

PROFIT POSITIONS

Black swans and complexity

The ongoing financial crisis is not the result of a perplexing phenomenon of complexity. It is the beginning of a train wreck we have seen for decades.

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The black swan of complexity

In the May/June 2011 issue of *Foreign Affairs*, Mr. Taleb and Mr. Blyth write an article titled *The Black Swan of Cairo*. The thrust of the piece is that complex systems must be allowed variability. Suppressing it in the pursuit of stability inevitably leads to larger variability later, often in catastrophic form.

We have been applauding Mr. Taleb for some time now for pushing the issues of control midst complexity through the media clutter. Theoretically, there is little to disagree with the article. Picture an anthill artificially fed by a kind picnicker for several months; when she leaves, the colony's bloated size alone will force a hardship unbecoming, not to mention the outsized pain of adjustment and relocation that otherwise would have occurred earlier and more often.

As EU leaders attempt to delay the contractions of nation restructuring, the article is receiving renewed attention. Bail-outs and money printing only exacerbate the ferocity of the inevitable societal adjustments to come. Ultimately there is no monetary answer to avoid the glacier of unfunded liabilities which approaches western governments.

In fact, Mr. Taleb and Mr. Blyth are being too kind when it comes to the financial crises besetting western civilizations in the last several years. For no matter how one looks at the evidence, the Fed, IMF and other institutions must accept serious blame both for failing to predict its inevitability and severity, and standing flat footed as the failures occur.

We are not watching complexity at work; we are watching bureaucracy crumble that long ago successfully destroyed complexity. Complex systems are self-organizing and robust; they are duplicative and competitive. Our governments represent the antithesis of complexity, and they are causing this mess.

Let us begin with the macro view and inch towards the relative microcosm of the financial crisis of 2008.

The debt glacier

Most fundamentally, there is the problem of long term unfunded liabilities. It is well known, and has been for some decades, that Western Europe's societal structure is unsustainable. While a media bent on sound bites might be forgiven for such oversight, economists and experts tasked with the fiduciary duty of overseeing fiscal health and currency management do not have that luxury.

We are not wandering into a surprise or horrified by the dark specter of a Black Swan rearing its long tailed head; this macro crisis appeared on the horizon long ago, easily calculated by any actuary armed with the knowledge that governments were not investing tax streams, but stealing them for current consumption. We may not have got the timing right, but we are within the 20 year window of the largest reformation of

**Complexity vs.
common sense**

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governments in history.

But it is not the result of complexity. It is the result of monopoly in place of complexity. These are not a complex, robust system of retirement funds drowning societies, but a monopolistic government built on redistribution without investment.

One might even take a step further back and stipulate that when Nixon finally closed the gold window, the Fed took on a frightening fiduciary duty for the world as the caretaker of a global currency with virtually no backing by any basket of commodities. Any economist or historian knows that no fiat currency has ever survived.

We are not wandering into a surprise or horrified by the dark specter of a Black Swan rearing its long tailed head; this macro crisis appeared on the horizon long ago, easily calculated by any actuary armed with a demographic table.

