



## DK Analytics, Post #27: The quickening? 2/19/2018

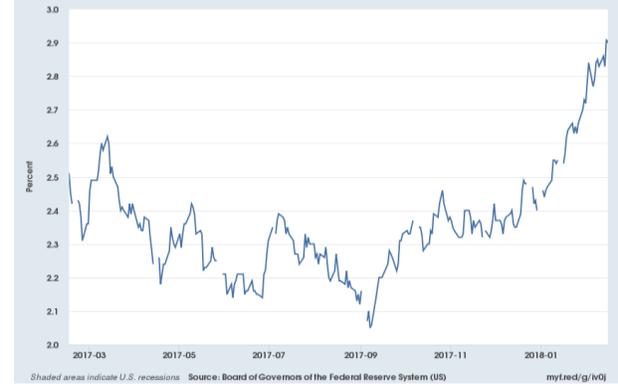
Trade weighted US\$: 86.25; US 10-yr: 2.90%; S&P 500: 2,739; Oil: \$61.70; Gold: \$1,352; Silver: \$16.64

### Trade weighted USD index: major currencies



Source: <https://fred.stlouisfed.org/series/DTWEXM>

### 10-year Treasury constant maturity rate



Source: <https://fred.stlouisfed.org/series/DGS10>

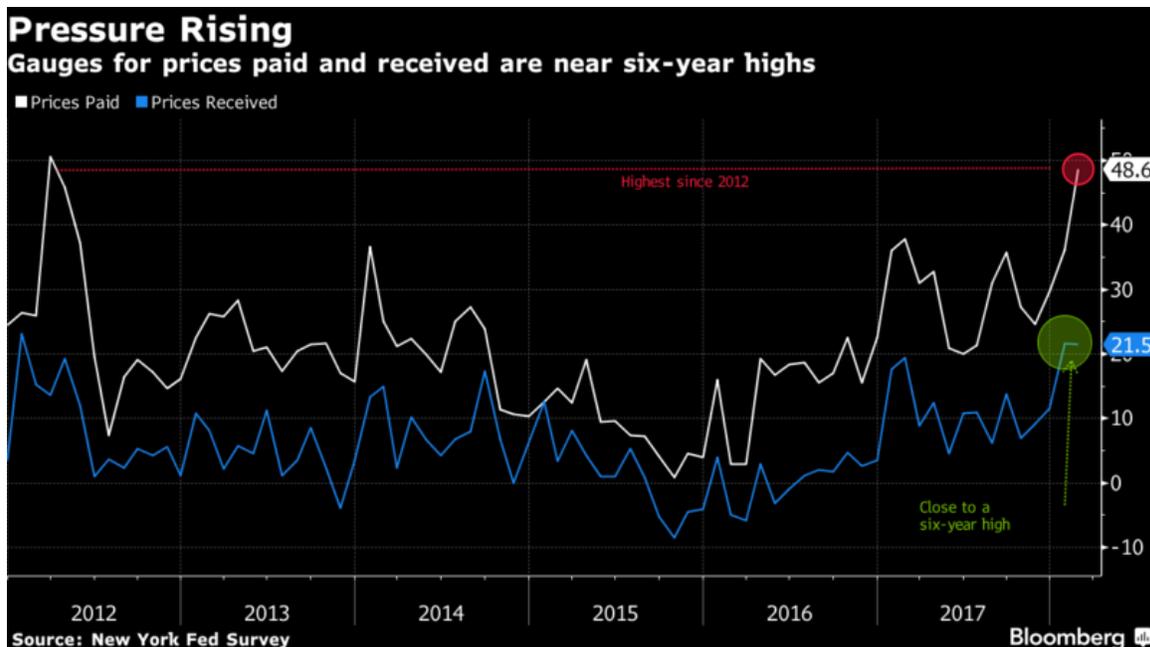
### Introduction:

The \$ has lost 8.2% of its value over the past year. The decline may accelerate as bond investors sell ahead of a huge expansion in Treasuries coming to market, pushing yields higher. Where bonds go, stocks follow -- and so does RE.

