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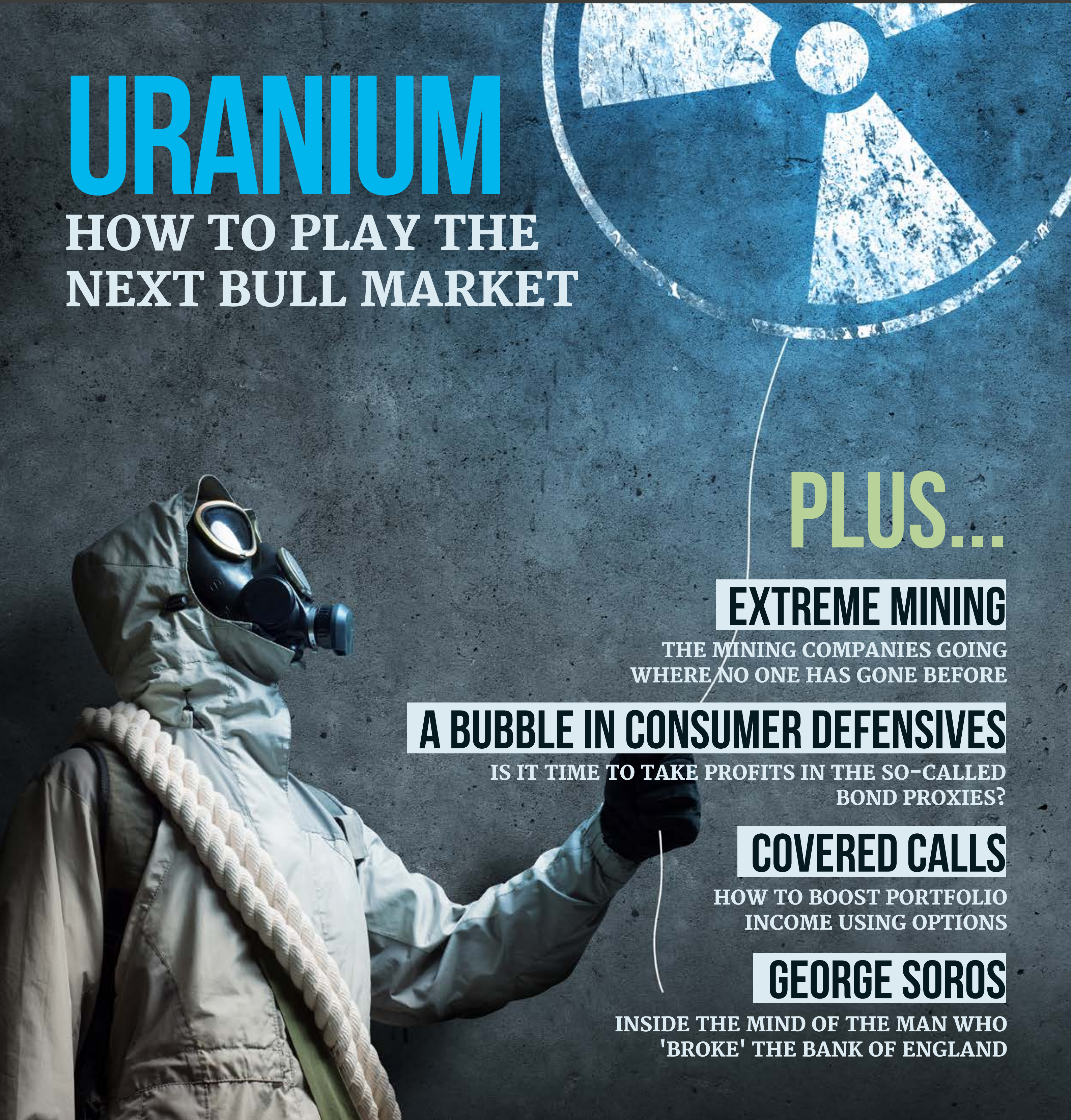

URANIUM

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PLUS...

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INSIDE THE MIND OF THE MAN WHO 'BROKE' THE BANK OF ENGLAND


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WELCOME

Dear Reader,

When you get investment advice or read up on financial news, it is always wise to take into consideration the agenda of your counterparty. It's a well-known fact that when you speak to a financial advisor, the amount of fees they receive for selling various products plays at least to some extent into the choice of products they recommend to you.

