio

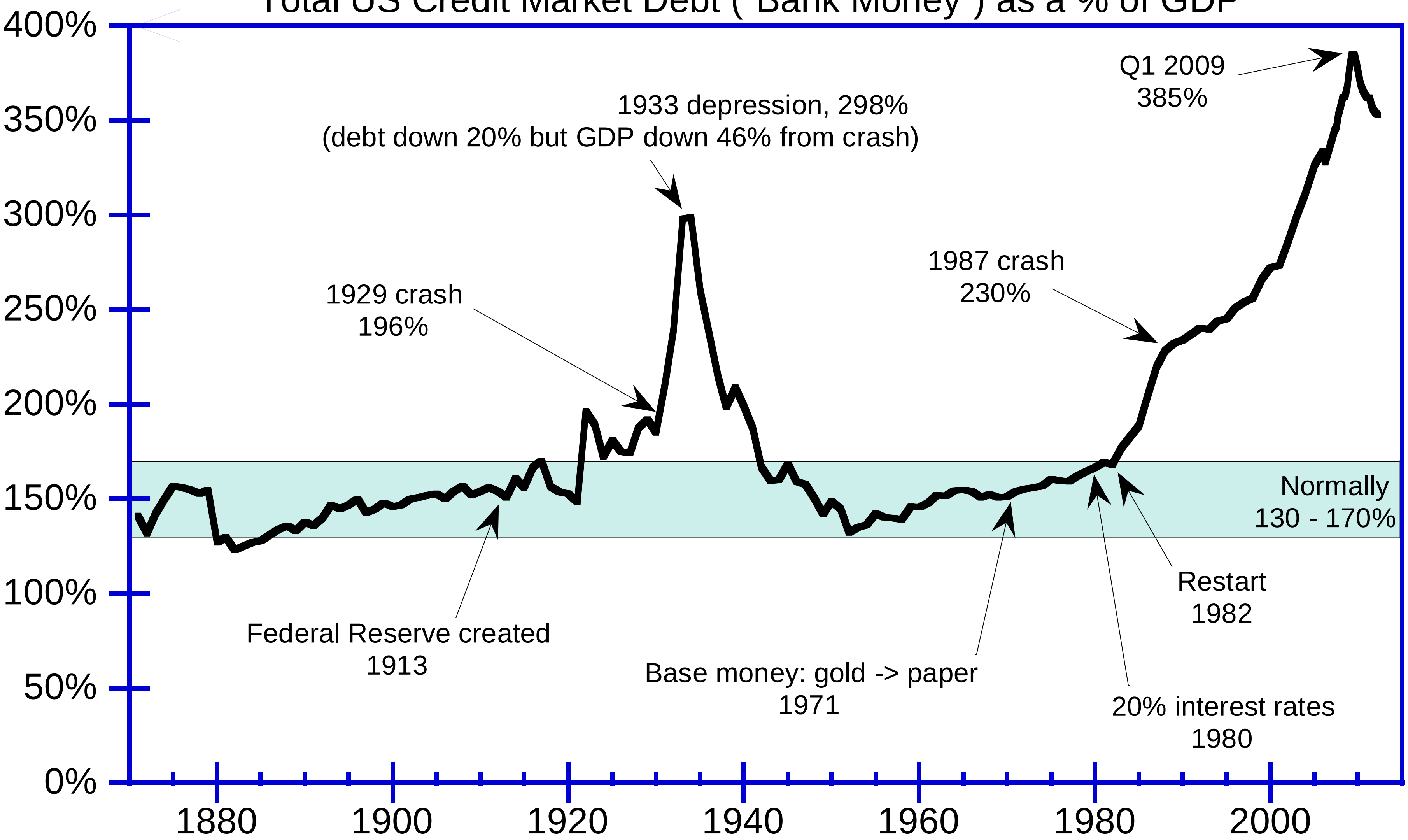
- Amount of money ≈ total debt (gov't + private)
- Size of economy ≈ GDP
- Size of bubble ≈ debt-To-GDP ratio

- *This is the financial story of our times…*

Debt-to-GDP Ratio

Total US Credit Market Debt ("Bank Money") as a % of GDP



Sources: Federal Reserve - Z1, US Census Bureau - Historical Statistics of the United States, Colonial Times to 1970. Data 1871 to end of Q1 2012. Data quality excellent from 1945.

Bubble Began To End in 2008

- World ran low on borrowing capacity:
  1. Not enough income to service more debt
     - Debt ≈ 400% of GDP
     - Interest rate ≈ 4%
     - So interest repayments are about 16% of GDP
  2. World running low on unencumbered collateral.

- Money manufacture in the private sector stalled in 2008→ Global Financial Crisis.

