# Real asset diversification in fiat money, fiat government era

The case for investable, scarce real assets in today's political economy; S&P 500: 1,973.63 (7/21/14)

## July 2014

**Real asset correlations to generic bonds and stocks; correlations of 0.30 or less indicate differing historical price development**

| | Number of quarters | Gold | ILBs | High dividend yield stocks | Infrastructure | Alternative energy | Oil | Coal | Grains | Farmland | Timberland | Water | Cash | Global govt bonds | US corporate bonds | Global equities |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| London Fix Gold PM PR USD (gold) | 178 | 1.00 | | | | | | | | | | | | | | |
| BarCap US Govt Infln Lkd TR USD (ILBs) | 61 | 0.17 | 1.00 | | | | | | | | | | | | | |
| Zacks Yld CHF Hog USD /(high div yield stocks) | 23 | -0.04 | -0.03 | 1.00 | | | | | | | | | | | | |
| S&P Global Infrastructure TR USD (infrastructure) | 42 | 0.11 | -0.03 | 0.86 | 1.00 | | | | | | | | | | | |
| Ardour Global Composite TR USD (alternative energy) | 50 | 0.09 | -0.20 | 0.71 | 0.81 | 1.00 | | | | | | | | | | |
| S&P GSCI Crude Oil Spot (oil) | 106 | 0.34 | 0.13 | 0.62 | 0.43 | 0.41 | 1.00 | | | | | | | | | |
| HSBC Global Coal Mining PR (coal) | 106 | 0.07 | -0.09 | 0.63 | 0.71 | 0.54 | 0.36 | 1.00 | | | | | | | | |
| DJ UBS Grains TR USD (grains) | 86 | 0.21 | 0.23 | 0.26 | 0.36 | 0.30 | 0.10 | 0.21 | 1.00 | | | | | | | |
| NCREIF Farmland (farmland) | 77 | 0.17 | -0.22 | -0.28 | 0.06 | 0.04 | -0.18 | 0.04 | 0.13 | 1.00 | | | | | | |
| NCREIF Timberland (timberland) | 101 | 0.01 | -0.02 | -0.36 | 0.03 | 0.05 | -0.10 | -0.13 | 0.06 | 0.39 | 1.00 | | | | | |
| MSCI World/Water Utilities GR USD (water) | 70 | 0.07 | -0.01 | 0.57 | 0.60 | 0.33 | -0.04 | 0.23 | 0.12 | 0.21 | 0.11 | 1.00 | | | | |
| Citi USD EuroDep 3 Mon USD (cash) | 138 | -0.06 | -0.10 | -0.31 | 0.00 | 0.12 | -0.04 | -0.09 | -0.03 | 0.02 | 0.40 | -0.02 | 1.00 | | | |
| Citi WGBI USD (global government bonds) | 110 | 0.26 | 0.36 | -0.04 | 0.20 | -0.16 | -0.08 | -0.17 | 0.09 | 0.02 | 0.07 | 0.17 | 0.13 | 1.00 | | |
| BarCap US Interm Credit TR USD (US corporate bonds) | 158 | 0.08 | 0.55 | 0.50 | 0.41 | 0.00 | -0.09 | 0.02 | 0.09 | -0.05 | 0.04 | 0.17 | 0.18 | 0.62 | 1.00 | |
| MSCI AC World GR USD (global equities) | 98 | -0.03 | -0.29 | 0.91 | 0.93 | 0.77 | -0.02 | 0.49 | 0.23 | 0.12 | 0.05 | 0.27 | -0.02 | 0.06 | 0.15 | 1.00 |

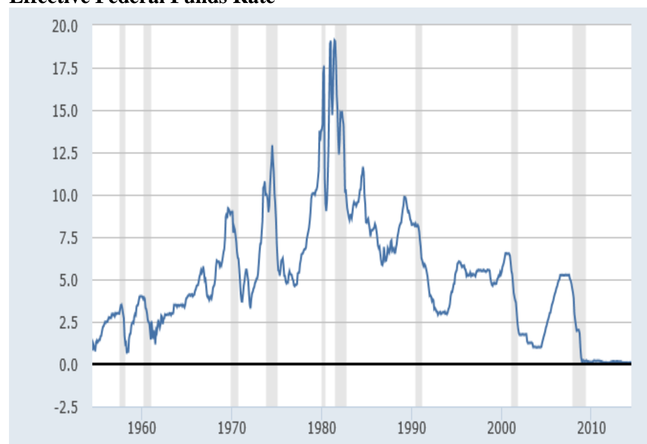
Grey block: correlation of so-called "traditional assets" (cash, Treasuries, corporate bonds, and stocks) vs. real assets & ILBs through 12/2013 Sources: Ibbotson/Morningstar

### Correlations amidst unchartered monetary policy:

Historically, as can be attested to by the chart immediately above, physical gold (real money, historically speaking) and scarce real assets such as oil, coal, grains, farmland, timberland, and water tend to have low to inverse correlations with so-called "traditional assets" cash, government bonds, corporate bonds, and equities. As such, integration of real assets ought to help reduce portfolio valuation fluctuations or portfolio volatility. As (downside) volatility is either considered highly undesirable or, along MPT lines, the equivalent of risk, surely satellite integration of such assets into portfolios bodes well for both reduced portfolio fluctuations and lowered MPT-defined risk.