What's been less apparent is the collusion between the media and other special interest groups that affect your investments. That, however, has recently started to change.

2016 is by all means an extraordinary year. The Brexit referendum, major terror attacks and the rise of Trump all come to mind. Something a little less noticed, but equally powerful, is people's increasing awareness of the lack of a critical eye within the mainstream media when it comes to reporting news that affects your financial well-being.

Case in point: the impending banking crisis in Italy and the dangers that it brings with it for the entire Eurozone. This is a subject the mainstream media has long been reluctant to take onboard. Organisations like the BBC are predominantly run by 'Remainers', into whose agenda these messages don't fit. Other media outfits have a desperate reliance on a shrinking amount of advertising spending from large corporations, which is why they can't offend certain interest groups. The Guardian, for example, has been losing over £1 million per week!

At Master Investor, we have got one and only one objective: to provide you with the most useful financial information without being swayed by political beliefs, advertising income or other forms of soft corruption, such as invites to dinner parties in SW1. We reported about the coming Italian banking crisis as far back as autumn 2015. That was well before Italian bank shares lost 30%, 40% and (in some cases) 50% of their value during the first half of 2016.

Not that we wouldn't like the odd party invite. And we do need to live off advertising income! However, with a lean, internet-based business model and strong financial backing, we can afford to call a spade a spade.

Our web traffic has recently reached new record levels. Dare we say, the investing public is increasingly waking up to the shortcomings of the mainstream financial media?

Best regards,

Swen Lorenz, Editor
Master Investor

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ALL OTHER TOPICS

BY JIM MELLON

MELLON ON THE MARKETS

The first month anniversary of Brexit was marked by an all-day debate in London hosted by the BBC and the admirable Intelligence Squared. I went along, partly out of curiosity, and partly to see my friend Dan Hannan, possibly the most articulate and passionate of the Brexiteers.

It being London, the audience was heavily stacked with disappointed Remainers, still sore and still hoping that it was all a bad dream. Get real guys and be democrats!

The Financial Times has been talking about economic collapse (and was doing so way before the referendum), but there is scant evidence of such Armageddon. That is despite the best effort of commentators, including the FT, to create a "negative feedback loop".

On every measure, the stock market in the UK has surpassed pre-Brexit levels, and it doesn't seem that growth in the UK is much worse, or even imperilled by, the vote. Property prices had already been stalling before the plebiscite – and a good thing, too. They were too high, buoyed by easy money and a chronic shortage of supply. They will continue to drift gently, enabling many people who had been utterly priced out of the market to now get on the fabled ladder. At the moment, house prices are 9x average earnings in the capital, which is disastrous for anyone starting out.

Retail sales are mixed, with the internet continuing its relentless assault on conventional retailers, but little has changed in this regard either. The pound has fallen, but again, like real estate, it was too expensive in relation to Britain's chronic trade deficit, and already, its fall is attracting bargain hunters. Most recently, Softbank's bid for **ARM Holdings (LON:ARM)** for £24 billion illustrates the continuing attraction of the UK as a destination for inward investment.

Brexit, in whatever shape it eventually emerges, is a trivial sideshow compared to what is happening elsewhere, most notably in the Eurozone. This Eurozone problem is a theme that I hark back to because it is THE SINGLE MOST DANGEROUS THING IN WORLD MARKETS TODAY.

Before the referendum, at the Master Investor Show, I warned of the fragility of France and Italy. The Italian banks are really in a mess, and more evidence of this has been emerging in recent weeks. Make no mistake, there is no easy fix for these institutions, which, in every single case, are bust. There isn't enough money, or indeed sufficient will, to rescue them. Italy, now 10 percent smaller in real terms (economically) since the financial crisis started, will soon have no option but to leave the Euro. There is no way Draghi can pull a big enough rabbit out of his magical hat to avert this, and whereas I had been forecasting an Italian implosion 3-5 years out, I now think there is an even chance that this could happen in the next year.