Governments Prolong the Bubble

2008 – 2011

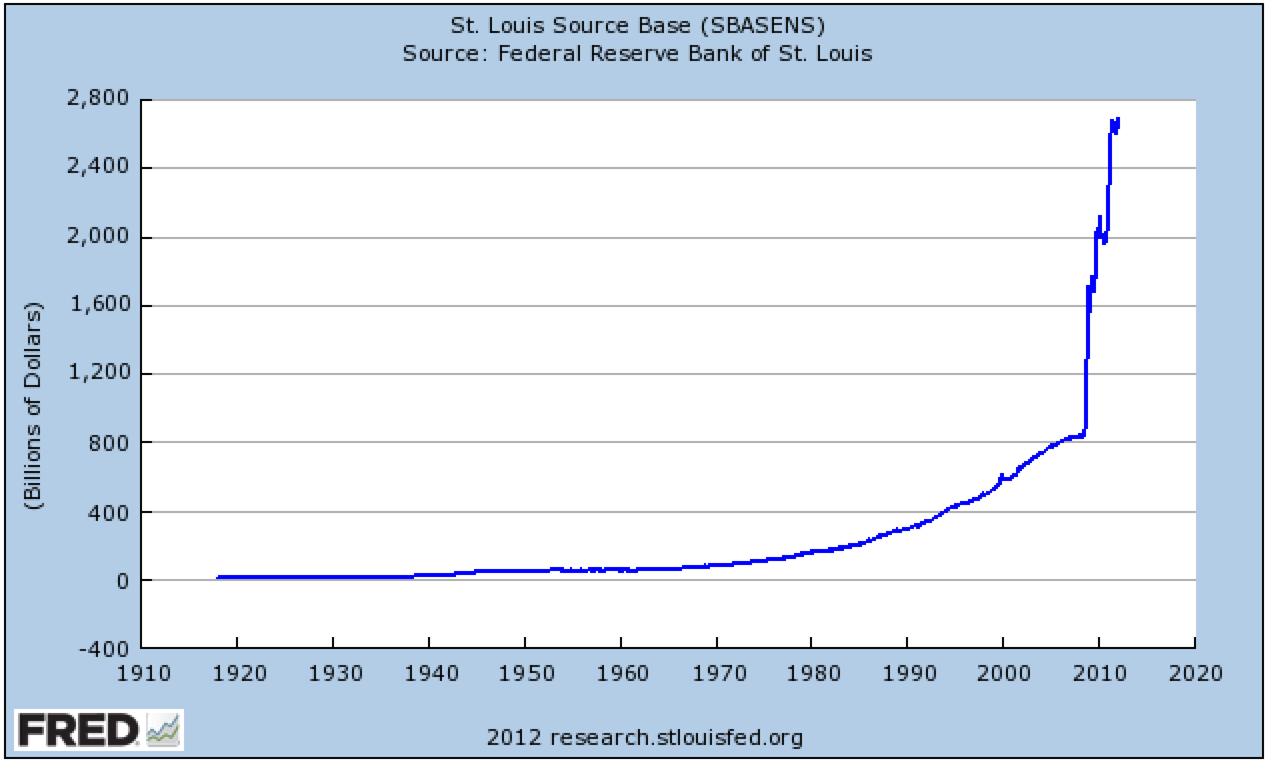
- Governments took up slack of money manufacture in 2008:
  - Borrowing
  - Some printing ("quantitative easing")
  - Lowered interest rates.

Now

- Most governments cannot borrow much more.
- Realization: private sector is debt-saturated, no return to pre-2008 "normal".
- Only option left for manufacturing money is… *government "printing"*.

?  ?

US Base Money Exploded in GFC

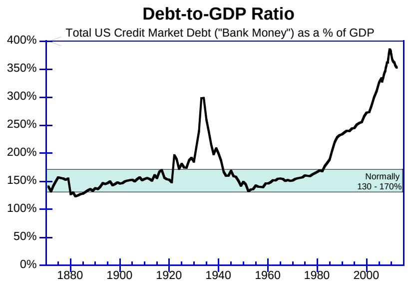


US Base Money, 1917 - 2012

- This won't necessarily lead to a large inflation.
- But this is the way a large inflation would start.

What if Money Supply Contracts?

- 1930's, but worse – debt-to-GDP ratio much higher, global.
- During the 25 years of bubble, extra money (= debt) increased GDP. *Like a credit card spree!*
- To return the debt-to-GDP ratio to normal, maybe a 15 – 25% fall in GDP.
- ***Double depression!***
- ***Politically unacceptable!!***



You spent it, now you gotta pay!

What Are Our Choices Now?

- Last year's debt has to be repaid *with interest*, so *every year the money supply must increase* or there will be widespread business and bank failures (like 1930).

- World at a fork:

or

Print and inflate

Widespread failures and deflation

Politicians Will Choose Inflation

Basic democratic calculus:

- Lenders: Few
- Borrowers: Many (vote, might riot).
- Powerful business interests: Need to repay their debts.

