

# OPUNTIA

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### ALL THAT GLISTERS

by Dale Speirs

#### Introduction: Chancing Your Arm.

Governments around the world have been busy debasing their currencies, commonly said to be printing too much money, but in today's world more like adding electrons to a computer screen. As a result, a large number of people around the world are buying gold, silver, platinum, and palladium, collectively known as precious metals. Unlike fiat currencies such as the American dollar, the Canadian loonie, or the British pound, precious metals have no counterparty risk and are always worth something.

Counterparty risk means that someone promises to make good on something. In the case of governments this means they promise to maintain the value of their fiat currencies. In the case of Wall Street financiers, they promise that if you have \$100,000 on deposit, you can get it back as fiat currency. When governments default, the result is inflation. When Wall Street defaults, the result is toxic paper and bankruptcy. The insurance giant AIG had insured about \$1 trillion worth of mortgages as a counterparty, and when those mortgages turned into toxic paper, AIG had no way of paying off. The Panic of 2008 was the result of massive worldwide failure of counterparties.

Precious metals have been accepted by every human society for the last 5,000 years as needing no counterparty. The value in local fiat currency may fluctuate, but over the millennia one ounce of gold has usually bought a top-quality suit and shoes or at least 350 loaves of bread. Sometimes the ratio fluctuates, but as a long-term investment, precious metals will always provide at least some return. Thirty years ago, \$800 bought an ounce of gold, which later fell into the doldrums but still returned at least \$200+ during the hard times of the 1980s and now is rising again. \$800 worth of General Motors shares, a blue-chip stock in 1980, is now just so much worthless paper. At the height of the Panic of 2008, gold dipped briefly to the \$700 range as banksters had to sell everything they owned at any price to cover their debts. Once the initial short sales were over, gold came back up to the \$1,100+ range because investors everywhere recognized that it had no counterparty risk. Stocks are still below what they were.

**Thinking Outside The Safe-Deposit Box.**

It is easy to see why many people thinking ahead to their retirement a few decades from now are therefore buying precious metals to put away in a safe-deposit box. One guide for novices looking for advice on precious metals is PRECIOUS METALS INVESTING FOR DUMMIES by Paul Mladjenovic (2008, trade paperback).

As Mladjenovic explains, precious metals cannot be created at will by governments and are in scarce supply. Fiat currency can be churned out on printing presses in unlimited quantities, but it takes hard physical labour to dig and refine gold or silver. This assures bullion owners that their hoards of metal are worth something not only now but in the future. If every citizen of North America wanted to own gold or silver, the supply would only be an ounce or two per person. Dollar bills can become so plentiful that their value decreases because everyone has more than enough.

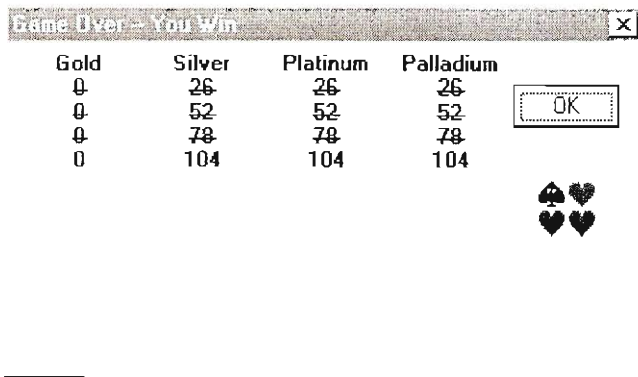
Precious metals have bounced up and down in dollar terms. There was a bull market (rising prices) in the 1970s after the USA went off the gold standard and allowed its citizens to own gold. In the long recession of the 1980s and 1990s, precious metal prices slumped during a decade-long bear market (falling prices), before turning around again in 1999. Mladjenovic doesn't discuss this because it is outside the scope of his book but the 1980s and 1990s were the last time we saw cheap everything. Oil and other commodities fell in price, wages fell behind inflation for North Americans, and interest rates gradually came down. It was fun while it lasted but as other countries such as China and Brazil industrialized, cheap commodities faded away and we now face peak everything.