France's problems are more nuanced, but recent events in Nice are likely to accelerate its demise alongside Italy. I forecast further ructions in that benighted country before year end also. The myth that businesses are going to move from London to Paris is just that; France has rigid labour laws, declining productivity, a budget deficit which is growing and a debt pile which is fast growing into an intractable problem.

Meantime, the original PIGS (excepting Ireland) are also in deep trouble. Spain's tax take is falling, at a time when its budget deficit has blown out to Brussels Rule busting levels.

"BREXIT, IN WHATEVER SHAPE IT EVENTUALLY EMERGES, IS A TRIVIAL SIDESHOW COMPARED TO WHAT IS HAPPENING ELSEWHERE, MOST NOTABLY IN THE EUROZONE."

Without an effective government, it is hard to see how this particular hole can be plugged either.

I wrote in the last letter that I wasn't sure which way the Euro would go against the dollar; now, I think it carries considerable downside risks, particularly in the short to medium term. It is likely to trade at parity with the greenback, and we are going short euro dollar as quickly as we can.

The ECB has limited arrows left in its quiver to stem the death spiral of its love-child, the common currency, possibly the biggest economic mistake in modern history. Unlike QE and other measures undertaken in the UK, the US and Japan, where a single minded policy can be pursued, the ECB has to contend with Germany resisting many of its efforts to kick-start the Southern part of its empire. Germany is not a fan of monetising the budget deficits of the feckless members of this ill-advised scheme, and nor is Germany taking the obvious fiscal measures to stimulate its own economy and to reduce its ridiculously high current account surplus.

"GOLD AND SILVER ARE IN THE TEMPORARY DOLDRUMS, AWAITING EVENTS. THOSE EVENTS ARE COMING, AND WILL PROPEL THEM HIGHER."

While the economic forecasts for the UK have been reduced, they are not being reduced as fast as they are on the mainland of Europe. This is despite massive amounts of unconventional monetary measures being implemented, and certainly more to come.

Expect more bond buying (possibly in the form of more corporate bonds being added to the ECB's balance sheet) in a desperate attempt to revive flagging recoveries. This is a disastrous

KeongDaGreat / Shutterstock.com

move, as buying corporate bonds interferes with normal market pricing for credit, allowing zombie companies to carry on misallocating capital. In turn, this contributes to further reductions in productivity and stifles smaller competitors which under normalised conditions could add to growth.

All of this adds up to more attempts to debauch the value of the Euro currency, and in this, I think the ECB will succeed. It is entirely the wrong policy, as Europe doesn't need a weaker currency (almost all countries have trade surpluses) – it needs stronger demand.

But with rapidly deteriorating budget deficits across Southern Europe, the idea of an integrated fiscal and monetary union is a pipe dream. That is why I believe that the continued debauching of the Euro by the rapid expansion of the ECB balance sheet will indeed lead to the depreciation of the Euro against almost every currency in coming months, and investors should be so positioned.

Japan has been trying the same thing for years, admittedly, but it is a unified nation, not one riven by internal dissent; it has its own unique set of problems, some demographic, some resulting from previous policy failures. More monetary easing can be expected there, as indeed can further intervention in the stock market by the Bank of Japan. The BoJ is now a top ten shareholder in EVERY Japanese company of substance, and if any country is to be sufficiently crazy to implement helicopter money tactics (the creation of unsterilised money), it is surely Japan.

Expect a potential melt up in Japanese shares, and a real fall in Japanese Government Bonds over the next year. JGB yields (along with plenty of other sovereign bonds elsewhere) are negative, and probably can't go much lower. This is because people will then hold cash as an alternative, and that is why shorting JGBs is a low risk trade with considerable upside.

I continue to like **Sony (TYO:6758)**, the world leader to be in VR, and it is performing well, especially as its movie studio is improving. If you have watched the performance of **Nintendo (TYO:7974)** shares since the release of Pokémon Go (up $20 billion in market capitalisation in a week!), you can see just how frantic the Japanese market can be when excited. The same could happen with Sony, in my opinion, when its VR headsets go on sale.

Gold and silver are in the temporary doldrums, awaiting events. Those events are coming, and will propel them higher...

Meantime, I'm off to catch a few Pokémons!

Happy hunting!

