

You Can't Wipe Your Butt with Gold: Treasuries Since 1798 and Risk-Minimal Trade Construction

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As long as human societies have been complex enough to store wealth and mine shiny metals, gold has been a friend to mankind. Gold has been a good trade this year. Gold will persist in being a good trade, as the most powerful central bank in the world wants inflation. Ultimately when the Fed wants something in its power to affect, they tend to get it. The United States government, in so far as it represents the interests of wealthy insiders who do not want to take massive haircuts, may have sufficient political will to stop the insanity.

Gold (and other commodities) are doing well in the uncertainty. Because current interest rates are artificially low through government intervention and economic activity is lackluster, the benefitting commodity is the bellwether store of value, gold. Further, the answer to debt deflation has been nationalization by governments of the world. This moves the center of pain to sovereign debt, in time. As result of these factors, we're in the middle of a big ramp in gold right now.



Pain in sovereign debt doesn't imply complete destruction of sovereign debt. It implies a rise in the risk-free rate of return, and convergence to the historical mean in risk premia. But this is not the end of days: it is nothing more or less than the end of a great bull market in Treasuries. It will be the death of the "Great Moderation" circa 1980. This bear market will feed into so many

massive changes for mankind: de-globalization, the hand of justice closing into an iron fist, and a slackening in the pace of technological change, blah, blah, blah...

There is good reason for the Federal Reserve to revive inflation in the economy, but she don't want a bear market in Treasuries. These two objectives aren't compatible at this point, because we are way beyond the ability to control what inflates and what doesn't. Either the Fed re-inflates and a bear market in Treasuries ensues, or the United States government has insufficient political will to re-inflate, and we enter a Japanese spiral of deflationary hell or worse.

A treasury market bear will take the S&P to the fundamental low in this bear market. It will decimate HY and leveraged loans (theorization). Consumer credit will be in a constant downtrend. The financial system will suffer and downsize. A bear market in Treasuries IS deleveraging manifested. In a more positive sense, the bear market will begin the process of creative destruction.

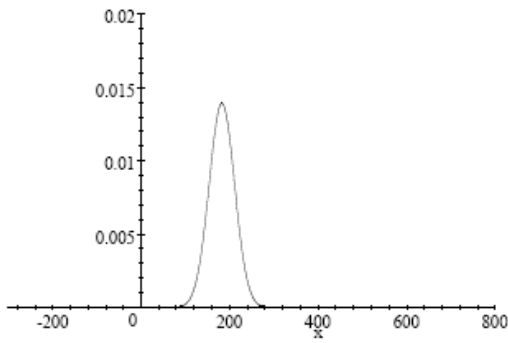
Gold screaming higher doesn't necessarily imply a doomsday scenario, a currency crisis, or a variant apocalyptic vision. Gold is just a straddle option to hedge government recklessness and theft. It is an instrument to clip the tail risk in otherwise risk-minimal trades, because it is an excellent long in times of inflation and deflation. But it's not enough. It generates no income, and it is certainly without risk itself.

Thinking about Risks

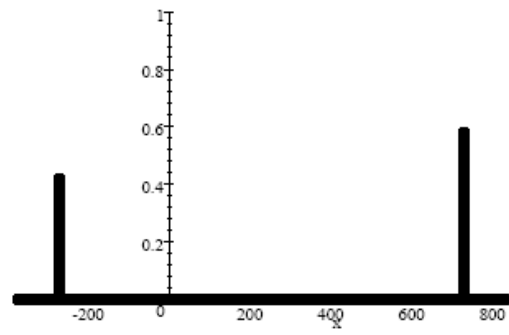
Turning even a benign zeitgeist into a trade often doesn't profit, because of time inconsistency (noise around the trend nulls the trend over the investment duration), and the information and computational power needed to make a fair prophet is not given. Sometimes the best remedy for not knowing what is going to happen is to follow Aristotle: moderation in everything. Have the humility to understand that things don't always work out the way you think. In short, seek minimal risk positions.

Think about this theoretical example about two risky investments. In box one, your return is \$1,000,000 with 0.5 probability, and you lose \$500,000 with 0.5 probability for each of the 365 days of the year. In box #2 you instead get a return of \$1,000,000 with 0.9985 probability and lose \$500,000,000 with .0015 probability each day.

Note that the mean returns for each investment are the same: $365 * 0.5$ in both situations. But for the second investment the mean has little value for stating risk. The concentration of risk is completely different. Probability distributions below.