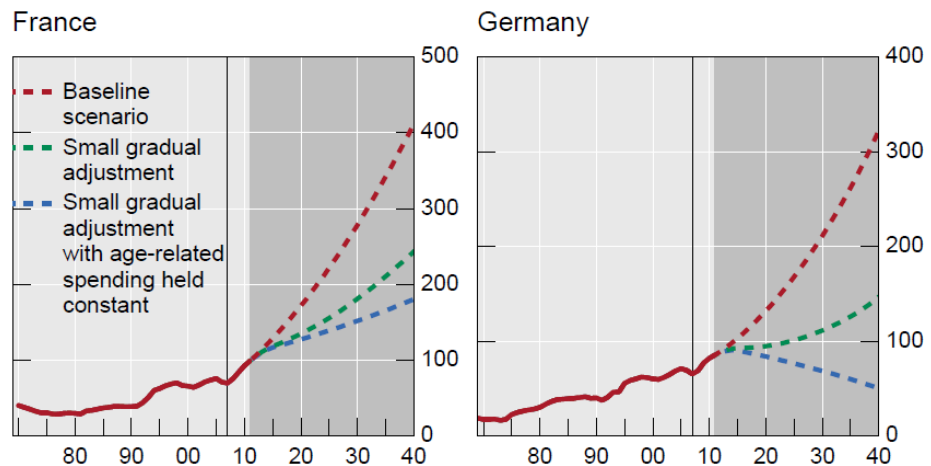


Figure 1 France and Germany debt forecast¹

And over the decades, surely the long run danger and destructive effects of denigrating the world's currency was clear to everyone. Contrary to the Left's simplistic argument that it was sociopathic corporations that befouled undeveloped countries, it is the inexorable drip of fiat currency decline that both funds western deficit profligacy and transfers wealth from the domestic and international poor to institutions controlling and benefiting from currency manipulation. This is simple two-dimensional monetary theory, requiring no understanding of percolation or complexity theory. How did anyone holding those fiduciary reins believe this would all turn out? We are determinedly and immorally sucking the world dry.

Our monetary policies do not defend inflation; they fund deficit spending and protect banking institutions. That is their empirical purpose, and that is what technocrats are now struggling to accomplish in the EU. Further, the monetary system as constructed is not modeled after complexity; it is an artificial hierarchical oligopoly with all the single process failure points that entails, pasted on top of complex economies and kept alive by increasing leverage and bailed out by equally non-robust, frail self-serving

¹ Stephen Cecchetti, Madhusudan Mohanty, and Fabrizio Zampolli, *The future of public debt: prospects and implications* (Bank for International Settlements, March 2010), <http://www.bis.org/publ/work300.htm>.

governments without the will or common sense to reform. We are not watching complexity at work; we are watching unsustainable bureaucracies self-destruct while they force complex economies to foot the bill.

But let us return to the more concrete and foreseeable issue of long term debt. If there was one scenario that politicians and economists and currency manipulators must avoid at all cost, it is currency and debt collapse. This is not one of a possible list of long tail events; it is the big enchilada. Like the Ford motto, this is job 1 for them. This is the *'do anything at all, but never trash civilization under a mountain of debt,'* thing.

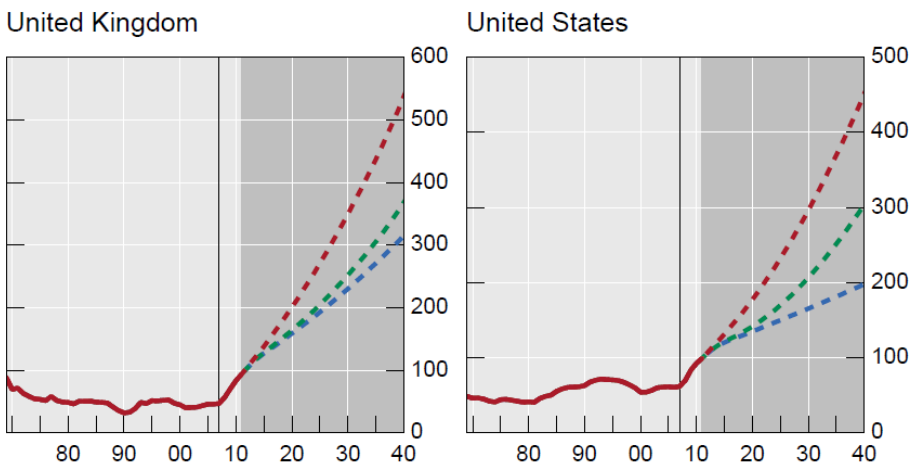


Figure 2 UK and USA long term debt forecast

Western governments are defying every law of jurisprudence, basic investment principle and financial modeling. They have done so for decades. The numbers are catastrophic. Forget interest rate servicing or monetary policy; debt rollover will soon consume huge swaths of world GDP. That this specter has been on the horizon for so long is a terrible indictment of bureaucracy and political doublespeak.

More immediate debt

The Figure 3 US total debt from Morgan Stanley is enlightening but misleading in at least two respects. First, a more accurate calculation of government debt is as a percentage of tax revenue since it represents the payment stream. Public debt as a percentage of GDP either minimizes the extent of the debt or implies that bankrupt bureaucracies can nationalize the economy to service it. You choose.