## Can You Sleep At Night?

Mladjenovic then goes on to emphasize that before investing in precious metals you must have a plan and stick to it. Firstly, set out your goals in writing. Do you want to slowly build wealth through capital gains over many years, or make a quick profit by day trading? You must ask yourself what your risk tolerance is. There is long-term capital gains (the buy-and-hold strategy), the home run speculating (betting on metal prices), and store of value (which is what I am using). Mladjenovic classifies people as savers (low or no risk), investors (long-term gain), trading (in and out within a few hours or days), and speculators (bets that pay off or lose over several months or a few years but are not long-term investments).

I consider precious metals investing to be strictly physical metal in my safe-deposit box, but Mladjenovic, in common with most gold or silver bugs (fanatics about precious metals), also considers mining shares, options, futures contracts, HUI (an index fund of gold mining stocks), and ETFs (exchange traded funds, which are index funds that buy physical metal). He suggests 10% of a portfolio be in physical metal and 15% in mining stocks. The type of stocks depends on your nerve. Penny stocks of mine start-ups are for the gambler, and established miners for the conservative investor.

Investing, as I have found out with my oil portfolio, is almost a full-time job, reading up on the market and possible investments. One reason I only buy physical gold and silver and store it is because I have to devote considerable time to looking for private-equity conventional oil and mineral rights. Mladjenovic makes the point that one should specialize. He is a silver bug and actively trades it. I am a Peak Oiler (I don't think there is any such term as an oil bug) so I have to specialize as well, and buy gold as a long-term diversification that doesn't need any attention. If you want to day-trade gold, then you had better be prepared to devote the time to it. Actively investing in precious metals requires a commitment of time and energy.



For the vast majority of investors, precious metals mean gold and silver. Platinum and palladium do not have large markets with good liquidity as do gold and silver. Metals also not suitable are uranium (not for your sock drawer!), and rhodium (far too obscure for markets). Base metals are copper, zinc, nickel, aluminum, and iron. Gold, silver, and publicly-traded mining stocks have high liquidity, meaning they can be quickly and easily sold, as opposed to low-liquidity items such as real estate, which takes months to sell even in the best of times.

**Don't Bet The Farm.**

Mladjenovic spends a considerable amount of time on risk versus return, which are directly correlated. Low risk means low return, such as 2% interest on guaranteed term deposits. High returns come with high risk; a couple of years ago I owned GMAC bonds paying 10% interest but fortunately got out before General Motors collapsed. Precious metals are good hedges against inflation, currency crises, geopolitical hazards (war or natural disaster), and systemic risks (such as the Panic of 2008). Conversely, they have a physical risk (must be stored in a safe-deposit box), market risk (the price is down when you go to sell), exchange risk (commodity markets change the rules of trading), political risk (mines in unstable countries being nationalized), and fraud (salted mines such as Bre-X, Internet sales that fail to deliver, ETFs that don't own sufficient metals).

Risk also means staying the course and not panicking when prices drop. All commodity prices fluctuate, and one must learn to stick to a written plan. Those who bought gold in early 2008 near \$1,000, then sold in a panic late that year when it fell 30% to \$700, are now regretting it as gold comes back up to \$1,100 in 2009. Mladjenovic mentions the greatest difficulty he has with his clients is to prevent them from selling when the market is down and cashing out, instead of toughing it out and even buying more on the dips. As with all types of investments, one should not have more than 10% in a given type.

**Good As Gold.**

Mladjenovic devotes a chapter to gold. Up until 1974, gold was an awkward type of investment because many governments such as the USA prohibited its citizens from owning very much of it and also because they regulated the price. Contrary to popular belief, FDR did not ban gold completely; citizens were merely limited in how much they could own and what type (jewelry, \$100 of bullion, and numismatic coins). Mladjenovic doesn't mention one important thing about gold so I will. American oil production peaked in 1970 and within a couple of years the USA was a net importer of oil. This caused an outflow of American dollars to OPEC countries, who then brought them back to the USA and exchanged them for gold. (France also did a lot of this.)