### A closer look:

A dollar under pressure means that more overseas holders of the American currency are selling it than want to buy it. This inevitably means that they will be selling dollar bonds first and foremost, but US stocks too, especially if the US unit continues to come under pressure. The reason: their home currency-based returns will come under pressure.

Given America's massive and growing trade deficit (it went from \$564bn to \$599bn last year), dramatically widening "official" federal budget deficits heading back into the trillion-dollar range, a Fed that wants to shrink its balance sheet by up to \$600bn p.a., and rising inflationary pipeline pressure (below), we've got huge headwinds for our "bubbly" dollar, bond, and stock valuations. But don't tell the talking heads on the leading financial news networks that!



This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



*In short, who is going to finance a \$600bn plus US trade deficit and \$1trn plus federal budget deficits while the Fed sells \$600bn of Treasuries on to the market? How does one spell \$2.2trn plus in USD bonds coming to market? How does one spell “higher interest rates (the cost of money), lower bond prices, and lower stock prices,” i.e., prior to additional economic weakness and pending official reinstatement of a Fed (Powell) stock market put?*

The latter will likely underpin sliding stock prices that higher interest rates (yes, Virginia, we can see higher nominal interest rates/lower bond prices during stagflation, revisited) and a recession-based EPS compression will initially deepen, but probably only after a long overdue and deep stock market swoon. It could be an epic decline.

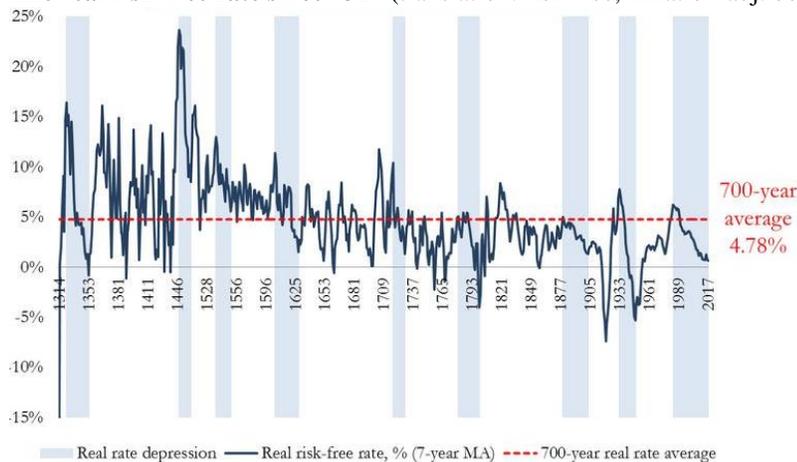
In other words, look for the 2008 stock market rout/financial crisis to be revisited. Back then, it took US stock market investors about six months to be convinced that neither the Fed nor taxpayers (TARP) would allow a sustained meltdown. Since Q4:2007, over a ten-year period, America has added about \$15.4trn in debt, reaching nearly \$68trn by late 2017. Globally, since Q4:2007, debt has risen by some \$91trn (well in excess of one year’s worth of global GDP!) to \$233trn recently, nearly three times the global stock market capitalization of approximately \$80trn. From 2007 to 2017, global debt is up 64.1% to \$233trn while global GDP over the same period is up “only” 37.1% to an estimated \$79.3trn, meaning debt/GDP has gone from 2.45:1 to 2.94:1, “greased” by unsustainably low interest rates.

Meanwhile, as per the latest tally, there are \$416trn in principally off-balance sheet, OTC interest rate sensitive derivatives. In a nutshell, these derivatives constitute money center bank bets on sustained low interest rates. If rates rise materially across the yield curve, those same derivatives constitute potentially balance sheet-pulverizing financial exposure risk for leading financial institutions. Risk manifestation could be liquidity and/or solvency based. Growing counterparty reticence (banks’ reduced willingness to lend to each other) helped fuel what nearly turned into a full-blown global liquidity crisis in 2008. We have learned nothing. “Too big to fail, too big to jail cronyism” was doubled down on.