Second, it is the rollover that will kill us. In a total fit of denial, all western governments are shortening their bond offerings as long term rates rise in response to jittery investors. That rollover will engulf world GDP within 20-40 years depending on inputs; sooner if world GDP slides.

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Keynes is surely rolling in his grave. Where are the bankers rolling who are tasked with the care of responsible economies?

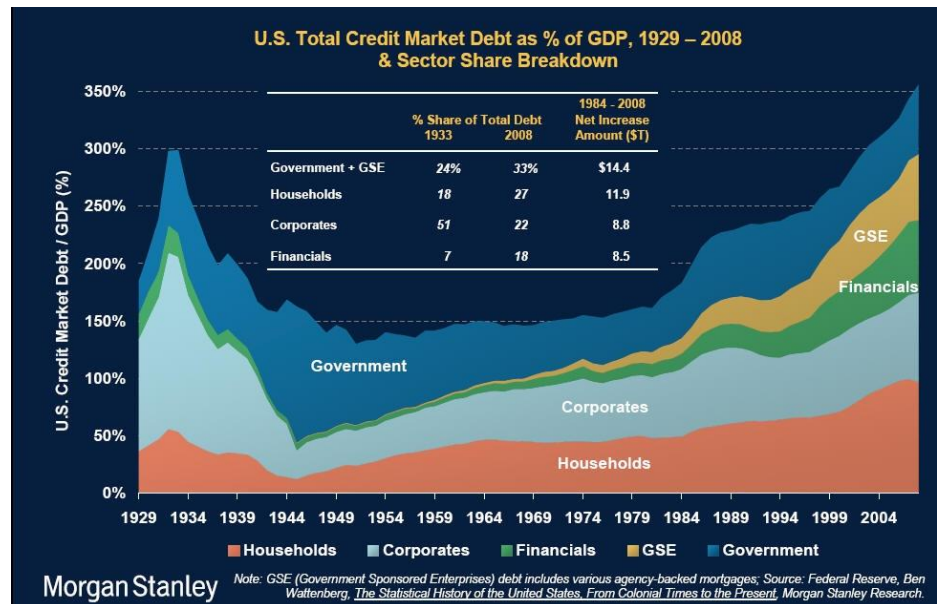


Figure 3 US total debt from Morgan Stanley²

From the Black Swan article:

The policy implications are identical: to make systems robust, all risks must be visible and out in the open—fluctuat nec mergitur (it fluctuates but does not sink) goes the Latin saying.

This quotation almost goes without saying; we must measure what we propose to observe, much less manage. And that is the point; we did measure our debt, and in excruciating detail.

In fact the rise of government, commercial and private debt in the past three decades has been so astounding that it broke into the shallow hard membrane of public consciousness on more than one occasion. That it occurred at all is a wonder given the moral arrogance of New Deal redistribution in preference to real investment and the osmotic effect of simplistic and disproven Marxian tautologies flooding every media and educational membrane.

In addition to the “Avoid debt collapse at all cost” Rule, the increasing ineffectiveness of marginal debt sounded its own metronomic train whistle as it rolled around the bend, its negative slope morphing the economy into a kind of permanently declining debtor’s prison. Maybe the worst part is that unlike Johnny Cash, we did not even shoot our guns; we are in Folsom economic Prison because the economists and policy makers shot theirs. Someone is on that train rolling on down to San Antone. It just isn’t going to be any of the citizenry. Keynes isn’t on that train either, but he is rolling over in his grave.

² Morgan Stanley Research, *The statistical history of the United States*.