Jim Mellon

Click here to follow Jim's trades on Twitter

BY JAMES FAULKNER

HOW TO PREPARE FOR THE NEXT URANIUM BULL MARKET

At 14:46 on Friday 11th March 2011, the Tohuku earthquake – now sometimes referred to as the Great East Japan earthquake – struck off the east coast of Japan. At a magnitude of 9.0 (Mw) it was the most powerful earthquake ever recorded to have hit Japan, and the fourth-most powerful in the world since modern records began in 1900. The tsunami waves that followed afterwards reached heights of up to 40.5 metres and travelled up to 10 kilometres inland.

The resulting devastation led Prime Minister Naoto Kan to refer to the ensuing crisis as "the toughest and the most difficult" since World War II. A National Police Agency report released on 10th March 2015 finally confirmed the heavy toll exacted: 15,894 deaths, 6,152 injured, and 2,562 people missing across twenty prefectures, as well as 228,863 people living away from their home in either temporary housing or due to permanent relocation. The report also confirmed 127,290 buildings totally collapsed, with a further 272,788 buildings 'half collapsed', and another 747,989 buildings partially damaged. Early estimates placed insured losses from the earthquake alone at US$14.5 to $34.6 billion. The World Bank's estimated economic cost was US$235 billion, making it the costliest natural disaster in world history.

CAMECO (TSE:CCO) – VERTICALLY INTEGRATED

Investors looking for a well capitalised pure play on the uranium sector would be hard-pressed to do better than Cameco. The company explores, mines, mills, buys, and sells uranium concentrate, whilst also operating four nuclear reactors. With its newest mine in Saskatchewan, Canada expected to produce 16 million pounds of uranium concentrate in 2016, and with plans to open as many as three uranium mines in the Nebraska Panhandle, the firm is clearly gearing up to meet growing demand. Indeed, the firm is well placed to ride the wave of demand stemming from China's nuclear programme given its position as the country's primary supplier of yellowcake, under a contract that runs until 2025. Cameco's dominant position is underpinned by over one billion pounds of uranium reserves, of which 410 million are in the proven and probable category. As well as being the largest producer, Cameco is also the lowest cost operator, with a cash cost of production of around C$20 per pound, versus a current uranium price of c. US$26. This has helped it to remain cash flow positive at the operating level in recent years despite low uranium prices.

The fallout from Fukushima

Aside from the devastation and misery caused by the tsunami, one of the most enduring images we have of this crisis is the nuclear disaster at Fukushima Daiichi. Although the active reactors at Fukushima shut down their sustained fission reactions automatically immediately after the earthquake, the tsunami destroyed the emergency generators cooling the reactors. This led to three nuclear meltdowns and the release of radioactive material from 12th March, as well as several hydrogen-air chemical explosions between 12th and 15th March.

Fukushima ranks as the largest nuclear disaster since the 1986 Chernobyl disaster. And yet, remarkably, there have been no fatalities linked to radiation as a result of the accident. In fact, on 5th July 2012, the Fukushima Nuclear Accident Independent Investigation Commission found that the causes of the accident had been foreseeable. It also concluded that the plant operator, **Tokyo Electric Power Company (TEPCO) (TYO:9501),** had neglected to meet basic safety requirements.

Nevertheless, the fallout in the wider market for nuclear energy was swift and damning. Prior to Fukushima, 442 nuclear power reactors in 30 counties produced 14% of the world's electricity. That share fell to just 11% in 2012, barely a year after the disaster, as countries such as Japan and Germany turned off a total of 15 reactors. The spot price of uranium responded by falling around 60% to $30 per lb in mid-2014. There was a brief bounce back towards the end of 2014 as Japan began to re-start a few of its reactors, but the price has since settled back down to trade at just over $26 per lb at time of writing.

But it has to be acknowledged that the travails of uranium are as much to do with sentiment as fundamentals. And yet the negative sentiment surrounding nuclear power doesn't stand up to scrutiny. True, the World Health Organisation's 600-page report on the Chernobyl disaster estimated that the total number of radiation-related deaths is likely to total 4,000. Although sobering, that statistic pares into comparison against the millions of people the WHO estimates die from air pollution caused by fossil fuels each year. Notwithstanding the Chernobyl and Fukushima disasters, nuclear energy has proved itself to be a clean and reliable source of energy over time, providing the necessary safety measures are adhered to. As the Scientific American observes, "Nuclear energy's clean bona fides may be its saving grace in a wobbling global energy market that is trying to balance climate change ambitions, skittish economies and low prices for oil and natural gas."