But wait; investors have been witnessing rising correlations between numerous asset classes and simultaneous "multi-asset" bull or bear markets (have the latter become central bank instigated "black swans?"). The probable culprit: central bank-engineered asset valuation bubbles thanks to peerless global QE (overleaf) and "ZIRP," a widespread zero interest rate policy lacking any precedent:

**Effective Federal Funds Rate**




http://research.stlouisfed.org/fred2/series/FEDFUNDS

Combined, the "ZIRP-QE policy" has constituted the Fed's (and to a waxing degree, other leading central banks') asset valuation put. The result: serial financial bubbles and massive extension of debt and leverage across the US and other large OECD economies. The mechanisms: central bank-based government/agency bond purchases, TARPs, TWISTs, LRTOs, negative interest rates, and other taxpayer-defrauding, misallocating, productivity-eviscerating, inflation-inducing, free enterprise-stifling, debt-enabling, and currency-debasing policies. ZIRP and interest rate pegging have given central banks control of the single most important price in all of capitalism, namely the cost of short-term money used to fund speculation and allocations in financial markets.

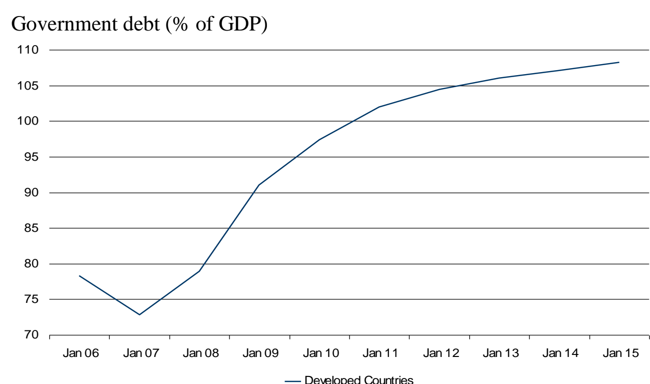
Central banks' assertions that this drastic pre-emption of the free market-based cost of funds on the one hand and "valuation determining" asset demand (QE) on the other hand will have no impact on the vitality of the economy, on the behavior of traders and investors, on asset prices, on allocations, and on asset class correlations is akin to stating that the economy is irresponsive to "central planning," that there are no bubbles, and that price of money doesn't matter. Subsidized speculators/borrowers as well as free market participants in a moribund economy could beg to differ, and potentially stoutly so:

> "A central bank which aims to improve on the 'performance' of the macro-economy is the enemy of the free market. In order to manipulate and target economic outcomes like GDP, jobs, housing starts, consumer spending, and capital investment, an activist central bank must perforce destroy the financial markets which are at the heart of capitalism.
>
> And 'destroy' is not too strong a term because at the end of the day there are only two options. On the one hand, the monetary politburo in the Eccles Building can set the price of money, debt, the treasury yield curve, and the host of financial assets which are valued with reference to them. In the alternative, they are the spontaneous result of 'price discovery,' in which millions of traders, investors, and speculators find market clearing prices for financial assets and instruments -- even ones that are not pleasing to PhD economists promising unicorns and unwavering prosperity.

> If honest 'price discovery' was actually functioning, the stock market would not be at nosebleed heights, capitalizing hockey sticks that never materialize. Instead, it would be discounting a badly impaired economy that is stuck in a sub-2% rebound—and one that is dangerously at risk owing to the third and greatest financial bubble the Fed has created during this century." (http://davidstockmanscontracorner.com/)

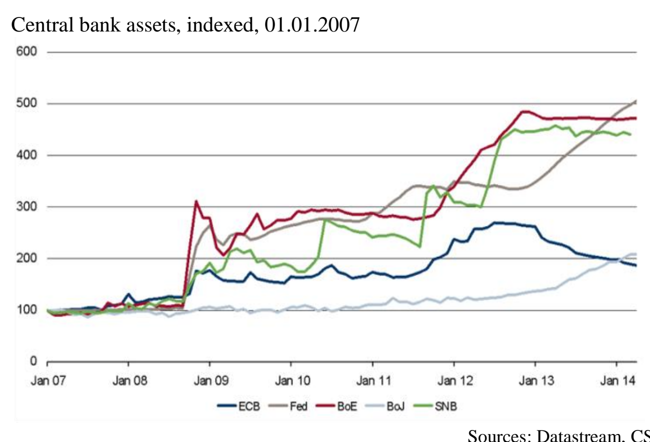
What's our point? The artificial, central bank-induced variance (dispersion) compression is increasing correlations to a degree not captured by the historical chart above. Meanwhile, financial repression/yield starvation *is* causing asset valuation bubbles in bonds and stocks alike and horrific fiscal imbalances to boot (please see below). The laws of finance and economics suggest that globally interventionist, central bank QE policies (please see below) are unsustainable.