Our bigger point: we continue to have outsized growth in both insolvency and monetary inflation risks, a secular decline in productivity growth, and more pervasive dense energy availability and affordability issues. *This is not an environment in which bond yields, much less the real risk-free rate hovering close to zero, should reflect productivity-based deflation and Adam Smith-style, wealth of nations furthering, free market capitalism perfection!*

Sometimes a long historical perspective is helpful in this regard, as per the 706-year global depiction below. Take a look at the real risk-free return -- in today’s world, in essence a 10-year Treasury yield less inflation -- trend prior to Volcker’s “tough love” monetary policy, which ultimately broke rising inflation’s back by the early 1980s. Said differently, look at the real risk-free rate trend between 1961 and 1989 below. It “housed” growing US federal and trade deficits, the repeal of the dollar gold standard, an unprecedented era of fiat currencies, and the stagflationary 1970s. During this 28-year period, the real risk-free rate went from approximately -6% to about +7%. Over the past 28 years, we’ve gone from 7% to “zero-bound.” Given our increasingly pervasive and intractable political, economic, and financial challenges, cycles, math, and “econ 101” strongly suggest a reversion beyond the mean is in store for the real risk-free rate: the impact of this on dollar, bond, and stock bubble valuations may well prove to be unparalleled.

**The real risk-free rate since 1311 (translation: risk-free, inflation-adj. borrowing cost)**



Source: [www.bloomberg.com/news/articles/2017-11-07/centuries-of-data-forewarn-of-rapid-reversal-from-low-interest-rates](http://www.bloomberg.com/news/articles/2017-11-07/centuries-of-data-forewarn-of-rapid-reversal-from-low-interest-rates)

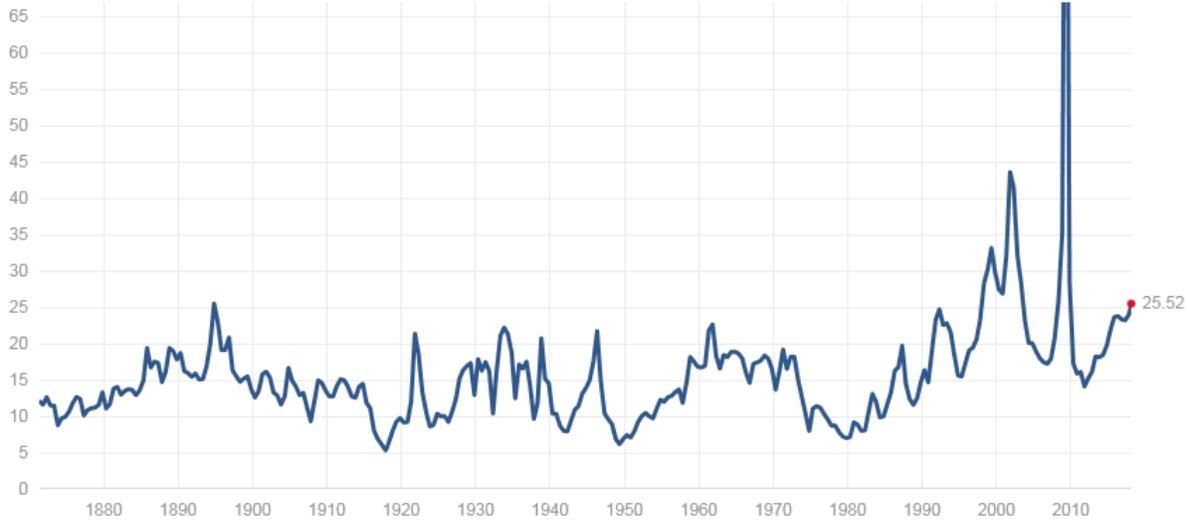
This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



### Reversions beyond the mean and stock and bond valuations, revisited

The S&P 500 mean P/E since 1870 is 15.7. But it hardly spent any time there! The P/E “blew past” 15.7 on way up and on way down -- the market is either manic or depressive! This is also known as “bipolar” behavior:

#### Current S&P 500 P/E ratio



Source: [www.multpl.com/](http://www.multpl.com/)

Even the 10-year US Treasury is volatile through a yield (and thus price) lens. The mean yield since 1870: 4.6%. Not much time spent there, less since 1971. Note the 1981 run up to 15% plus and our current sub-3.0% “bubble yield!”