American gold reserves began dwindling so fast that Richard Nixon had no choice but to take his country off the gold standard, and others soon followed suit. Today all currencies are fiat currencies, which are paper accepted by citizens only because the government requires it for payment of taxes and fees. Since 1974, gold has held its value better than stocks or bonds, contrary to the myth that it is a poor investment because it doesn't earn interest. Interest, as most people don't know, is not income but a compensation against inflation.

Governments don't like to publicize high inflation rates, so they usually insist on using indexes such as the CPI and the core inflation rate, neither of which represent reality but which are accepted by the sheeple and the mass media. The CPI is the Consumer Price Index, a basket of goods and services designed to represent average consumer spending. Because the CPI is used to index many pensions and wage settlements, it is deliberately adjusted to come in lower than actual inflation. Core inflation excludes food and energy, supposedly because they are too volatile to represent the true rate. This misses the whole point of the exercise, which is to get the true inflation rate. Unfortunately the mainstream media only report these to the general public because to enquire about the actual rate would force the reporters to do actual research. They don't have the time or the inclination, so the mass media simply parrot the government tallies. The official inflation rates in North America over the past few years

has been in the 2% or so range, but actual annual inflation has been 6% to 9% a year. Gold, oil, and other commodities have stayed ahead of true inflation over the past few years, while term deposits and bonds are far behind.

Worldwide gold production is roughly 2,500 tonnes per year, slowly increasing the world's supply at about 2% annually. About 10% to 15% is used in industrial purposes. The demand for investment gold has increased to the point that in 2006, for the first time in world history, private individuals owned more gold than governments and central banks. For decades, the gold bugs have been waging an unremitting struggle with the central banks, who would rather have people own fiat currency.

### **Next Year In Jerusalem, Or, The Silver Bugs.**

A silver boom, like fusion reactors and hydrogen-powered cars, always seems to be imminent but never quite arrives. It seems strange, and not only to silver bugs, because 40% of silver is used up in industrial production and is essentially unrecoverable. Photographic demand died out as the digital camera came in, but it is now touted for solar cells and as a bactericide. Historically it was widely used as currency but that use died out in the late 1960s as it became more scarce. Today the only silver coins minted are bullion coins, not circulating currency.

**The Others.**

Gold and silver are the most commonly traded precious metals, but there are other, rarer metals in that group. They are platinum, palladium, rhodium, osmium, ruthenium, and iridium. All are rarer than gold, but the latter four are so rare that no real trading market has developed. There is such a thing as being too rare; ask a bullion dealer for 100 ounces of rhodium for physical delivery and he'll laugh in your face. The entire group are in demand for industrial uses, and platinum is popular for jewelry. Rhodium trades at over \$6,000 an ounce when you can find it, but the others are less expensive.

Platinum (\$1,500+) and palladium (\$400 range) are the only two metals in this group that are accessible for the average investor. They are strongly correlated with industrial demand. Whereas gold futures contracts are 1,000 ounces each, platinum futures are for 50 ounces each and palladium futures for 100 ounces. These metals are extremely volatile in price, and Mladjenovic does not recommend them for novices or conservative investors.

**Glowing Returns.**

Mladjenovic has a chapter on uranium, which he tries to justify as a precious metal, unsuccessfully in my opinion. This is definitely not something you want to buy for the safe-deposit box.

The price of silver is volatile but always remains low enough that the average person can afford to buy several ounces of silver a week without owning an oil well. As with gold, physical silver is a recommended investment, and can be readily bought from retail dealers at market price plus a dealer's premium (usually 5% to 10%). Also as like gold, bullion coins are best because numismatic coins (collectibles that have an historical value) carry an additional premium that you will not get back in a rush sale.

Silver supplies have been slowly declining over the past decade at a faster rate than gold. This is what encourages the silver bugs, who believe that one day Real Soon Now, silver will become scarcer than gold. There are actually very few purpose-built silver mines in the world. About 80% of silver production comes as a by-product of gold or base-metal mines.

The amount of fraud in the silver market by Wall Street banks is breathtaking. It is estimated that they have short-sold five times more silver than is known to exist. The banksters also sell silver certificates supposedly redeemable for the metal on demand, but for which the known storage is nowhere near sufficient. As with all that toxic paper which caused the Panic of 2008, the banks are not worried about this. Like the derivatives scandal, they will shout "Too big to fail!" when silver prices spike and then appeal to central banks for help.