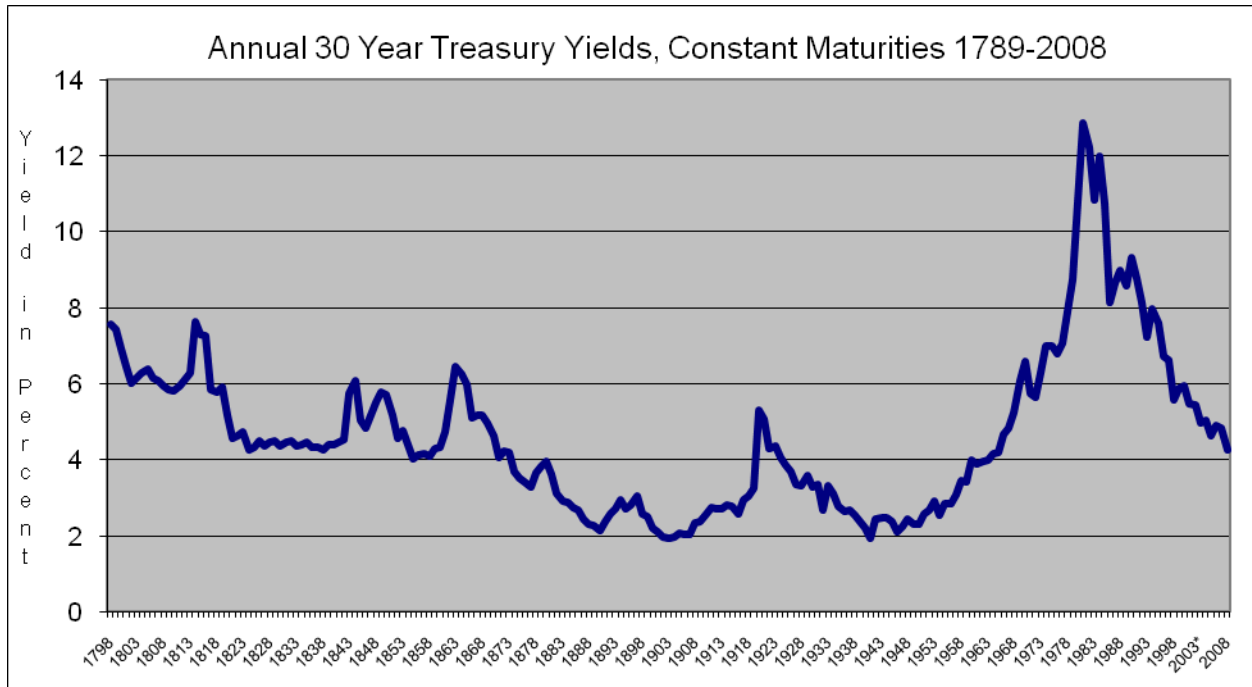
Box #1



Box #2

The world is in box #2, with losses and gains a function of specifics. Gold is an instrument to trim risks in the extremes. You need something to cover in-the-money events.

The U.S. Treasury market is a real world example of this. From a couple of sources, I gathered up data on long-dated treasury yields going back to 1798. Yes, 1798. You find evidence of the kind of probability distribution mixing found in Box #2. Note that yields start becoming 3- σ outliers after 1971, post Bretton-Woods, but a secular bear market in Treasuries actually began around 1946.



Source: http://www.federalreserve.gov/releases/h15/data/Annual/H15_TCMNOM_Y30.txt

Homer, Sidney and Sylla, Richard "A history of Interest Rates", Rutgers University Press, New Brunswick, New Jersey, 1996.

Note: When 30 maturities are unavailable, the nearest maturity yield is used.

By examining higher moments using pre-post 1971 as a structural break, there is even more indication of mixing. I calculated other points (like 1935 or 1946) as structural breaks too. Table 1 delivers the goods.

Table 1. Moment Statistics for 30 Year Treasury Maturities, Whole History and Selected Structural Breaks

	1798-2008	1798-1934	Post-Bretton Woods	1935-	1946-
N	211	151	35	71	60
Mean	4.66	4.12	7.73	5.45	6.00
Median	4.37	4.25	4.9	4.91	5.69
Variance	4.35	2.06	7.22	8.16	7.69
Std Deviation	2.09	1.43	2.21	2.86	2.77
Skewness	1.24	0.37	0.7	0.74	0.59
Kurtosis	2.03	-0.70	-0.17	-0.25	-0.30
Coeff Variation	44.77	34.77	28.62	52.40	46.20

Note the pre/post statistics vary little in the higher moments, but the first and second moments differences (the mean and variance) completely transform the distribution of treasury yield history into something with a sharper peak and bigger tail risk than the normal distribution (see kurtosis). The recent high yields also skew the distribution so it is less symmetric. Such wide within sample differences are a sign of being in Box #2. More to the point, even the de-risking trade *du jour* has embedded tail risks. Risk minimization demands a hedge against these tail risks, and a preferred trade should have few moving parts.