Government debt (% of GDP)




Sources: IMF, CS

Central bank assets, indexed, 01.01.2007




Sources: Datastream, CS

Said differently, these policies threaten the functioning of free market capitalism and the very fiat currencies that they are purportedly trying to save. Historically, fiat currencies have lasted roughly four decades, on average. (http://georgewashington2.blogspot.ch/2011/08/average-life-expectancy-for-fiat.html)

As regards our global central bank balance sheet progression, the foundation for today's unchartered monetary base bloat reaches back to the termination of the Bretton Woods dollar gold standard nearly 43 years ago:

> "The final break with gold was dramatic and, as much as any other development of the monetary system, can almost be entirely attributable to the action of one man, the President of the US, Richard M. Nixon. *It was Nixon's decision in August 1971 which substantially altered the course of monetary history and inaugurated a period, for the first time in 2,500 years, in which gold was effectively demonetized in most of what had been understood to be the Western world.*" Source: 'War and Gold: A Five-Hundred-Year History of Empires, Adventures, and Debt by Kwasi Kwarteng' (Italics this author's.)

## Why scarce real assets in "ZIRP/QE landscape?"

History strongly implies that central banks will not be able to durably distort asset prices or asset correlations. Upshot: asset correlations are likely to revert or overshoot, if behavioral finance and experience are any guides, the historical correlation norms displayed above. Plus, the flagrant ZIRP and QE-enabled misallocations -- government-induced "overinvestment" in consumption, redistributionism, debt-funded Blue Chip stock buybacks instead of cap ex (http://davidstockmanscontracorner.com/the-implosion-is-near-signs-of-the-bubbles-last-days/; http://davidstockmanscontracorner.com/1-5-million-per-scalp-at-microsoft-another-folly-of-monetary-central-planning/), and crony-capitalist agendas contradicted by underinvestment in free market enterprises bludgeoned by a growth inhibiting public policy stew in regulatory, tax, and rule of law realms -- should eventually result in shortages in key sectors, including energy and food. Central bank policy also threatens to fan inflation and to worsen real income erosion (http://research.stlouisfed.org/fred2/series/MEHOINUSA672N) for the vast majority of citizens, the less than flattering legacies of centrally-planned economies over time; witness the accelerating "noncore" food and energy inflation of recent years, weak global economy notwithstanding, for a preview of prospective coming "inflationary attractions."

Speaking of legacies, the recently released preliminary BLS tally of multifactor productivity (MFP) growth of only 0.3% in 2013 (restatement to 0.0% possible) is the smallest increase since a 0.3% decline in 2009 and is indicative of lingering misallocations, increasing inefficiencies, and rising inflationary pressures facing the economy (http://www.bls.gov/news.release/prod3.nr0.htm). Plummeting MFP (also known as "total factor productivity") growth in the face of real GDP growth is also known as the cost of consuming the feedstock. Rising consumption of feedstocks -- an unsustainable drawdown and/or less efficient harnessing of available energy resources -- to propel real GDP growth in place of healthy productivity gains limits real GDP growth. It also negatively impacts real income. Based on a 2011 report by the Hamilton Institute, and adjusting for data since 2009, had MFP continued growing at the pre-1973 trend of 1.9% pa, and had that productivity gain been reflected in workers' compensation, US compensation would be 55% higher than it is today. (http://www.brookings.edu/~/media/research/files/papers/2011/8/innovation%20greenstone%20looney/08_innovation_greenstone_looney.pdf)

Decades of weak or weakening multifactor productivity growth in the US, which is also borne out in BLS' labor productivity statistics (www.bls.gov/lpc/prodybar.htm), has resulted in higher energy usage in economic output than would have otherwise been the case. This serves to exacerbate, given America's hugely outsized energy consumption per capita as well as its manifest import dependency despite "shale plays," a global decline in EROEI (energy returned on energy invested). Declining EROEI reflects a geologically-based increase in the cost of fossil fuel energy extraction, which contributes materially to higher energy prices.

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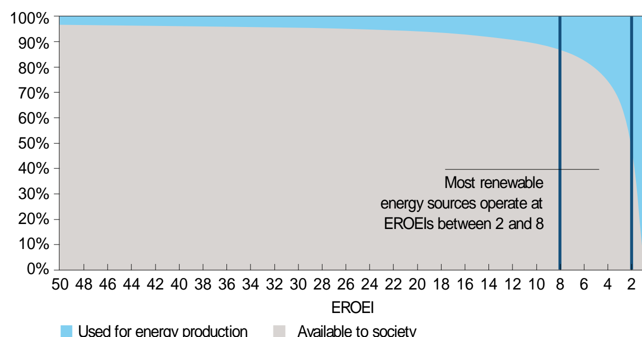
Of paramount importance, policy-induced weakness in US productivity growth and a marked decline in EROEI -- from a post WWII 20:1 to 13:1 currently and falling -- is a global affair):




Sources: Resource Insights, Dr. Charles Hall, http://vimeo.com/46989163; EIA; http://Gregor.us

Worryingly, productivity growth in the population dominating EM has been collapsing (www.macrostrategy.co.uk/#), exhuming the factor mobilization and central planning- based nature of a substantial portion of over two decades of outsized developing world economic growth. This fact is best captured by debt rising much faster than GDP. Let's look at China: last year China's total debt (government, corporate, and household) reached 226% of Chinese GDP, according to Credit Agricole. Total Chinese debt is expected to rise to 265% of Sino output by 2016; in 2000 total Chinese debt stood at 105% of Chinese GDP!