Concentrated uranium ore is called yellowcake. Although no new nuclear power plant has been built in North America in 40 years, other countries such as China are going ahead with them because they need electricity and to hell with the environmentalists. The problem is that uranium mines are losing production. The last great hope, the Cigar Lake mine in Saskatchewan, hit an underground stream and was flooded; production there is not anticipated before 2011. Uranium will be in the \$100 per pound range but is expected to increase in price over time.

Investing in uranium, for obvious reasons, is confined to paper proxies such as futures contracts, ETFs, and mining stocks. Uranium futures only began trading in May 2007 at 250 pounds of yellowcake per contract, and all settlements are in cash only unless you own a nuclear power plant. No taking delivery is allowed for ordinary investors, and if you complain, a couple of Men In Black will visit you for further discussion. Unlike gold or silver, whose prices are influenced by inflation or other economic changes, uranium prices are correlated with oil. Stocks of uranium mines advance with oil prices, since both are energy stocks. Established major producers are a good long-term investment, while junior explorers (mines not yet operational) are speculative. There are two uranium ETFs that track a mixture of mine stocks, suppliers and users in the nuclear industry, and the commodity itself. These are basically index mutual funds that provide a bit of diversity within the uranium industry.

## **Base Metals.**

Mladjenovic strays even further afield by adding a chapter on base metals. Base metals and precious metals commonly occur together in varying proportions, and no mine in the world only ever produces just one metal. Gold mines produce silver and copper as a byproduct, copper mines produce silver and nickel as a byproduct, and so forth. Base metals are essential for industry and commerce, and so their prices are tied directly to general economic activity and not inflation as with precious metals. Base metal prices are extremely volatile, so Mladjenovic does not recommend futures contracts. Mining stocks of established players are good long-term investments. Mutual funds and ETFs that specialize in base metals can be counted on the fingers of one hand.

## **Let's Get Physical.**

In Part 2 of this book, Mladjenovic discusses the how of metals investment, starting with buying the physical metal and taking actual possession of it. There is no counterparty risk in owning physical metals and having them in your safe-deposit box or a secret hiding place in your basement. Bullion coins and bars are purchased for their metal content, not for any numismatic (collectible) value.

They are measured in troy ounces for historical reasons, which weigh about 31.1 grammes or slightly more than the avoirdupois ounce used by Americans. To buy a coin or bar involves paying a premium over the actual metal price for the cost of fabrication and the dealer's handling and profit margin. To sell a coin or bar involves a slight discount, again for the dealer's profit margin.

Many people are confused about what constitutes physical ownership. Silver certificates, warehouse receipts, and ETFs are not ownership of the actual metal. They are ownership of a piece of paper that says the counterparty (broker, depository owner) has some precious metals reserved in your name. You have to take them at their word, and hope they have enough metal to honour all the paper if everyone tries to redeem it at once. At least the central banks of the world are honest enough to admit their fiat currencies are only paper with no redemption value.

Gold or silver coins bought as numismatic collectible items are usually worth far more than their metal content. Coin collectors are interested in the history behind the coins and their scarcity, as opposed to bullion coins which are continuously minted. Platinum and palladium coins and bars are difficult to find, whether as bullion or as a numismatic collectible. You would not, of course, expect to have possession of copper or nickel in bullion form; the base metals are physically delivered by the tonne.



Gold coins are usually bought as 1-ounce coins, although they can be had in half-ounce or smaller sizes. The dealer's premium on bullion coins is an absolute amount which is the same for all sizes, meaning that the percentage premium is higher for the smaller sizes. Thus it is better to stick to 1-ounce or higher coins. Assuming the 1-ounce size, the major mints of the world that sell



gold coins will guarantee one ounce of gold in them but the purity may vary. Pure gold is soft and malleable, easily scratched, and only suitable for putting away in a safe-deposit box. These coins are 99.99% gold, such as the Canadian Maple Leaf and the American Buffalo coins. Others have one ounce of gold in them but have silver or copper alloyed into them for hardness, which means the coin weighs more than one ounce. Examples are the American Eagle and the South African Krugerrand, both of which are 92% purity.