New York Occupy Demo

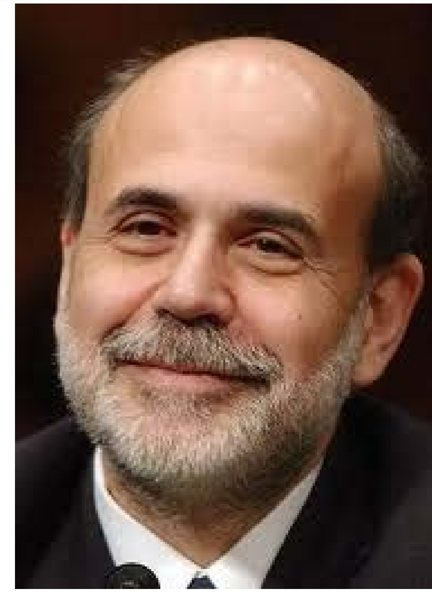
London


Greece

The Keynesian fog will be used to excuse this choice, to “reduce the people’s debt burden”.

Inflation is Coming

- Political system won't allow failures of big banks and corporations. TBTF.
- Bernanke won't allow 1930's deflation.
- Establishment economists already suggesting running mild inflation (6%) for a few years.
- Governments spending more than tax receipts.



Rogoff

Mankiw

3. Gold

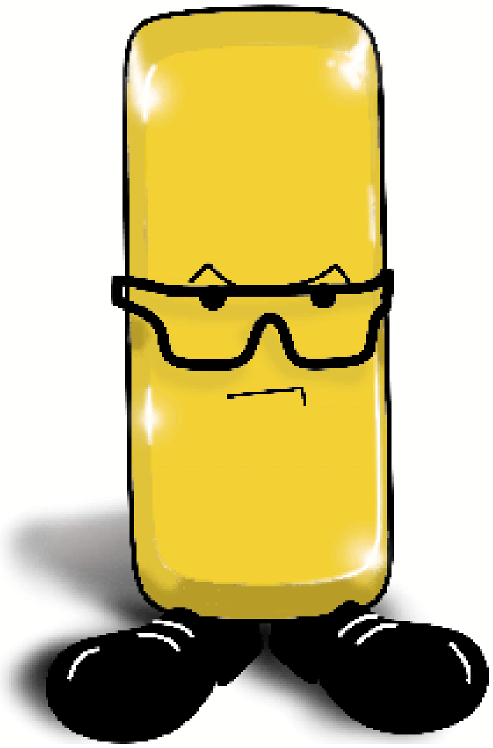
(and Silver)

Gold is Monetary

- Gold is a currency.
- It is the main non-government currency, evolved in the marketplace over 5,000 years.
- Gold was the world's base currency until 1971.
- Gold is still a reliable store of purchasing power.
- Gold is a superior form of cash that debases much more slowly than paper currency.

Gold Myths

- If you want shiny yellow stuff for jewelry, there are plenty of cheaper alternatives:
  - Jewelry is made of gold because gold is valuable
  - Gold is valuable because it is money.
- Gold is ***not*** a commodity like wheat or iron, because it does not get used up.
- Gold is ***not*** an investment that produces goods and services, like farms or factories, because it is just a medium of exchange, like cash.



Gold Enforces Honesty

- No one can print it.
- No one can make more without great effort.
- You have to earn it before you can spend it.
- You either have it or you don't.

VS

We wouldn't be in the current debt mess if our money system was still based on gold!

A Bet on Gold is a Bet for Political Interference

- Without political interference, the current debt bubble would collapse in a ***massive deflation.***
- Governments and banks will interfere to manufacture more money, and ***deliberately induce inflation*** to reduce the real value of the debt.

- Investors mainly fearful of deflation → inflation plays are cheap now.

Relative Currency Values

- As any currency trader knows, the long-term value of currencies is mainly determined by the relative rate of manufacture (debasement):
  - Aboveground gold: ***1% pa***
  - Paper currencies: ***12%+ pa since 1982***

12+% p.a.

1% p.a.

Gold in a Bubble?

- The reasons for gold to go up are intensifying, not going away.
- ***Big picture: Gold goes up forever against paper currencies***, at a rate roughly equal to the rate of debasement of paper money (on average).
- Gold price fell for 20 years to 2001 → some catch up in store.

Bubble, or Steady Rise Based on the Difference in Debasement Rates?

That's an amazingly straight line for any market! 21% per year.

Graph from Nick Laird at Sharelynx.com

What Ended the Last Gold Rise?

- Gold rose 20-fold 1968 – 1980, at 20% p.a.
- 20% interest rates in 1980.
- Sufficient to stop money manufacture and stop the inflation of the 1970's.
- No one can afford 20% interest rates today.