To summarize, three primary reasons speak for solid portfolio allocations in scarce real assets:

1. At some point, real assets' correlations to so-called "traditional assets" or paper assets are likely to decrease in sync with waning central bank-sourced asset price distortion/asset bubbles, i.e., to better reflect the historical correlations in the opening chart. In other words, all asset prices, including traditional assets, will once again be increasingly determined by NPVs that reflect reduced financial repression. This will be priced in via discount rates that capture the perceived asset-specific risk/return profiles as assigned by capital markets rather than the Fed and/or other central banks. The resulting "correlation decoupling" between asset classes would bode well for reduced aggregate portfolio fluctuations in times of heightened market volatility -- or for relatively rapid asset class dispersion on the heels of a stock market crash, for example. It could also augur well for reduced susceptibility to outsized portfolio valuation swings thanks to existing central bank balance sheet bloat.
2. Scarce real assets lacking substitutes and remaining in stout demand will tend to get more valuable over time.
3. Scarce real asset prices will not only ultimately reflect a shifting supply-demand equilibrium -- if demand sustainably exceeds supply, the demand line will simply shift up relative to the supply line, creating a new, higher equilibrium price -- but sustained fiat currency defilement. Said differently, when expressed in progressively more debased currencies, which ultimately represent increasing fractional reserve (derivative) currency claims on a finite amount of real (underlying) assets, scarce real assets ought continue to be excellent inflation hedges.

## Which scarce real assets in "ZIRP/QE landscape?"

Let us start with what has proven to be real money over the ages, physical gold.

In a nutshell, physical gold, held in a manner to minimize "bail in" risks, provides investors with the ultimate "purchasing power preservation passport" enroute to what could well prove to be destabilizing and ultimately very inflationary policy choices. We're in essence referring to "more of the same" policies. If sustained, they will ultimately unleash a new global monetary order. History infers that a new monetary system could well be either linked to, or based on, physical gold. In any event, suffice it to say that there are tremendous historical precedents to refer to:

An illustration depicting the first meeting of Spanish adventurer Hernándo Cortés and Montezuma, of the Aztecs, in November 1519. Cortés had come for the Aztecs' gold. Source: http://www.theguardian.com/books/2014/may/12/war-gold-500-year-history-study-money-society-kwarteng-review

In the interim, a sizable gap (please see first chart below) has developed between the Fed's monetary base, the origin of the money supply in a fractional reserve currency system, and physical gold. Over time, a bulging central bank balance sheet will find its way to the money supply, especially if changing inflation experiences/rising inflation expectations begin to invigorate the money multiplier, which is precisely what happened in the stagflationary '70s in the US. The traditional definition of inflation, an increase in the quantity of money starting at central bank balance sheet, thus appears to be entirely appropriate one, from a strategic perspective.

Because various near-term factors (weakening economies, a Keynesian policy consensus, political considerations, hugely indebted economies, *tremendous interest rate sensitivity*, etc.) suggest a return to QE/continued Fed balance sheet expansion is much more likely than not, the

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current valuation of gold looks highly favorable from both a tactical and strategic perspective:

Fed balance sheet (white line) vs. price of gold (orange line)

Source: Bloomberg

Meanwhile, gold's scarcity attributes continue to bode well:

Gold demand exceeded mined supply by 49% since Q1:12
Shortfall addressed with gold scrap sales – a tight market, continued!

**Gold supply and demand in tonnes**

| Supply | Q1 2012 | Q2 2012 | Q3 2012 | Q4 2012 | Q1 2013 | Q2 2013 | Q3 2013 | Q4 2013 | Q1 2014 |
|---|---|---|---|---|---|---|---|---|---|
| Total mine supply | 666 | 699 | 745 | 712 | 671 | 715 | 790 | 798 | 727 |
| Old gold scrap | 383 | 400 | 434 | 391 | 369 | 262 | 342 | 307 | 322 |
| **Total gold supply** | **1049** | **1099** | **1189** | **1103** | **1039** | **977** | **1132** | **1106** | **1049** |
| **Demand** | **Q1 2012** | **Q2 2012** | **Q3 2012** | **Q4 2012** | **Q1 2013** | **Q2 2013** | **Q3 2013** | **Q4 2013** | **Q1 2014** |
| Jewellery demand | 508 | 460 | 508 | 508 | 543 | 727 | 565 | 527 | 575 |
| Industrial & dental demand | 106 | 105 | 104 | 98 | 104 | 104 | 103 | 98 | 99 |
| Investment demand | 406 | 305 | 450 | 473 | 288 | 228 | 192 | 193 | 282 |
| Official sector purchases | 118 | 164 | 112 | 150 | 131 | 92 | 102 | 85 | 122 |
| **Total gold demand** | **1138** | **1034** | **1175** | **1229** | **1065** | **1151** | **962** | **903** | **1078** |
| **Market balance** | **Q1 2012** | **Q2 2012** | **Q3 2012** | **Q4 2012** | **Q1 2013** | **Q2 2013** | **Q3 2013** | **Q4 2013** | **Q1 2014** |
| **Stocks movements** | **-90** | **65** | **14** | **-126** | **-26** | **-174** | **171** | **203** | **-30** |