#### Current 10-year Treasury rate



Source: [www.multpl.com/10-year-treasury-rate](http://www.multpl.com/10-year-treasury-rate)

Moving from a 3.0% yield on a newly issued 10-year Treasury with a 3% coupon to a 5% yield takes the Treasury from 100 to 84.4, a loss of 15.6%. Moving from a 3% yield to a 7% yield would have the 10-year Treasury plummet from 100 to 71.6, a loss of 28.4%. History shows us just how rapidly -- a year or two -- moves of this magnitude can happen to the *world's benchmark cost of funds*, especially at “inflection points,” or when secular cycles reverse.

A longer duration, newly issued 30-year Treasury with a yield of 3% and a coupon of 3% moving to a 5% yield would result in that 30-year bond going from 100 to 69.1, a loss of 30.9%. If the market demanded a 7% yield on the same Treasury, then its price would plummet to 50.1, a 49.9% loss. Higher interest rates will either force bondholders to

This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



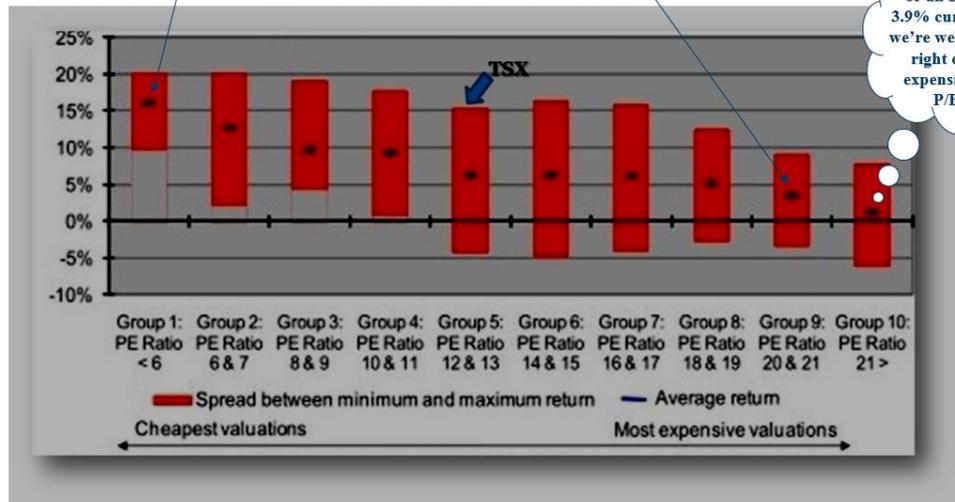
take huge losses or they will trap them in low-yielding bonds, i.e., assuming the market kept demanding higher rates for growing insolvency (debt) and monetary inflation (balance sheet expansion) risks. This is a good bet, in our view, and for two reasons: 1) our huge political, economic, and financial issues, and 2) given the long-term nature of cycles.

On the valuation front, good returns over time are very dependent upon what an investor paid for an asset. Let's start with bonds. The lower the yield, the less likely that a constructive return will be achieved, including in "investment grade" bonds. This also holds true for high P/E stocks (or virtually any "overpriced" asset). Investors that overpay for earnings tend to achieve poor returns. We can't help but let the seminal chart below tell "that story" once more:

**Strategic stock returns depend on acquisition P/E (valuation)**

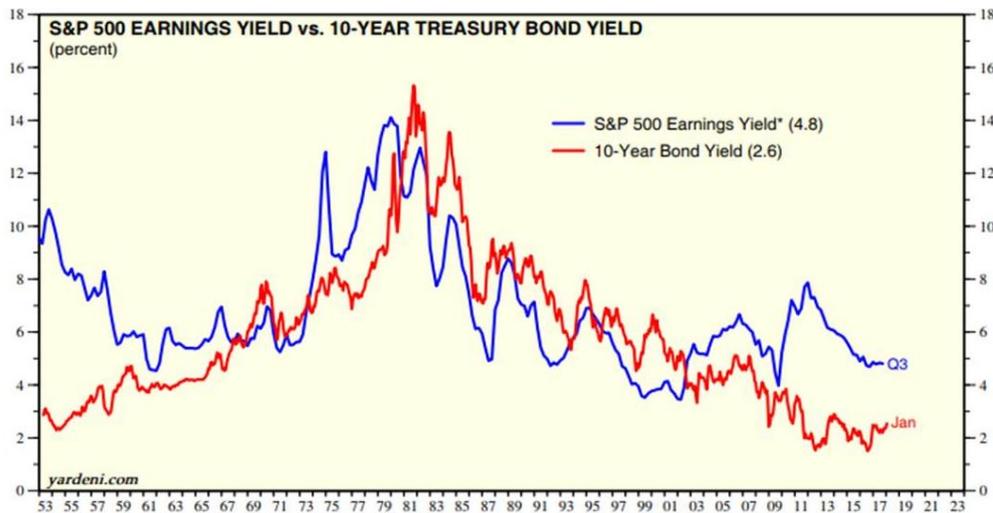
P/E of 6 or E/P of 16.7% (multiple expansion!); P/E of 20 or E/P of 5% (multiple compression!)

10-year forward real returns based on S&P 500 P/E ratios from 1871-2010



Sources: Plexus Asset Management (based on data from Prof Robert Shiller and I-Net Bridge per 9/30/2011)

In a related manner, and paramount: *stock and bond valuations "travel together."* This ties into NPV math and into valuation common sense. Translation: when bond yields rise, stock earnings yields rise -- and P/E's and prices fall:



\* Using quarterly average of daily data for S&P 500 price index, and 4-quarter trailing reported earnings through Q3-1988, then operating earnings. Source: Standard & Poor's and Federal Reserve Board.

Sources: [www.yardeni.com/pub/sp500trailpe.pdf](http://www.yardeni.com/pub/sp500trailpe.pdf); Note: if GAAP EPS were used, the S&P 500 earnings yield would be 3.9%!

(Please note: the current P/E of 25.5 = an earnings yield or an E/P of 3.9%; a P/E of 20 = an E/P of 5%; a P/E of 15 = an E/P of 6.7%; a P/E of 10 = an E/P of 10%; a P/E of 6 = an E/P of 16.7%; and 10-year forward real returns tend to equal E/Ps!)

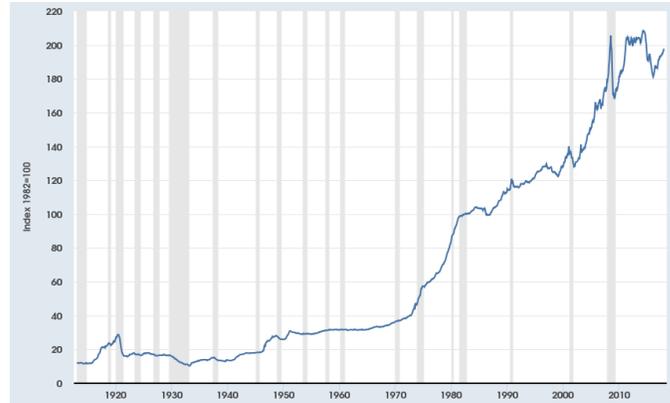
This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



## Cycles, the manifestations of reversions beyond the mean:

Speaking of cycles above, is a new commodity upcycle commencing, at least from a US dollar perspective?

**Producer Price Index for all commodities**



Source: <https://fred.stlouisfed.org/series/PPIACO>; grey areas indicate recessions

Given our longstanding, rampant, [productivity-pummeling misallocations](#); “Main Street’s” [declining property right protections](#); and our globally increasingly difficult “[geology](#),” are real scarcity assets, paced by vital [ag](#) (life-sustaining) and [dense energy](#) (leveraged ag and economic output) assets, about to enter a new bull market?