Risk Ontology

Some rules of thumb addressing essential properties for a risk-free trade:

- zero default risk
- actual return must equal expected return
- liquidity robust to extreme panic and greed

The first piece of my risk-minimized trade is gold. Gold as a commodity certainly has zero default risk. Supply considerations make its fundamentals impaired: scarcity conditions are inherent to commodities. But gold possesses something worse than reinvestment risk, as it generates no income. Further, the transactions costs associated with gold (less so ETFs) make it somewhat illiquid. That is why gold is always a hedge in a fiat money system, no matter how large your position. But it is an amazing hedge. As a monetary metal, sustained deflation drives people to buy it as the soundest money possible. It isn't the optimal inflation hedge, but it works well.

The second is U.S. Treasuries. Treasuries are not exactly free of default risk, but they are close. This is not because they have superior fundamentals. It is because the Federal Reserve controls currency printing. In nominal terms, they will always be able to fulfill their obligations. Treasuries have inherent reinvestment risk, but this risk is lessened by its coupon, which commodities do not have. Finally, as far as liquidity goes, treasuries kick the crap out of gold.

Technicals (mainly issuance) for treasuries is even worse. But I suspect that the U.S. Treasury market is the necessary liquidity sump-pump that glues the current system together. Unlimited

capital flows are absorbed within it, and no amount of American planned economy transformation has put much dent in it (so far). It is an architectural wonder of the modern world.

One could make the case that Treasuries are rendered more risk-free through CDS. But I believe cash/CDS basis trades are not kosher, as counterparties are all screwed if Uncle Stupid defaults. Too many moving parts, too, and simplicity is essential to liquidity.

There is fundamental and technical strength in that human systems are driven by two forces: hierarchical redistribution and interpersonal exchange. Treasuries are shaking hands with a system that has concentrated acid for blood. Face it, the world economic system is shaped by raw exercise of power as much as by mutually advantageous economic exchange. You cannot escape the fact that the dollar—with all its faults—is the reserve currency of the world by virtue of the U.S. government's military power, and its ability to tax the living daylight out of its subjects.

Your straddle, gold, impersonally tells the existing system to kiss your derriere. This trade is satisfying in so many ways.

There is no perfectly risk-free asset. Gold may have been a store of value for 5,000 years, but Treasuries have remarkable resilience as well. The full force and ability of the United States is invested in preserving the Treasury market. I submit that quantitative easing is the mechanism used to protect the Treasury market from costly propping-up bank cronies that have captured the state in a bread-and-circuses-late-Roman-Empire-kill-the-middle-class gambit.

Treasuries aren't Grey Goose, but they aren't Popov in a plastic bottle, either

A few days ago, I replied in the following way to the question: "What will happen if they stop buying our treasuries?"

"If foreign countries stop buying our debt, yields will rise and domestic buyers will incrementally increase treasuries in their portfolios. This will compensate for some of the slack.

At the same time, the federal, state, and munis will go on a well-needed austerity budget because there is no other alternative. Mind you, "austere" only compared to the current insane levels of government spending we now burn through. Current trends are unsustainable, so they'll change. Hopefully in the ways I indicated.

Treasuries aren't the best investment in the world. I won't argue with you there. I looked at the issue from the perspective of existence. Economic institutions will implode or atrophy, but that doesn't mean everything will be wiped away.

With unemployed at 10-16%, record delinquencies, and credit imploding, there's probably going to be another demand shock and massive bank insolvencies. Treasuries with a coupon certainly aren't the worst investment, no?"

In short, given tremendous deflationary forces, a bear market in treasuries isn't set in stone, nor is it imminent. It is also very likely that "they" won't stop buying our treasuries. Countries that run an export surplus will not change strategy when global demand is fragile, and exports will suffer when a currency becomes too strong. So exchange rate targeting will persist as the primary end of monetary policy in emerging markets. Make no mistake, a rise in the risk-free rate (treasury yields of some maturity) will unravel the whole world. Whether you are pricing a AAA CDO or a warehouse in Thailand, the U.S. Treasury yield is embedded in the calculation. I believe policy makers understand this. So in the short-term, expect self-interest to keep Treasury yields propped up in the following ways:

- foreign central bank support for treasuries will remain as long as exchange rate targeting remains
- Treasury vol usually doesn't explode like equity vol (crossed fingers), it builds inertia over time with slower decay
- Taylor rule considerations say QE ain't goin' nowhere

Capital Deconstruction

There is no creative destruction—much less deleveraging—to be seen in the developed world in this recession. Instead, governments of the world responded to the threat with nationalization, and capital dilution. So their hapless subjects will take the divine hammer in the end.