Sources: WGC, GFMS, SGE, CS, www.ingoldwetrust.ch

The same cannot be said for rapid growth in debt-based, counterparty-exposed, conceivably "multi-claim" paper gold assets -- e.g., gold certificate derivatives of physical gold -- whose claim(s) on a finite amount of real assets is getting progressively more tenuous/questionable. As the holders of paper gold begin to realize that neither the COMEX nor the bullion banks nor the central banks have a fraction of the gold required to satisfy the gold paper claims, they will demand delivery.

With the paper gold market being up to 100 times the physical market (http://goldswitzerland.com/gold-manipulators-are-desperate/), there will of course be nowhere near the physical gold available at current prices to satisfy outstanding claims, which a sustained move of gold from weak, generally Western hands, to strategic Eastern investors will serve to magnify. In fact, deliverable (registered) COMEX gold stocks touched a low earlier this year of 25 MT, or 2% of China's gold imports last year. Meanwhile, Fed-engineered gold futures sales have been shown, just this month, to exceed registered COMEX inventory by 4.7:1 (www.paulcraigroberts.org/2014/07/16/insider-trading-financial-terrorism-comex/). Ultimately, the "paper tail derivative" will stop wagging the "underlying asset dog." The upcoming margin calls will exert upward pressure on the gold price!

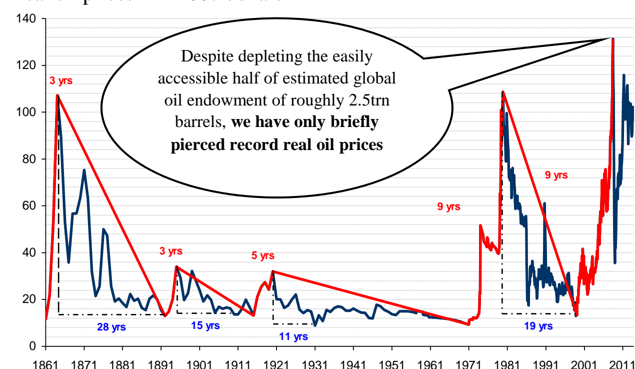
(Worthy of mention regarding 'trading on equity" and massive derivative-based counterparty risks fronts are the ever more fragile, *interest rate-exposed*, global paper claims to underlying assets, which bode well for underlying scarce real asset valuations:

- Between 2007 and Q2:2012, the global value of debt rose by $33trn or 23% to $175trn while the global value of equity fell by 21% to $50trn. (www.mckinsey.com/insights/global_capital_markets/financial_globalization)
- Huge balance sheet risks of global money center banks: according to the Bank for International Settlements or BIS, at year end 2013 there were $710trn -- roughly 44 times the size of the US GDP (www.bis.org/publ/otc_hy1405.htm) -- worth of mainly LIBOR-based OTC interest rate derivatives outstanding.)

Let's now turn to oil, while referring back to the "why scarce assets" section and the discussed declining multifactor labor productivity growth, declining EROEI (energy return on energy invested), and dense energy output dependency challenges as the quintessential reasons for oil asset allocations. This energy supply-leading, dense energy pivotal, GDP-enabling, and ever more expensive to exploit resource has managed to offset, over time, $ debasement.

Going forward, increasingly supply-constrained oil should continue to broadly echo growth in the US monetary base and in the US M2 money supply on the one hand, and growing scarcity on the other hand, a trend which should continue, possibly accelerate:

Real oil prices – in 2007 dollars




Sources: DataStream, CS

Bn of barrels of oil found versus barrels used: using 5, finding 1

| Year | Bn of barrels of oil found globally | Bn of barrels of oil used globally | Annual surplus/deficit |
|---|---|---|---|
| 1930 | 10.0 | 1.5 | 8.5 |
| 1964 | 48.0 | 12.0 | 36.0 |
| 1988 | 23.0 | 23.0 | 0.0 |
| 2005 | 5.5 | 30.5 | -25.0 |
| 2010 | 6.0 | 32.0 | -26.0 |

Sources: Weeden & Co., Dr. Colin Campbell, Macro Strategy Partnership

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Fed's balance sheet (green line) vs WTI oil price (white line) 2000 - 2014