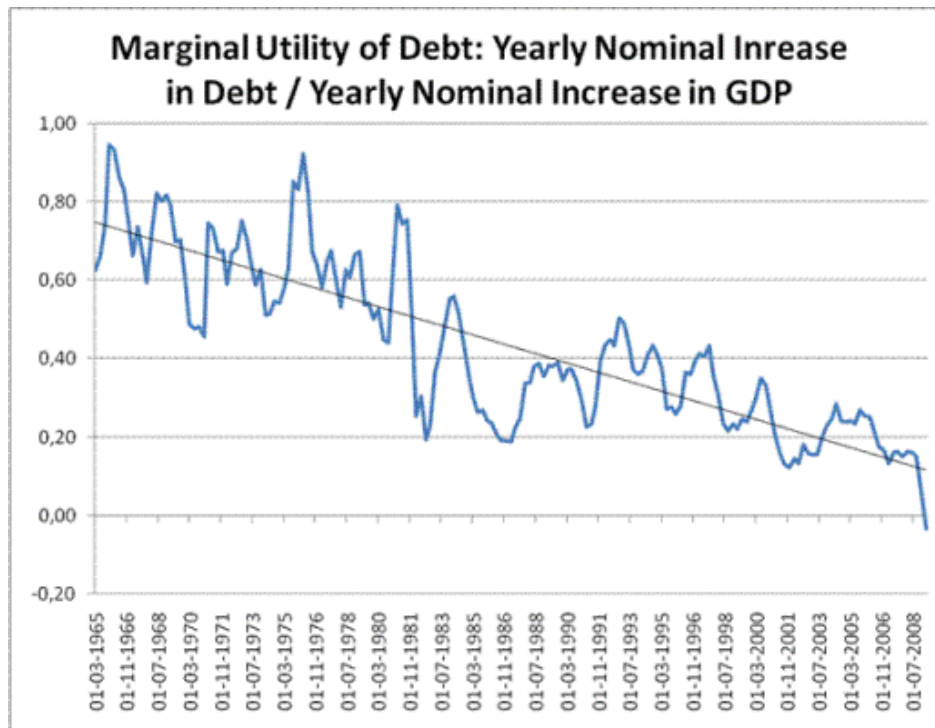


Figure 4 Declining marginal utility of debt

Now we have benighted politicians telling us that confiscating billions from the rich will substitute for the investment required to pay off the tens of trillions in debt we owe. That may be a good motivating speech for train robbers or inarticulate thugs wronged by the Man, but one has to well and truly jump the mathematical shark to believe it will work for a whole population. Worse, the sound bites clutter the airwaves and distract from adult conversation.

Contrary to the implications of the Black Swan article, the story of the last two decades has been of bureaucracies increasingly ignoring the ever louder chorus of objections coming from its citizenry as it barreled and tooted on into inconceivable territory. In a stupendous example of crowd wisdom, there is very real evidence that the American citizenry has been voting for a more constrained government since Jimmy Carter, and throwing out every party since that disappointed them.

The issue is not that the financial crisis was not foreseeable; lurking in some Power law tail, but that the enormity of the path we were on was allowed to continue. Even barring the benefit of hindsight, there is no rational argument to be made for accumulating these debts without drastic Fed increases in interest rates and screaming from the roof tops.

We can only surmise the thoughts of some of our experts lying in bed at night, wondering how this nightmarish scenario could keep going on without collapse or staggering inflation. We imagine a succession of mad Fed economists and academics thinking, "I know, we'll replace long term

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investment with currency devaluation, leverage the hell out of it, and then recompense the poor we are ripping off by supporting all manner of tax redistribution schemes. Yeah. Yeah. That'll do it." What a load of malarkey. When Mr. Greenspan, perhaps the biggest market manipulating wolf in free market (i.e., read complex system) sheep's clothing in history, announced that the business cycle had finally been tamed, was he making a statement or asking a nightmare induced question midst a reality he no longer recognized as sane?

Consider the landscape. With a dedication only Asians could muster, Japan has been putting the lie to Keynes for decades. How deeply entrenched in a Kubler-Ross induced denial does one need to be to argue Japan did not provide enough stimulus; their infrastructure alone is now a structural income stream for the Yakuza. Meanwhile, marginal debt utility was tanking even while over-leveraged firms required more subsidy. Especially in an artificially induced oligopoly, does any of that sound top-heavy to you?

Did the best economists and bankers in the world really believe we had reached a new nirvana, as the long glacier of debt insolvency approached? After all, insolvency is the harrowing and inevitable end of the two-dimensional financial structure we built; always has. Oligopoly is anything but robust, or duplicative or complex. We all know that.