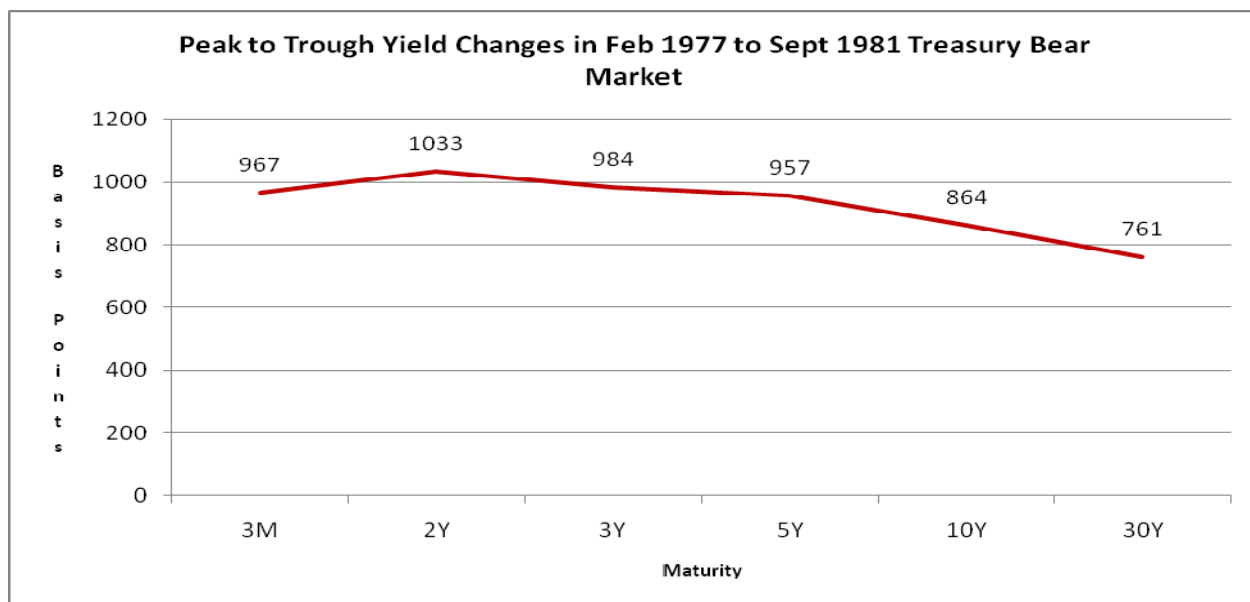
Nothing, nothing escapes the Dao. Excessive government debt issuance will end the bureaucratic manipulation of treasuries one way or another. With the Congressional Budget Office projecting \$17 trillion in Treasury securities held by the public in 2019, it is unlikely that foreign purchasers will fill the financing gap. More likely, foreign purchasers will foster internal domestic consumption, because the US consumer is done. This will reduce external surpluses, reduce the need to force down exchange rates and accumulate treasury reserves.

So what is a crooked government to do? They'll follow the centuries-old pattern of history: stealing from bondholders, of course. The modern, preferred method of theft is inflation. Since so many foreign central bank are the bondholders, they is little political pressure to protect their rights. China knows this, and is intelligently moving to ever shorter maturities.

A Treasury Bear Market with QE Creating an Extended Top

It is true that we've never seen such a massive display of government recklessness, socialism, and engineered capital destruction to write down debt burdens. But I've also not seen such an unstable termite-mound of Ponzi finance poised to collapse and smother everyone and everything in deflation faster than a million printing presses.

For these reasons, a good risk-minimal position is gold and 10s. The 5s/10s range on the yield curve got slaughtered the least on a relative basis in the truly awful bear market of 1977 to 1981, which holds cognitive bias for me. From trough to peak, in the '77-'81 bear market, yields on 10s exploded by 864 basis points (see chart). But it was worse for shorter maturities. TIPS issuance, if increased significantly, introduces tangible default risk in the trade.



There is also real risk in gold too, as it is leveraged through the nose. But as the ultimate convergence point for hedging government action, you really can't get away from it as a hedge.

I'm open-minded about tinkering with the trade, and treasuries have been fun to trade this year. Taking on a long-maturity steepener and lowering that risk dimension, but just don't think the timing is right. Alternatively, one could take a position in more pure inflation commodity hedges (like oil or sugar). On the deflation side, one could long treasuries further on the yield curve and add commodity hedges uncorrelated to GDP change (do your research).

There is real risk in treasuries. There is real risk in gold. Together they work well.

Should one hoard Hormel and ammo, and default on every obligation except the Nevada cave dwelling? Only if you can assemble a top-shelf harem cool with it. The rest of us grasshoppers should aim for humility, calm, and balance. Even abrupt change is evolution not revolution, and risk-minimized trades help make it all look normal-ish as time goes by.