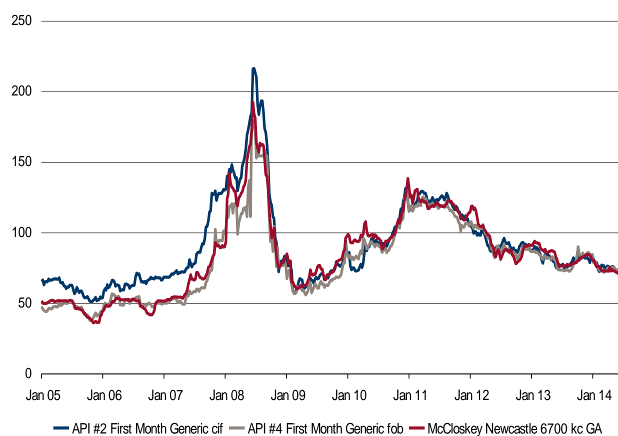
Source: Bloomberg

M2 money supply (green line) vs WTI oil price (white line) 2000 - 2014

Source: Bloomberg

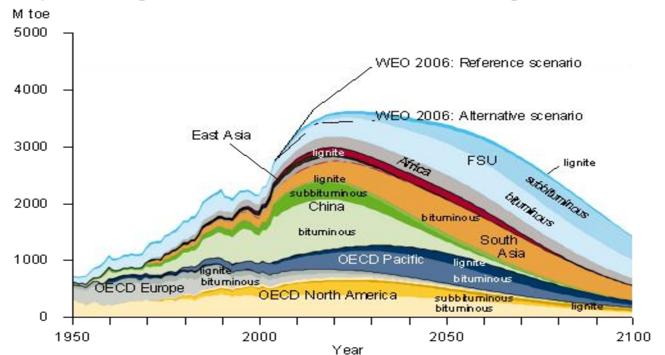
The scarcity, inflation hedge, constructive pricing, and diversification arguments also hold true for natural gas and coal assets:

Coal prices (API #2, API #4 and Newcastle)



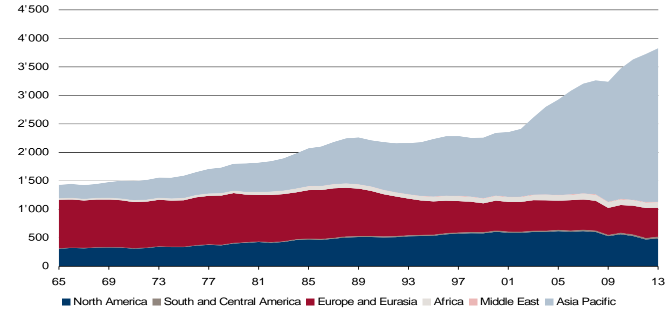

Sources: Bloomberg, CS

Projected coal production & use in of million tons of oil equivalent (Mtoe)



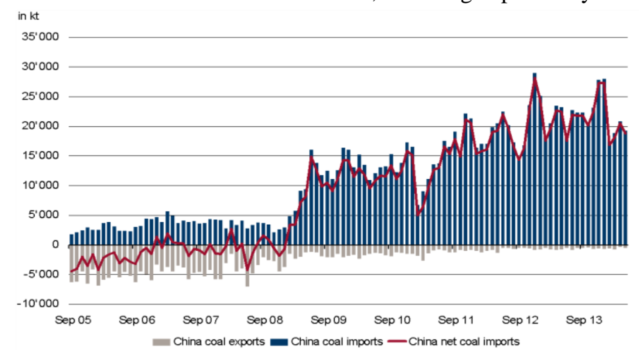

Sources: World Economic Outlook Reference Scenario, www.bgr.bund.de

Global coal consumption, in million tons of oil equivalent (Mtoe)
Net new worldwide energy supply over past decade has been 95% plus coal-based




Sources: BP Statistical Review, CS

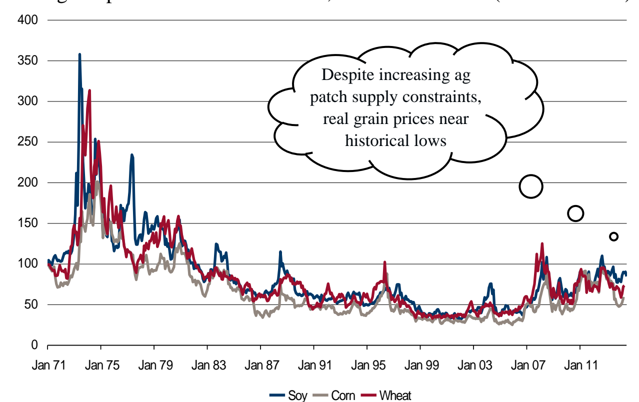
Chinese coal trade balance: sustained, widening dependency




Sources: Bloomberg, Credit Suisse / IDC, www.u3o8.biz

Let us finally shift to real asset scarcity in the ag patch; as above, constructive diversification, portfolio correlation reduction, and capital gains potential beckon:

Real grain prices in current US cents, deflated with CPI (01.1971 = 100)