Gold bars are not really suitable for the average person. The standard 400-ounce bar, known as a London Good Delivery bar, weighs roughly 13 kg, not something you can casually slip into your briefcase. Mladjenovic doesn't mention it but gold bars have some other problems. Firstly, if you want to cash one in, the dealer will probably charge an assay fee, whereas bullion coins are accepted on sight. Secondly, the amounts are large enough that the money you get must be reported by the dealer to your friendly taxman. Thirdly, you may only need a bit of money at a time. Coins can be cashed in one at a time (without reporting requirements) to get you by for a week or a month, depending on how much a spendthrift you are. At late-2009 prices, cashing in a London Good Delivery bar will get you about US\$450,000, which is fine if you are buying a house, but a bit awkward if all you need is to pay for a new transmission in your car.

Silver is available in the same types of bullion coins as gold, but comes in other forms as well. Many private mints produce what are called 1-ounce rounds, which are .999 pure. Because the coinage of the world used to have silver in them until 1965, one can also buy junk bags. These are bags of old silver coins sold by weight, or if only containing one type of coin, by the thousand. These are worn-out circulated coins that have no numismatic value and are 40% or so purity. Personally I can't see the point in bags; they may as well be smelted, separated out into pure silver, and sold as respectable bullion coins.

Silver bars come in 1,000, 100, and 10 ounce sizes. The 1,000-ounce size is too big and heavy for the average investor, weighing about 31 kg, and normally used by brokers and banks to settle accounts. The average investor will deal in 100 and 10 ounce sizes, which are also easier to fit into a safe-deposit box.

Platinum and palladium coins and bars are rarely in stock with most dealers. You can sell them readily enough but may have to go on a waiting list to buy them.

Mladjenovic devotes a chapter to numismatic precious metal coins. Many national mints sell commemorative bullion coins but these are way overpriced and few can be resold for anything more than their metal content.

If you are a numismatist then you can collect them the same way you might collect postage stamps or baseball cards. Older precious metal coins sell for far more than their bullion content because of their collectible value. A 1933 American gold Double Eagle sold in 2002 for \$7.5 million. It takes more time and effort to collect as a numismatist, as you must learn about rarity, history, and grading, whereas a gold bug putting Maple Leafs into a safe-deposit box only needs to look up the current price for gold. Numismatic coins have low liquidity and are not as easy to sell. Dealer buy prices are considerably lower than retail prices, which means you have to buy and hold for a long time if you want a good profit. Collect for the fun of it, not as a get-rich plan.



### Paper Bullion.

Mladjenovic then moves on to mining stocks, commonly invested in as a proxy to precious metals. He reviews stock investing in general, and makes the point that often a company's share price is tied more to its industry than the actual company itself. The usual rules apply to buying mine stocks, such as profitability, debt load, assets, price-to-earnings ratio (safer below 15:1), and year-over-year results. Research is important, such as provable reserves, management expertise, and financing. Political stability of the country where the mine is located is important because the assets can't be removed if a generalissimo decides to nationalize them. Mines are politically safe in Canada or Australia, but now is not the time to invest in a Venezuelan or Russian mine.

Diversity in mining stocks doesn't mean investing in a bunch of companies at random. It depends on the investor's plan; conservative, growth, or speculative, or a mixture of all three in a pre-defined proportion. Mining companies are classified as the majors, development companies, and exploratory companies. The majors are large corporations that are already producing steadily. Development companies are mid-sized mines that are in the process of starting up production on proven reserves. Exploratory companies are the penny stocks that may go to \$500 if they hit the mother lode or may leave you with scrap paper if they run out of money without finding any prospects.

Mining stocks are traded in by many gold and silver bugs because the share price tends to increase faster than the price of the metal being mined. This is good for capital gains. The major risk is that the company runs out of money before the mine begins production. They may then declare bankruptcy, or be forced to issue more shares, which dilutes your holdings.