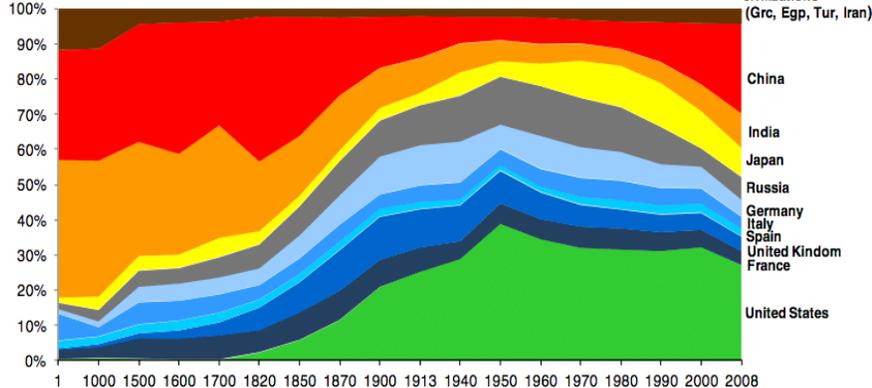
Let’s consider this juxtaposed against a population-dominating, “re-emerging,” [urbanizing](#) world that consumes a *per capita fraction* of [OECD nations’ water and energy](#). A “re-emerging world” (please see depiction below) which may soon find a huge purchasing power “lift.” That lift will be thanks to leading “re-emerging” nations (EM) typically having long boasted a studious population, low debt, high savings rates, and few underfunded pension plan issues.

In other words, a “re-emerging world” which accounts for the [vast majority of humanity](#) (around 83% of all humans or some 6.2bn people) that suddenly, collectively speaking, will have a more muscular currency. Boosted purchasing power that will reflect its collective “wealth of nations” investment, production, and trade surpluses that have been generated for at least a generation. The losers: most OECD currencies and most developed nation citizens.

All said, we appear to be on the cusp of revisiting an economic blast from the past (for a host of reasons, including its singularly wretched [bureaucracy](#), India may not be keep up with its re-emerging peers). Below, please find a graphic depiction of what was, and what could be again, at least to a degree. Caveats: barring commercialization of “dense energy nirvana” or fusion, and assuming a progressively more expensive/difficult to exploit [dense energy endowment](#) as well as rising per capita [ag/fresh water endowment constraints](#), re-emerging powers simply won’t be able to leverage per capita GDP and consumption to current OECD nation per capita levels. Even so, there appears to be considerable “economic growth tarmac,” which again would be primarily unlocked by more muscular EM currencies.

**Economic history of China and other major powers**

Share of world GDP



Sources: “Statistics on World Population, GDP and Per Capita GDP, 1 – 2008 AD, [www.ggdc.net/maddison/oriindex.htm](http://www.ggdc.net/maddison/oriindex.htm)

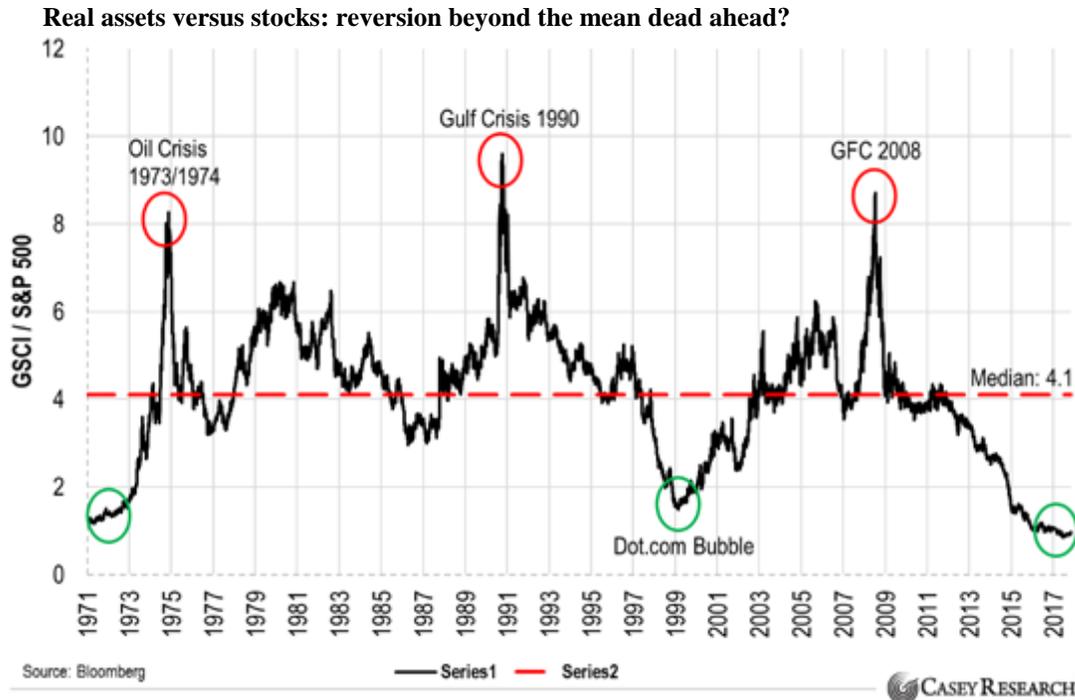
Chart source: <https://cdn.theatlantic.com/static/mt/assets/business/Screen%20Shot%202012-06-20%20at%209.37.55%20AM.png>