Sources: FAO, UN, Bloomberg, CS

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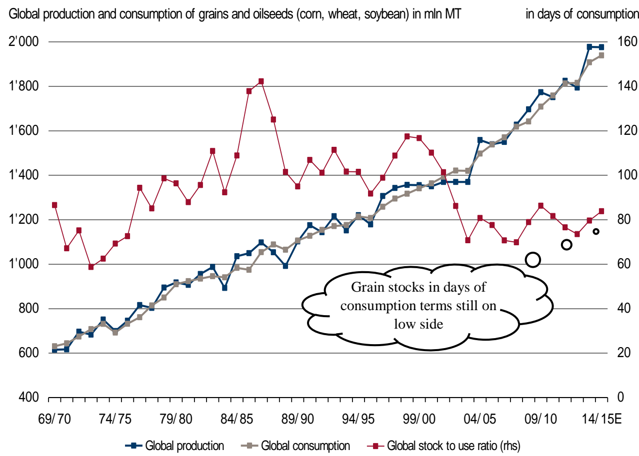
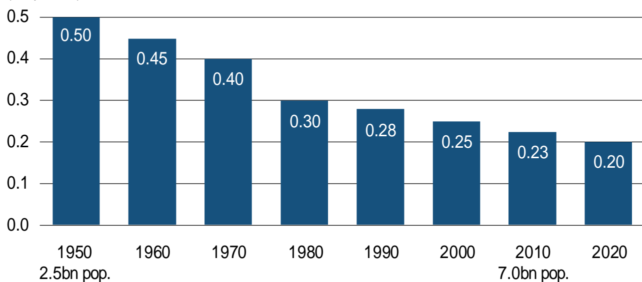


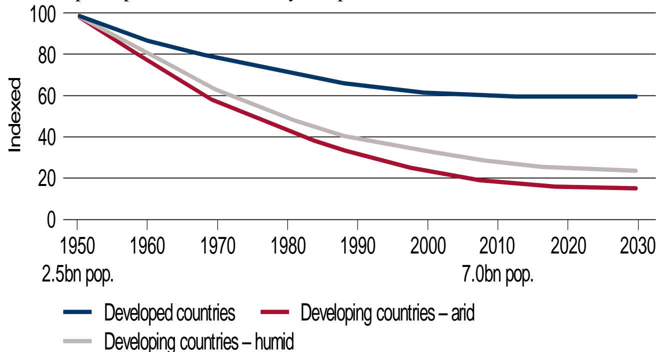

Sources: USDA, CS

Per capita world arable land in hectares (ha): plummeting
(ha/ person)



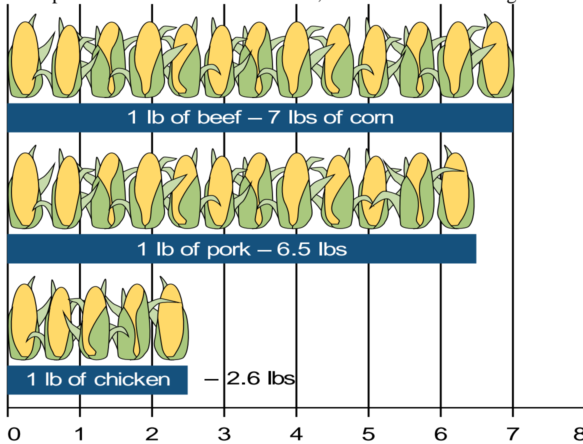

Sources: FAOSTAT, UN, Enviromental Health Perspectives
(Data are rough estimates and can vary depending on assumptions – data shows relative trend)

Indexed per capita water availability compared to 1950: a fraction



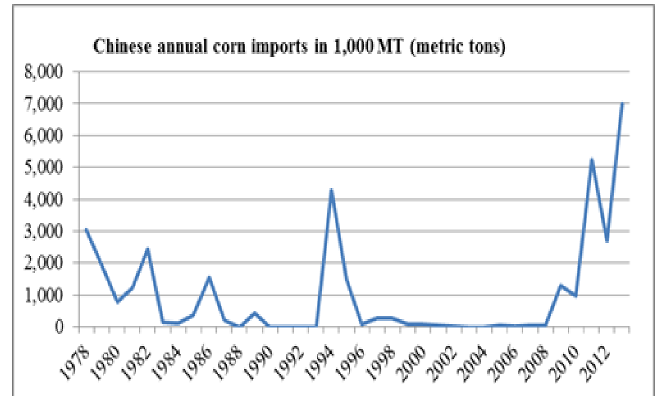

Source: World Bank

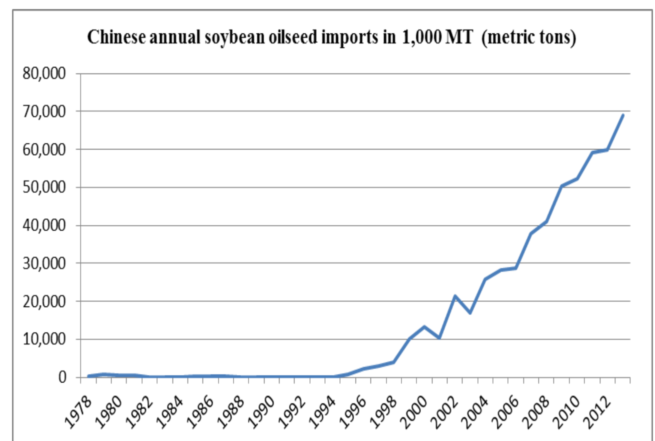
Meat production is feedstock intensive; EM residents are eating more meat!