Hedging by mines is a dangerous practice for both mines and investors. This is when a mine sells part of its future production in advance for a fixed price. If metal prices go down, the mine wins by locking in a higher price on the futures contract. If prices go up, and so does inflation, the mine can end up producing at a loss. Mladjenovic recommends investing in unhedged mines.

Most mining companies do not pay dividends on their stocks, and investors generally expect to only profit by capital gains on rising share prices. There are other ways of betting on mines. Warrants are the right but not the obligation to buy a stock at a specific price during the life of the warrant, which can be up to five years or more. After the time limit, they expire and become worthless. It costs a few dollars to buy a warrant, but they can be sold at a profit to someone else who wants to buy the stock. Sometimes the warrant is included as part of a unit. I don't own any mining shares, but as an example from my oil investments I have bought private-equity units (that is, they are not publicly traded on a stock exchange) which for \$X include in each unit one common share,

one preferred share (which pays a dividend), and one warrant to buy into the next share offering at a discount. Warrants are derivatives, but not the toxic kind that caused the Panic of 2008. Technically they have a degree of risk, but I've never been disappointed in the petroleum ones. There is no standard type of unit offering or warrant; each issue usually has some different aspect depending on what the company wants to do with the money.

For the insecure investor, there are mutual funds that specialize in precious metals, and some only in one metal such as gold. Mladjenovic goes into detail about them, then segues into ETFs. Mutual funds are actively managed funds but ETFs are index funds that buy a set ratio and type of investments and holds on to them. The price of the ETF share is then equal to the price of the underlying assets (gold, mine shares) less a commission.

Mladjenovic also devotes a chapter to futures contracts, which are extremely volatile and high risk. They are commonly bought on margin, which means that only 20% or so of the purchase price has to be put up in cash. If the metal price goes up, your profits increase geometrically, but so do your losses if the price declines. Futures are legal obligations, which means that even if the price falls you are still liable for the original purchase price. About 80% of speculators lose money betting on futures.

It is far better to take your money to a casino where at least you get free drinks and a floor show while losing it. I've never touched futures contracts and don't intend doing so. They are pure gambling, not investing.

Options are derivative contracts about which Mladjenovic is quite enthusiastic, although he is honest enough to state that they are not investments but pure speculation. There are two types, call and put. A call option is the right but not obligation to buy a stock at a specific price before a specific date. It is the same as a warrant except that the latter are issued by the mining company and the former are issued by a shareholder betting against you on the share price. If the share price goes up, you call for the option and buy the share at a profit. If the price goes down, the call option expires worthless and you lost the few dollars that you paid for the option while the shareholder picks up a couple of bucks for no work at all. The opposite of a call option is a put option, the right to sell shares at a lower price, that is, to short-sell the shares. Mladjenovic goes into excruciating detail on playing options as a speculation, but this is off the topic of investing. Since he deals in options, his enthusiasm is understandable, but they are not the precious metals themselves.

From there, he strays further afield to day trading, which is pretty much akin to blackjack or poker in that everyone fancies themselves a good player but only a few people will make money

at it. He recommends that anyone doing this should stick to one type of metal and one type of paper (stocks, futures, call options, etcetera). He also goes into depth on how to select a broker to do your trades, what the jargon of day trading means, and the hazards of buying or selling on margin.

**Decisions, Decisions, Decisions.**

Investors and speculators alike use one of two methods of deciding what to buy, fundamentals and technical. Fundamental analysis, which I use, is to study the economics and geopolitical basics of a metal, such as supply and demand statistics, politics, current events likely to influence gold prices, money supply and central bank behaviour, and mine operations. This is for long-term investors (my case), and day-to-day fluctuations in gold prices are of no concern. If I am buying for twenty years from now, a \$20 bounce or decline in tomorrow's price is meaningless to me, although it could make a fortune for a day trader or, more likely, break him.

Fundamentals are the basic facts on how a mine operates. Read the biographies of the mine's management; do they have practical experience running a mine or are they just desk jockeys? How much financing do they have in hand to help them over the rough spots? What are their mineral reserves? How stable is the country in which the mine is located?