The nuclear renaissance

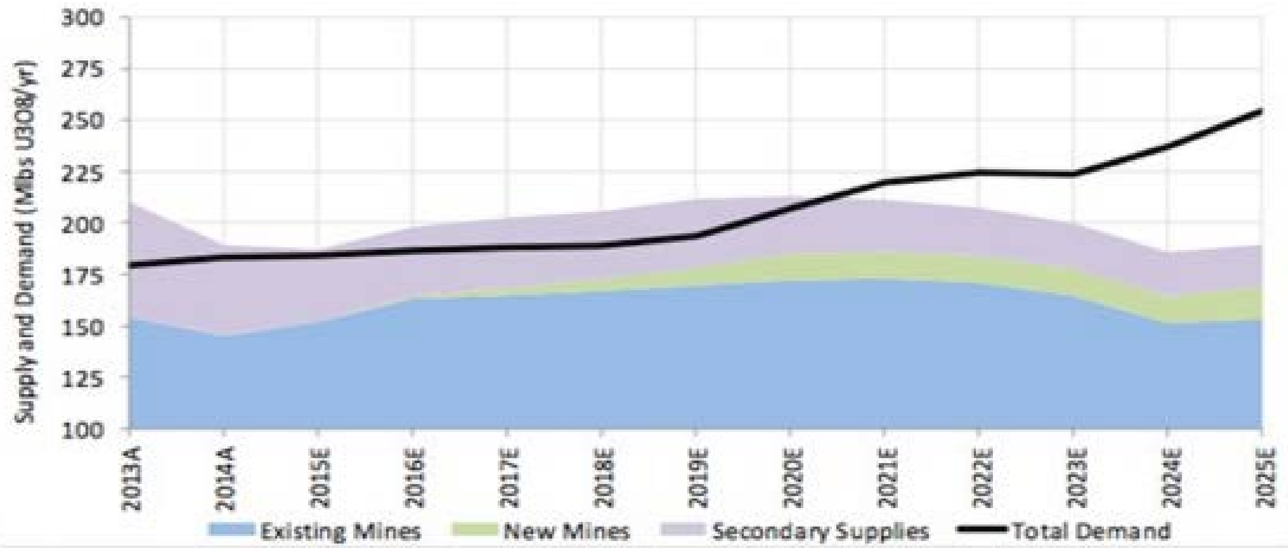
Five years on from the Fukushima disaster, interest in nuclear power is beginning to build again. In the US – where in 2012 Congress approved the construction of four new reactors, for the first time since the 1970s – the future of nuclear power is looking brighter if upcoming legislation is anything to go by. One bill looks set to open up national laboratories to entrepreneurs and their innovative new companies to develop public-private partnerships with the potential to bring new ideas to market. Another bill aims to build a sensible regulatory framework to allow diverse advanced reactor concepts to go from the drawing board to reality. These bills have been moving through Congress and are garnering broad bipartisan support. The Nuclear Energy Innovation Capabilities Act recently passed the Senate as part of a bipartisan energy bill, on an 87-4 vote. Meanwhile, the Nuclear Energy Innovation and Modernization Act was approved by the Senate Environment and Public Works Committee on a 17-3 vote.

> **"FIVE YEARS ON FROM THE FUKUSHIMA DISASTER, INTEREST IN NUCLEAR POWER IS BEGINNING TO BUILD AGAIN."**

Japan restarted nuclear reactors at the Sendai power plant towards the end of 2014, and it is understood that around 40 of the country's 54 nuclear power plants will be restarted. Japan is crucial to stabilising the uranium price, as it has accumulated 120 million pounds of uranium stocks while its reactors have been idle (it had to honour existing contracts), which is enough to fuel its needs for the next decade. The fact that Japan – the world's third largest nuclear power consumer at the time of Fukushima – is practically swimming in uranium is what many believe to have kept the price of uranium below $40 per lb for so long.