Sources: USDA; Arjen Hoekstra, University of Twente, World Bank, worldwater.org

Meanwhile, perhaps the best indicators of a sustained increase in grain demand (set against growing supply constraints) from the world's most populated country, China, are featured in graphic format below:




Sources: USDA; www.indexmundi.com/agriculture/?country=cn&commodity=soybean-oilseed&graph=imports

## Risks to gold, dense energy, and ag investments:

- If leading central banks commenced -- and sustained -- shrinking their bloated balance sheets, this would most probably materially reduce the gold price per ounce.
- If US/OECD governments recommitted to the rule of law/respect for property rights in place of more and more arbitrary, "fiat government"-based policies, this too would likely materially reduce the gold price.
- A recession: historically, whenever the cost of oil has remained at 5% or more of world GDP, which is easily the case currently, the world economy has either flirted with or entered a recession, implying lower oil prices. (www.macrostrategy.co.uk/#, Bloomberg)
- As the cost of finding oil keeps rising, both oil majors' and "independents'" profitability and, by extension, return on capital, could remain under pressure, i.e., to the extent that they are unable to fully offset rising exploration costs with top-line growth stemming from rising oil and natural gas prices (oil-based volume growth will likely be at least modestly negative given widespread oil reserve depletion). Reduced profitability, if it manifests itself, could reduce dividend growth rate prospects, and, over time, dividend payments. Similar risks apply as concerns investments

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in coal assets and infrastructure vendors. (www.exxonmobil.com/corporate/files/news_pub_sar-2012.pdf)

- Sharply rising interest rates -- from near generationally low, "QE-impacted" levels -- associated with marked increases in either government solvency and/or inflation issues could offer substantial equity valuation headwind, deeply pressuring NPVs/stock prices.
- Liquid, equity-based investments in both dense energy and ag assets would, in sympathy with a severe stock market correction, also decline substantially in value, possibly even more materially, short term. That said, the perceived sustainable supply constraints in these essential assets should facilitate a constructive price divergence (outperformance) of dense energy and ag assets versus the equity market as a whole, strategically speaking.
- Pervasive and sustained increases in governmental grain price controls (last seen in 2008), which would deter investment, increase grain scarcity to the detriment of humanity, and punish investors.
- A pronounced increase in rule-of-law endowed, accessible, infrastructure-enabled arable land -- such as in the extremely fertile Ukrainian/Russian "Black Earth Belt" or in sub-Saharan Africa -- could materially alter, over time, the current agricultural supply scarcity. Such a development would negatively impact, probably substantially, agricultural asset values. (http://documents.worldbank.org/curated/en/2014/01/18793736/opportunities-challenges-private-sector-development-ukraine; www.ers.usda.gov/amber-waves/2013-may/research-raises-agricultural-productivity-in-sub-saharan-africa.aspx#.UukCyjgo6Uk; http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/0,,contentMDK:21935583~pagePK:146736~piPK:146830~theSitePK:258644,00.html)
- Successful and widespread localized implementation of land restoration/sustainable local farming practices (http://www.youtube.com/watch?v=YBLZmwlPa8A) would ease, possibly markedly so over time, the currently pervasive shortage of arable land per capita. Concomitantly, it could broadly ease agricultural supply scarcity. Reduced demand for fertilizer, herbicide, seed technology, farm equipment, water management, grain processing, and ag logistics would ensue, placing secular pressure on the value of these assets.
- Select liquidity issues as concerns non-US farmland equities.

## Conclusion:

We believe we can offer strategic investors transparent, counterparty risk free, global, investable, and typically liquid allocation solutions in scarce real assets as defined by physical gold, dense energy, and ag assets. We would gladly have a dialogue on this with investors. We are sanguine that these assets currently offer constructive valuation, diversification (decreasing correlations are probable over time), and return earmarks for strategic investors. Furthermore, we are convinced that the current fiat government/fiat money trajectory will serve to increase the scarcity of said assets both in absolute and relative (to fiat currencies) terms.

In a nutshell, these real assets, once considered the true "traditional assets," should perform relatively well both while central bank asset valuation determination and misallocation promiscuousness continue -- through ZIRP and QE-based policies -- and when global shareholders and creditors, the biggest stakeholders, "overpower" financial repression. The simple reasons: real money and vital scarce assets benefit in nearly equal measure from limited substitutability, misallocations, and sustained currency debasement. As such, gold, dense energy, and ag assets constitute arguably vital allocations for strategic accounts until the "great reset" takes effect. David Stockman recently pointedly stated the following:

> "So maybe it's time for a new version of the old regime at the Fed. That is, for the Eccles Building to eschew interest rate-pegging and ZIRP entirely, and thereby allow financial markets to once again engage in honest price discovery and two-way trading; and to allow the natural business cycle to meander along its own capitalist path as determined not by the 12 members of the monetary politburo, but the 317 million consumers, producers, investors, entrepreneurs, and even speculators who comprise the real main street economy."

And for demographically-based and geologically difficult to shed scarcity reasons, dense energy and ag assets may well prove to be good allocations post-financial repression (whenever that is) as well, i.e., as our economy continues to become more energy and food centric.

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