This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



Noteworthy: **6.2bn people** that will step up consumption -- especially of **energy** and **grains** -- at the margin thanks to strengthening EM currencies will dominate, in terms of pacing global demand, the decline at the margin in consumption by the **1.3bn people** that inhabit the so-called developed (OECD) world. While this may not be news to anyone, the upcoming impact on valuations, both in relative (to other assets) and in absolute terms, could be surprisingly dramatic. “News,” if you like.

Why? Because just like so many things in **politics**, **economics**, and **finance**, it is the *change at the margin* that recalibrates power, policy, and valuations, respectively. This is the crux of the argument, especially if supply constraints are considerable. For secular cycle-based real asset inflection point potential, consider the following chart:



### Conclusion:

Amidst huge valuation bubbles in bonds and stocks, which are again “tied at the hip,” we’ve got:

- *Financial* (unmatched **QE-enabled insolvency** and counterparty/liquidity risks both domestically and globally),
- *Economic* (global productivity slowdown triggered by financial repression-based **misallocations/cronyism** coupled with long declining *EROEI\** and an **overdue recession**),
- And *political thunderclouds* (loss of the **rule of law** and loss of “maker” property right protections from a) sound money to b) **massive redistribution to “takers”** to c) de facto transfers of American citizen wealth to both **K Street** and to **noncitizens and to non-mainstreaming immigrants** -- in short, the **sad story** of most **OECD nations**).

The rain will come. And so will the lightning. The fragile confidence in a financially and morally bankrupt status quo will suddenly crumble, and the credit system will freeze up. “Overnight.” Are investors and citizens prepared to capitalize on what’s ahead in terms of their **portfolio allocations** (p. 6)? Will they take advantage of the economically destructive central bankers’ global “investable assets bubble gift” to lighten up on overvalued dollars, bonds, and stocks in time, to “hide” in “safe” cash (T-bills), to use some of the proceeds to purchase physical PMs (real money) held outside the banking system, and to nibble on vital scarcity assets, especially sensibly priced dense energy and ag assets?

Greetings,  
Dan Kurz, CFA, [www.dkanalytics.com](http://www.dkanalytics.com)

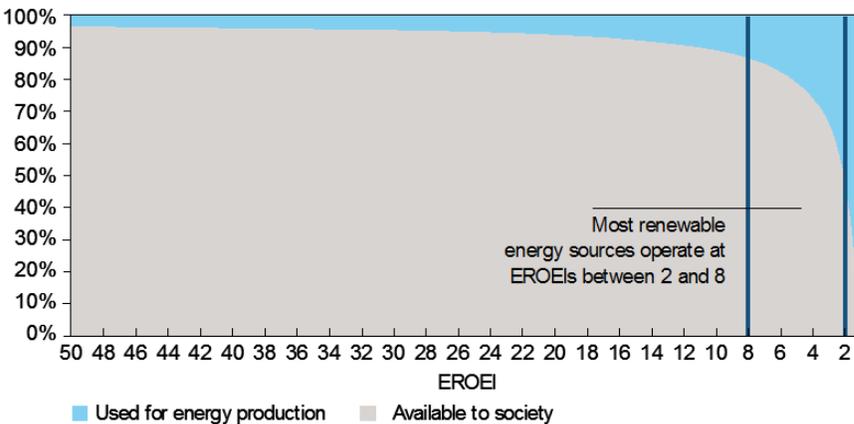
\* EROEI or “energy returned on energy invested” depictions are overleaf

This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.