Technical analysis is for short-term trading, seldom more than a few months and usually just a few days. It involves graphing all sorts of variables on charts, looking for trends, calculating moving averages, drawing lines of resistance or support, and looking only at short-term prices with little interest in fundamentals. It works best for day trading or speculating on industry-wide index funds (rather than a single metal or mine). Mladjenovic explains all the jargon and shows the types of charts that technical traders use.

Politics and government intervention cannot be ignored while investing in precious metals. The current bull market for gold is being helped along by the possibility of a trade war between the USA and its largest creditor China. China could destroy the American dollar in a day by dumping their holdings all at once, and gold would immediately spike well past \$2,000. Conversely, if the USA keeps churning out trillions of fiat dollars and they finally work their way into the system, double-digit inflation will also trigger a run to gold.

Central banks and governments don't like the idea of citizens abandoning their fiat currency and government bonds for gold and silver. In the past, calculated actions have been taken to suppress the price of gold by selling off central bank supplies, but over the past decade it has become more difficult to keep the price down except for brief spurts. Too many people own gold now.

## LETTERS TO THE EDITOR

[Editor's remarks in square brackets.]

FROM: Franz Zrilich  
4004 Granger Road  
Medina, Ohio 44256-8602

2009-09-23

[Re: review of the book OIL 101] The key to increasing annual oil production would be dramatically improved extraction of stranded oil by somehow pulling and pushing it in the ground. You could divert Calgary's stranded sour gas through a long pipeline to twenty miles downwind.

[Pressurizing oil fields and fracturing the strata to remove some more stranded oil only works up to a point. There will always be oil too tightly held to the sediment particles and it is impossible to fracture every single pore open in a layer of rock. Also pumps do not suck oil out of the rock, they only pump the oil that flows into the borehole. Extracting sour gas from under Calgary would require drilling dozens of 100 km-long horizontal lines to get it far enough away from the city. That technology does not exist.]

An idea is cracking oil in the ground, which would be publicly acceptable, and piping market-ready gasoline, diesel, etc, to market, as well as weeding the impurities such as sulphur and vanadium.

[Fractionating crude oil into individual substances can only be done in aboveground towers. Sulphur is extracted for fertilizer here in Alberta. Just north of Calgary is a large sulphur plant and we can tell the state of the fertilizer industry by the size of the sulphur stockpile. The taller the pile, the worse the market. Vanadium is a valuable alloy for metals.]

Speaking of supertankers, near Singapore is a harbour in which rest tankers and container ships at anchor because there are no demands for their services. It would be a good background for a John Clancy or Clive Cussler novel.

The International Monetary Fund has said they will sell some of their gold reserves. I have no idea as to what the real story is.

[China offered to buy all 403 tonnes of gold the IMF wants to sell, as the former tries to reduce its US\$ reserves and the latter tries to stay out of bankruptcy. India surprised everyone by buying 200 tonnes of that gold in November 2009. During the 1980s and 1990s, the central banks and the IMF regularly flooded the market with gold to suppress the price. Unfortunately they are running out of gold and can't do it anymore, plus since 2006 the majority of the world's gold is now owned by private individuals. The central banks don't like to see a high price for gold because it demonstrates to the general public how much their fiat currencies have depreciated.]

FROM: Lloyd Penney  
1706 - 24 Eva Road  
Etobicoke, Ontario M9C 2B2

2009-11-11

[Re: alternative history] I really don't like military AH, and it looks like most of the stories within fit in that category. I know many of history's turning points centre on military events, but I'm picky, I want non-military AH stories.

[Re: Peak Oil] The insanities of running our economic engines, no matter what the lubricants are. No wonder so many turn away from it as best as they can. The end of it all is in sight; once the oil goes below a set level of production and fails to meet demand, our society will grind to a halt and fail. I doubt I'll be around to see it, and that thought is somehow comforting. I have trouble imagining what life will be like several generations from now.

[I don't believe in a fall-off-the-cliff scenario as do many tin-foil-hat survivalists, but rather a ratcheting downward with each generation. There will always be some type of oil replacement but it will be expensive and future generations will revert back to living as did our grandparents. There was a time when people lived in town or around public transit stations, not in distant suburbs accessible only with cars. There was a time when most kids walked to school instead of getting a ride in Mom's SUV.]

