PFP
Wealth Management

3 Windsor Court
Clarence Drive
Harrogate, HG1 2PE
01423 523311

Lion House
72-75 Red Lion Street
London, WC1R 4FP
020 7400 1860

www.pfpg.co.uk

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A playground for robots

"When a government is dependent upon bankers for money, they and not the leaders of the government control the situation, since the hand that gives is above the hand that takes. Money has no motherland; financiers are without patriotism and without decency; their sole object is gain."

- Napoleon Bonaparte.

Long before entertainment came in the form of bits and bytes, Marx Toys made a game in which combatants controlled two plastic robots in a boxing ring. The game was won when one player landed a knockout blow on his rival, causing his head to pop up. I seem to recall this game being called 'Battling Bonkers', but according to Wikipedia it was branded 'Raving Bonkers' in the UK. Our American cousins, with their preference for vivid rhymes, call them 'Rock'em Sock'em Robots'. I am reliably informed by colleagues that the game plays a cameo role in 'Toy Story 2'.

Those concerned at the inexorable spread of robotics through our culture will probably view recent stock market "developments" with some alarm. Michael Hudson, a professor at the University of Missouri, suggests that the average holding period for a US stock is now 22 seconds. The average foreign currency "investment" is glacial by comparison, lasting a full 30 seconds. The protagonists this time round are also robots, engaging in what is known as High Frequency Trading (HFT), namely the deployment of computer programmes using algorithmic models that now account for three quarters of equity transactions in US markets.

The Investment Committee fails to reach a consensus

If the intellectual and capital investment expended on HFT were spent instead on something like medical research, the world might be a healthier place. And the market might be fundamentally healthier, too. As it is, as Keynes himself suggested,

"Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done."

Readers may recall the "Flash Crash" of 6 May 2010, when the Dow Jones Industrial Average dropped by over 1000 points, not its largest percentage loss but certainly its largest points loss in history. During the same trading session it then recovered most of those losses. (Related but less technologically turbo-charged programme trading is held by many to be responsible for the 1987 Black Monday Crash.) An investigation by the Securities and Exchange Commission and the Commodity Futures Trading Commission into last year's May Crash assigned the blame to a single sale of $4.1 billion of futures contracts by fund management company Waddell & Reed. Given that the SEC were also informed on five separate occasions in extensive detail about the Madoff fraud, and decided to take no action, whether that agency or any other has the resources or capability for efficient oversight and regulation of increasingly complex US financial markets is open to question.

Reginald Smith of the Bouchet Franklin Institute asks whether high frequency trading is causing the structure of the stock market to change. Purely intuitively, it must be. Website Zero Hedge suggests that

"the direct and increasing involvement of HFT is a de-evolutionary process that is leading to increasing market fragmentation, self-sameness, destabilisation and volatility, offset merely by allegedly improved liquidity, which incidentally disappears on a moment's notice when the negative side-effects of HFT overwhelm the positive, such as was the case on May 6.. the type of fractal recursive feedback loops inspired by increasing HFT participation lead to spikes in correlation: ***Correlations previously only seen across hours or days in trading time series are increasingly showing up in the timescales of seconds or minutes.."***

Whatever putative benefits are generated to other market users by HFT in terms of improved liquidity are likely to be outweighed by the potential negatives, not least the irrefutable fact that computers, lacking common sense, will execute trades that no rational human would ever consider. This surely leaves the stock market more dangerously prone to self-organised criticality with the potential for unlimited downside risk – a condition best compared to sand grains being dropped onto a table, one by one. Eventually, the sand pile reaches a stationary "critical" state after which any new grain added to the pile could conceivably trigger an avalanche of indeterminate scale. The possibility of avalanche is forecastable, ***but the identity of the specific sand grain (or computer-driven instruction) that will induce it is not***. Mary Schapiro, chairwoman of the SEC, herself told a congressional subcommittee that

"Automated trading systems will follow their coded logic regardless of outcome, while human involvement likely would have prevented these orders from executing at absurd prices."

The stock market is a complex eco-system that houses a multitude of investor types. Until comparatively recently, individual investors predominated. Now institutional investors preponderate. There are agency risks to the latter, but the role played by HFT participants requires greater study in the interests of market stability and investor protection. The market

should not be a playground for robots. Nor can there be any public interest served by allowing flash traders preferential access to incoming market orders in return for a fee. It's called front running and it's supposed to be illegal.

Perhaps high frequency trading is just one concentrated incarnation of the generalised trend toward market deregulation that allows the larger financial institutions quasi-monopoly control over financial markets, to the likely detriment of longer term and / or retail investors. Since the industry cannot police itself, only political action will clean the Augean Stables. But hope here may also be false. As Jeremy Grantham has just written,

"The financial industry, with its incestuous relationships with government agencies, runs a close second to the energy industry. In the last 10 years or so, their machine, led by the famously failed economic consultant Alan Greenspan – one of the few businessmen ever to be laughed out of business – seemed perhaps the most effective. It lacks, though, the multi-decadal attitude-changing propaganda of the oil industry. Even with their biggest-ever financial fiasco, entirely brought on by the collective incompetence they produced ("they" being the financial regulators and the financial industry leaders working together in some strange, would-be symbiotic relationship), reform is still difficult. Even with everyone hating them, the financial industry comes out smelling like a rose with less competition, profits higher than ever, and not just too big to fail, but bigger still."

Last week saw the deeply unedifying spectacle of British politicians attempting, without much tangible success, to berate the boss of Barclays – a bank which, however much it has benefited from the generalised administrational support for the banking industry, did everything in its power to avoid taking the government's shilling. Extraordinary to watch members of our parliament, only recently widely excoriated for committing wholesale fraud at the taxpayer's expense, claiming their place upon the moral high ground. But the current financial situation gives the coalition government a unique opportunity: to show that it is not in the pocket of the bankers, and to impose proper prudential management and oversight, appropriate remuneration policy and strategic control at least over those banks in which it has a significant shareholder interest and therefore ownership. Will it take that opportunity ? I for one will not be holding my breath.

Investors, too, can take one small step in the pursuit of their own rational self-interest. If you do not approve of the manner in which banking executives have effectively appropriated shareholder-owned businesses, do not buy their shares. This would be a justifiable approach purely from an investment perspective. Given the extent to which banks remain severely undercapitalised, dividend expectations remain far too high. And given the extent to which leverage juiced banking shares over the past two decades, those historically exceptional investment returns will not be coming back any time soon.

Tim Price
Director of Investment
PFP Wealth Management
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Email: tim.price@pfpg.co.uk Weblog: http://thepriceofeverything.typepad.com

Group homepage: http://www.pfpg.co.uk

Bloomberg homepage: PFPG <GO>

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