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Robot judges and the watched pot

"Gold – a six thousand year-old bubble"

- Headline of an FT piece from 2009 by Willem Buiter.

There are still reasons to like Mel Brooks, and most of them are in 'Blazing Saddles'. As with the output of other writers and directors, it's always the early, funny ones that last. Brooks' 1974 Western spoof happens to give us the perfect embodiment of the witless bundled morass of hugely conflicted high absurdity and outright surrealism that constitutes today's financial markets and the major players within them (sovereigns as well as banking institutions). Take the sequence where new sheriff and gentleman of colour Bart is attacked by a raging mob. To divert them, he holds a gun to his own neck. Of course, in the face of such dramatic posturing, the townspeople have no choice but to back down.

Hold it, men. He's not bluffing.

For Bart, read any number of financial institutions that have managed – bizarrely – to escape the clutches of the fate they otherwise deserve by threatening self-immolation, and have gone on to extort billions from baffled taxpayers and overly supine (or biddable) politicians. Suffice to say, financial markets have been living for some time in a Looking Glass world where logic, rationality and common sense no longer hold sway. What we get instead, as we wait not so breathlessly for the latest announcement of a plan to make a plan from the euro zone's political "leadership", is equivocation, prevarication and obfuscation. What will surely come, for many, is wealth obliteration.

But, as Jeffrey Gundlach stated recently, we are not policy makers, we are stewards of other people's capital and we are here to outperform. There may be constructive changes to the financial infrastructure that we think would best serve the most number – we would advocate reform of fractional reserve banking that would prohibit essentially fraudulent lending, and abolish entities such as the Federal Reserve whose primary service is dedicated to sustaining an unsustainable narrow banking elite even as the rest of the economy burns – but our immediate focus is navigating the treacherous waters that those same entities have so dangerously perturbed. So we are where we are, even though we would prefer not to be starting from here.

The problems are well known. Our base thesis is that a credit bubble of some forty years inflating has now gone objectively into reverse. The western economies, by and large, will simply be unable to grow vigorously enough even to service their accumulated debts. Different countries and cultures will resort to different strategies to try and muddle through. For some (i.e. Greece) that will probably mean default. A disorderly default could easily result in financially painful contagion rippling across to the core. For others (e.g. the UK), the authorities will resort to, or indeed have already resorted to, inflation. Or financial repression, if you prefer. The ultimate outcomes will be a product of politics as much as economics, which makes them difficult if not impossible to predict with any degree of certainty. There are obvious implications here for currencies, particularly those of the more conspicuous money-printing countries. Whether in terms of debt repudiation, asset deflation, financial system imperilment or monetary inflation, we think all roads lead to gold. Which makes the scale of the recent sell-off of gold in nominal dollar terms curious, but does not cause us anything beyond minor mark-to-market indigestion. A minor burp, if you will, for an otherwise contented baby.

The now seemingly constant and elevated financial market volatility does give rise to second order concerns, though. These are concerns that the human brain is not evolutionarily well equipped to handle. Nicholas Carr's 'The Shallows' asks what the Internet is doing to our brains. John Horgan, reviewing the book for the Wall Street Journal, wrote that

"We all joke about how the Internet is turning us, and especially our kids, into fast-twitch airheads incapable of profound cogitation. It's no joke, Mr Carr insists, and he has me pursuaded."

In Michael Lewis' latest, 'Boomerang – the meltdown tour' (reprints of some excellent Vanity Fair articles on the financial crisis) he cites Dr. Peter Whybrow, a neuroscientist at UCLA who "thinks the dysfunction in America's society is a by-product of America's success". The argument runs as follows. The human brain evolved over hundreds of thousands of years in an environment "defined by scarcity. It was not designed, at least originally, for an environment of extreme abundance." Dr Whybrow describes the human brain as "fabulously limited". We may possess a mammalian and third layer of brain matter, but they both surround a reptilian, lizard-like core. Our passions, suggests Dr Whybrow, are driven by the lizard core:

“The succession of financial bubbles, and the amassing of personal and private debt, Whybrow views as simply an expression of the lizard-brained way of life. A colour-coded map of American personal indebtedness could be laid on top of the Centres for Disease Control’s colour-coded map that illustrates the fantastic rise in rates of obesity across the United States since 1985 without disturbing the general pattern. The boom in trading activity in individual stock portfolios; the spread of legalized gambling; the rise of drug and alcohol addiction – it is all of a piece. Everywhere you turn you see Americans sacrifice their long-term interests for short-term rewards.”