Paul Volcker
Fed Chairman 1979

Volcker's Fed elicited the strongest political attacks and most widespread protests in the history of the Federal Reserve (Wikipedia).

Gold as an Investment??

- Gold is a currency.
- Most of the time, gold is a lousy investment.
- Gold becomes a good investment only *when* the other currencies are failing, inflating, profligate, debasing, corrupt, ….
- This is one of those times.

Timing is everything

4. The Next 17 Years

The Economy

- Debt strangles the world economy. Moribund industries and zombie banks.
- Governments keep real interest rates low.

- ***High but tolerable inflation, a more intense version of the 1970s.***

Inflation? For how Long?

- *Reversion to the mean debt level:*
  - 350% of GDP → 150%
  - Reduction of 60%.
- *How much inflation is required?*
  - Start 2014.
  - 12% inflation, high but tolerable like the 1970's (modern CPI might only show 5-8%).
  - Interest rates of 6%

    (so real interest rate is negative 6%)
  - 14 years reduces original debts to 40% of original real value → **2028**

Inflation Ends ~2028

- Sign that inflation is ending?
- To end the inflation, governments must make a credible commitment to halting the rapid growth in the stock of money:
  - ***Raise interest rates*** sharply, to 15 - 20%.
  - ***Cut spending severely***, run surpluses

Price of Gold For next 15 Years

- Gold price will rise until interest rates rise rapidly to 15-20%, maybe around 2028.
- Until then … ***relax*** (ok, it will be ***volatile***).

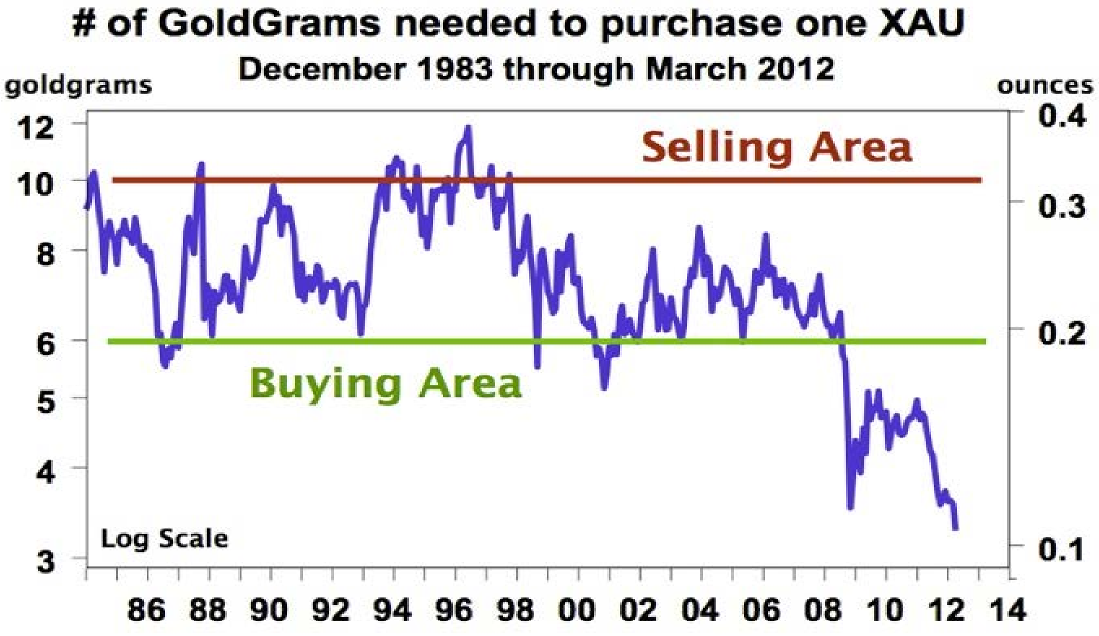
- Rate of gold price rise might be:
  - 11% pa for different rates of debasement
  - 5% pa for uncertainty over future of paper money
  - 5% pa catch up—for 20 years of falling gold prices
  - ***Total: 21% pa***
  - ***Average for last 10 years: 21% pa***

Gold Price Predictions

- Nominal prices in USD per ounce:
  - 1980: $ 850 $3,300 in today's money
  - 2001: $ 260 Start growth of 21% p.a.
  - 2012: $ 1,800
  - 2015: $ 3,800
  - 2020: $ 10,000 $4,600 in today's money
  - 2025: $ 25,000
  - 2028: $ 50,000 $8,400 in today's money

Gold Stocks Cheap Right Now

- Ratio of gold stock prices to gold price at 20 year low:



- Most investors afraid of 1930's deflation, not inflation.
- "Gold in a bubble" story widely believed.

Thank You

Articles and details at
sciencespeak.com