There was a time when long-distance travel was expensive and people vacationed near home instead of two weeks in Hawaii every winter. There was a time when local market gardens supplied the grocery stores and in the winter everyone ate a lot of root crops. Those times will return.]

FROM: Christopher Carson  
Box 1035  
Fort Worth, Texas 76101

2009-11-25

It is generally necessary to begin any discussion involving hard money with the caution that gold and silver are not wealth, or rather only a small part of it. The wealth of a country is composed of grain in the fields, mine workings and minerals, factories and finished goods, and railways and highways. In short, the whole apparatus of production and the stock of its products. The wheat fields of Manitoba have contributed far more to the prosperity of the world than the gold fields of Yukon.

Gold, however, is scarce and costly to produce. As it is also eminently portable, indefinitely divisible, and practically imperishable, it makes an excellent solution to the problem of coincidence of wants in trade. This function as a medium of exchange makes it useful and helps make it universally desirable, and leads to it serving as a measure of value and a store of wealth.

As a result of these latter two functions, it becomes natural to estimate wealth in terms of an equivalent gold value. People are often led to suppose that gold is wealth itself, rather than the lubricant which moves wealth around, and thence by degrees into the delusion that a country which has much gold and little of the necessities of life is better off than one which has little gold but much else.

The use of gold as a store of value tends to remove it from circulation, impeding the course of trade. The function of fractional-reserve banking [Editor: banks lending out ten times more money than they have deposits or capital] may be considered as economizing the use of gold. What can never be sound is zero-reserve banking. At least in the USA for decades now, banks have not been obliged to hold any sum whatsoever of lawful money against most classes of deposits. As a result, most of the bank credit in circulation has been dependent upon prompt repayment of loans. When the banks held substantial positions in the least liquid categories of assets, as with land or railroad bonds, it became inevitable that a liquidity crisis should result.

Ultimately we must abandon Keynesian economics [Editor: government spending to counteract a recession], with its favouring of consumption over saving, providing the appearance of prosperity in the short term at the expense of investment which alone can ensure long-term prosperity.

We must reduce government expenditures below revenues, with repayment of debt, and, perhaps most difficult, lower the overall level of commerce. This last is crucial to sustainability in both the economic and environmental senses. That it is possible to have more prosperity with less economic activity in general will be a hard sell. Sanity in economic matters is, sadly, not something to which we of today are much accustomed.

[As to your penultimate sentence, Peak Oil is already forcing the start of such changes. It will be a gradual ratcheting down process over the next few generations, with much crying and chest-thumping at the loss of inalienable rights to live in a distant suburb with no public transit, own a large-screen TV, and commute to work in an SUV. Watermelons and kiwi fruit will not be had out of season. \$5 per litre gasoline will impose discipline on the populace that lectures cannot. In short, we will go back to living the way our ancestors did before WW2.]

**I Also Heard From:** Sheryl Birkhead, John Held Jr, Anna Banana, Kris Mininger, Ross Priddle, Mike Dickau, Ned Brooks, Mark Strickert

noticed by Dale Speirs

Evans, C.A., et al (2009) **Extensive bacterial diversity indicates the potential operation of a dynamic micro-ecology within domestic rainwater storage systems.** SCIENCE OF THE TOTAL ENVIRONMENT 407:5206-5215

*"The concept that domestic rainwater storage tanks may host sustainable microbial ecosystems has not previously been addressed. Cultivated isolates were found to comprise members of four major bacterial divisions; Proteobacteria, Firmicutes, Actinobacteria and Bacteroidetes, including more than 200 species from 80 different genera. Although Proteobacteria from  $\alpha$ ,  $\beta$  and ? sub-classes were dominant, a set of core taxa comprising representative genera from all four phyla could be identified. Coliform and other species specifically associated with faecal material comprised < 15% of the species identified, and represented < 1.5% of total average abundance."*

Speirs: In other words, people who save downspout rainwater in barrels had best not use it for drinking, bathing, or washing freshly harvested produce from the garden. It has long been known that rain is not clean water because it washes out dust and aerosolic chemicals from the atmosphere that may have been carried on the wind from the other side of the planet.