## Lower EROEI and declining energy density impact: larger share of GDP devoted to assuring energy supplies

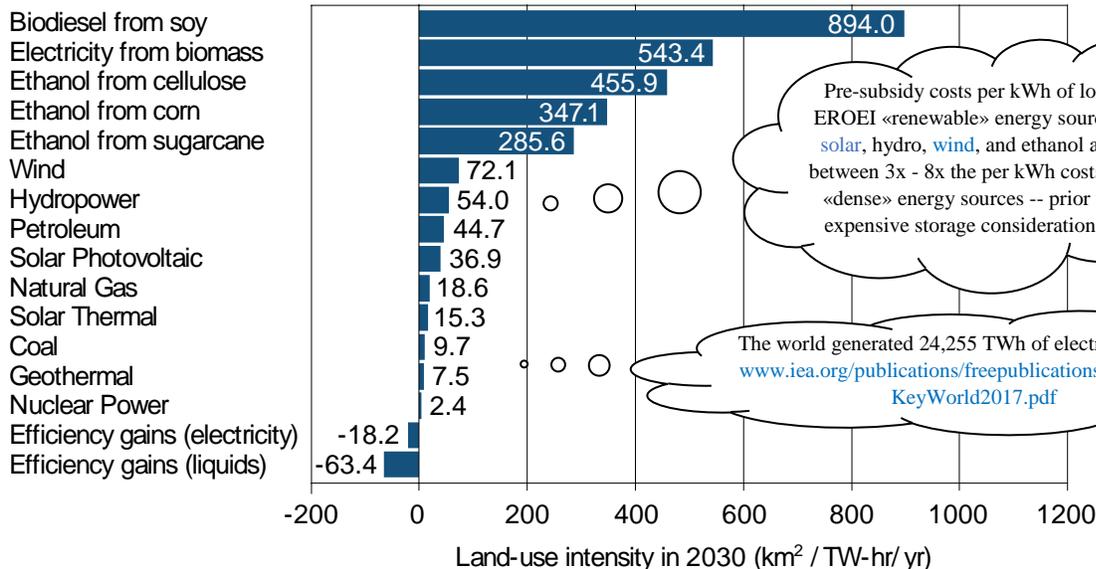
### Energy returned on energy invested (EROEI)



- 100 years ago, oil's EROEI was roughly 100:1 in "oil just below the ground" Siberia and Texas (offshore drilling EROEI: 5:1!)
- Over the past decades, energy production averaged "only" some 5% of GDP or an EROEI of 20:1
- As such, energy supply's economic significance is thus viewed as "minor" by mainstream economists and investors
- A declining EROEI will fundamentally change macro allocations and dense energy asset valuations (scarcity factor)
- *Upshot: dense energy and energy infrastructure should be strategic growth markets featuring rising asset prices!*

Sources: Euan Mearns, Resource Insights, Dr. Robert Hall, EIA; <http://Gregor.us>

## Projected land-use intensity per terawatt-hour per year (The lower the EROEI, the greater the land use intensity and cost!)



Source: <http://www.plosone.org/article/info:doi/10.1371/journal.pone.0006802>. Please note: values shown are for 2030, as measured in km<sup>2</sup> of impacted area in 2030 per terawatt-hour produced/ conserved in that year. Numbers provided are the midpoint between the high and low estimates for different techniques. For liquid fuels, energy loss from internal combustion engines is not included in this calculation.

This commentary is not intended as investment advice or as an investment recommendation. Past performance is not a guarantee of future results. Price and yield are subject to daily change and as of the specified date. Information provided is solely the opinion of the author at the time of writing. Nothing in the commentary should be construed as a solicitation to buy or sell securities. Information provided has been prepared from sources deemed to be reliable but is not a complete summary or statement of all available data necessary for making an investment decision. Liquid securities can fall in value.