When house prices exploded out of all historical precedent while unaudited GSEs bought up half the mortgage market and off-Balance sheet entries made financial statements unreadable (remember the quotation), where was the gnashing of teeth in our institutions? Anyone with even a passing regard for market efficiency knows those ideas are silly. Don't we? Here on Main St. the teeth chattering was loud and clear and sustained and frustrated.

When Basil increasingly allowed both higher bank leverage and incestuous backstops to increase risk and interdependence, where were the legislators and financiers and auditors? Large bank assets have grown from single digit percentages to over 200% of GDP in less than 50 years. When capital requirements are waived on bonds that prop up unfunded liabilities in preference to a pyramid scheme of tax flows, citizens might well ask who is watching the store. Did our leaders suppose we could ignore CAPM just because we decreed it? Sounds like something Nero would do. If our institutions are bent on aiding and abetting a banking system that would be inoperable or illegal in any other industry, we do not have a problem with complexity; we have a problem with bureaucracy and special interest.

Perhaps it should not be surprising that in a fit of sympathetic pique, our professional institutions followed the baby and the bathwater out the window by allowing auditing and legal regulation to devolve into nothing but 'Get out of Jail Free' cards. It is becoming very difficult to argue that those hard won degrees represent anything but a tax on society. Lehman, Dexia, MF Global, Madoff, Enron; choose your favorite example. The list is long and as the mess gets deeper, it will get longer faster. There is no effort to change the circumstances that prevent it.

Lessons learned

More than 3 years and trillions of monetary and fiscal injection later, our decidedly non-complex legislature produced regulation which solves neither linear nor complex issues. We also have:

- a significantly poorer generation,
- private debt load that has moved hardly an inch,
- trillions in assets stagnating the economy and prolonging unemployment because it prevents market clearing,
- transferred billions of fixed income from retirees and investors to banks,
- skyrocketing public spending in the face of a negative multiplier.

None of this activity helps a complex market recovery, including jobs. All of this activity saves oligopolistic banks and prevents their haircuts and failure. The toll on the complex economic system will be felt for decades. That is the cost of TARP. When symbiotic, artificial institutions cannot imagine a world without them, you know we are in trouble.

When it comes to the financial collapse, the real lesson has less to do with complexity than bureaucracy. Did we really need an historic collapse to learn that institutions and bureaus almost immediately find their first priority is self-preservation (that may be the understatement of the decade)?

And the lessons of Milgram on inactivity and compliance in hierarchies are frightening ones. We are watching bureaucracies across western civilization race to the bottom; the party system is just the puppet show out front. Even now, on the eve of terrible and excruciating reformation, the discussion is firmly centered on saving the monopolized system rather than saving nations.

There is no Superman of bureaucracy. There are no rules or regulations that will prevent failure or negate investment on our road to prosperity that we do not already know. Our institutions have just consistently rejected them. After all, leverage and redistribution is much easier than successful investment. In a complex system, these bureaus would have died and been replaced by their betters long ago.

Complex societies and economies have given up some of their complexity in return for monopolistic bureaucracies that promise added stability. They have responded by injecting unsafe and unsound monopolies into every facet of our lives. They have over-promised and under-delivered in virtually every succeeding invasion of society's complex fabric. They have caused every recession in the last hundred years. They are destroying our civilizations with debt pyramids. We need to rebuild our institutions from the ground up, with simpler, more conservative rules we can follow with clarity.

Lately, many folks have begun to consider Option 'B': functionally dismantle those institutions altogether and rebuild them within smaller communities where their bureaucratic over-reach can be more effectively squashed. As

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currently comprised those bureaus are adding little or no net value whatsoever. And the people know it; the foundational issues of the OWS movement were the same as for the Tea Party. How OWS concluded the answer to oligopolistic bungling was even more bureaucratic control and less complexity is a dismaying argument for dismantling public education altogether and allowing market complexity to handle it. All of which brings us back to the beginning; in agreement with Mr. Taleb and Mr. Blyth.