Anybody tasked with staring at a Bloomberg terminal on a regular basis inevitably turns their thoughts to the motives of all those unseen investors silently driving markets higher or lower, on a daily basis. Our lizard brains, one suspects, are not well-suited to watching investment markets soar or collapse with exactly clinical detachment. “Fight or flight” does not translate well, or necessarily profitably, to volatile markets in one’s pet investment themes. But our hypothetical Bloomberg-watcher, if not ourself, also labours under the fair presumption that there are unseen humans at the other end of those trades. What if they’re actually robots ? One of the few, and perhaps only, intelligent insights that John Maynard Keynes made was his comparison of financial market participants with judges in a beauty contest:

“It is not a case of choosing those [faces] that, to the best of one’s judgment, are really the prettiest, nor even those that average opinion genuinely thinks the prettiest. We have reached the third degree where we devote our intelligences to anticipating what average opinion expects the average opinion to be. And there are some, I believe, who practise the fourth, fifth and higher degrees.”

Or in other words, investors tend to spend a good deal of time trying to anticipate the market reactions of other investors – as opposed, say, simply to uncovering objective deep value and sticking with it. So what happens if our putative beauty contest / financial market judges are actually machines ? Some sources indicate that high frequency and algorithmic trading (for want of a better short-hand: a bunch of robots) now accounts for three quarters of all US equity trading volume. So our hypothetical Bloomberg-watcher is now trying to assess the extent of greed and / or fear at work in a market that may be devoid of much direct emotional response and is now the plaything of a dispassionate trading algorithm or two. Good luck in trying to understand what R2D2 thinks about the latest unemployment figures.

The human brain has evolved to a high art of pattern recognition. The exquisite irony of our time is that we may be looking for patterns in markets where none really exist – just the vapour trail of C3PO’s latest software instructions.

One of the pieces we are most frequently asked to republish is the fictional creation of Nassim Nicholas Taleb in ‘Fooled by Randomness’, namely his retired dentist. This hypothetical investor is guaranteed to earn 15% per annum from his portfolio with an associated volatility in returns of 10%. These statistics are not open to dispute. But if our dentist monitors his portfolio in real time, the random price oscillations of his portfolio are likely to trigger extreme anxiety (and to most people, a natural if sub-optimal desire to overtrade, to take profits or cut losses). Depending on the frequency with which he observes his portfolio, our dentist will experience varying degrees of heartache or distress. The frequency of portfolio observation versus the probability of a profitable and therefore pleasurable outcome for Taleb’s imaginary investor is shown below:

Timescale – frequency of portfolio monitoring	Probability of favourable outcome (joy)
1 second	50.02%
1 minute	50.17%
1 hour	51.30%
1 day	54%
1 month	67%
1 quarter	77%
1 year	93%

(Source: 'Fooled by Randomness', by Nassim Nicholas Taleb)

The message, we trust, is clear. Too much observation can, plainly and simply, be bad for you – because it will tempt you to overtrade, and to sell fundamentally sound investments in the interests of loss aversion. If Taleb's dentist simply restricts the frequency with which he checks his portfolio – a fundamentally sound portfolio – he will boost his chances of incurring a positive emotional outcome from his monitoring activity. ***Note that nothing here changes about the composition of his portfolio*** – only the frequency with which he checks it. Investors determined to sit and watch the pot may end up being scalded. For that matter, Keynes came up with another intelligent coinage: markets can remain irrational for longer than you or I can remain solvent. Amen to that. So we sit here, with a diversified portfolio incorporating gold, silver, gold- and silver-related mining stocks, high quality debt, a modest allocation to defensive equities, and some systematic trend-following funds, and a tad of cash, and we wait. Like Odysseus' sailors we feel inclined to stuff our ears with wax rather than succumb to the latest asinine market-as-sports commentary from CNBC, or for that matter to turn off the Bloomberg terminal for a bit. But in any event we retain high conviction about our core investment themes, and short-term market volatility, 24/7 investment jabber, and even the trading activity of robots will not divert us from our course. Beyond that, only time, and the great weighing machine of the markets, will tell.

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