As Japan prepares to bring its nuclear fleet back online, its neighbour across the East China Sea is planning a much more ambitious programme of nuclear expansion. In fact, China plans to almost triple its atomic power generation by the end of the decade, and is forecast to spend $1 trillion to expand capacity by 2050. By that time, the Middle Kingdom would account for roughly one quarter of global nuclear output. Although China produces only four million pounds of U_3O_8 (known colloquially as 'yellowcake', which is essentially uranium in its naturally occurring form) annually, the country consumes 19 million pounds per year. China's planned increase in nuclear energy will raise that amount to over 70 million pounds by 2030.

Although China's is the most impressive plan for nuclear expansion, it actually only represents 36% of the global pipeline of nuclear projects. Other important players include India, South Korea, Russia, the UAE, and the US. Aside from the US, which we've already covered, India is the most important after China. India has just ratified a new nuclear liability law that addresses an issue that has been delaying deals for new reactors. Now, with the new legislation in place, there should be a flurry of new Indian reactor deals. In fact, India is already right behind China in terms of planned reactors over the next decade, with plans to construct about 60 reactors.



Source: Raymond James Ltd., WNA, IEA, UxC, NIW, Bloomberg, company reports

The turning point

But as we've seen above, there is currently a uranium glut, mostly in the form of Japanese stockpiles. In fact, as the above chart shows, demand is not forecast to begin outstripping supply until 2020. So why bother investing in uranium stocks today? The smart money (see below) isn't hanging around until 2020. And here's why. Nuclear power operators can't risk going anywhere near running out of fuel, as that would cause a meltdown. On top of this, they can't simply put yellowcake straight into their reactors – they require fuel rods, which can take around a year to a year-and-a-half to produce. To provide a buffer, operators tend to cover their uranium requirement around three years out, which is incidentally just before the shortfall comes into play, according to the chart.

But it gets better. When uranium prices were rocketing back in 2007, operators rushed to sign supply deals for fears that prices would continue to soar. Despite the fact that prices subsequently crashed back down to earth, these deals were binding, and many of them were for periods as long as ten years. Furthermore, in the intervening period, operators have held off from signing new contracts, as they have been able to pick up uranium cheaply on the spot market. But once they do, those new contracts will be at higher prices than the current spot rate. This is simply because producers will demand higher prices so they can expand production to meet future demand – the present spot price of uranium is such that almost no new production can be brought online economically. In turn, the plant operators will accept higher prices because: a) uranium is a relatively small component of their overall costs; b) they know new production is necessary in order to meet future demand; and c) secure access to uranium is critical for the safety reasons we touched on earlier.

But if you remain unconvinced of the arguments in favour of uranium as a potentially lucrative investment, it is worth taking a look at the activities of the 'clever money' – billionaires, hedge fund managers and the like. In June, Hong Kong billionaire investor Li Kashing, through his CK Hutchinson Holdings and CEF holdings, said he would buy $60 million in convertible bonds from NexGen Energy targeting uranium projects in Canada's Saskatchewan province. The month before that, billionaire D.E. Shaw notified the market that he'd acquired 1.4 million shares in Cameco. Shaw and Kashing follow other big names, including George Soros, Ken Griffin, Ray Dalio and Steve Cohen, all of whom have been dipping into the uranium sector of late. Of course, there is nothing to say that they couldn't all be wrong – they are only human after all – but it appears they can sense a change is afoot in the uranium market, and they don't want to be left behind if and when it gets underway.

ENERGY FUELS (TSE:EFR) – "IF YOU OWN THE MILL, YOU OWN THE DISTRICT"

Energy Fuels is set to be the number two producer of uranium in the US in 2016, yet it its market capitalisation is less than $150 million. This company is of interest to investors as it has strong positions in production and processing as well as exploration. As well as boasting the largest uranium resource portfolio in the US among producers, the firm has an operating capacity of over 11.5 million pounds of uranium per year and several projects that can be advanced into production relatively quickly if and when prices improve. Of particular note is the fact that Energy Fuels owns the only conventional uranium mill in the US, at White Mesa in Utah, and one of the newest uranium production facilities in the US, at Nichols Ranch in Wyoming. As a result, Energy Fuels not only has the facility to process its own conventional ore – which it is already doing – but it can also earn royalties by milling ore from other mines in the region that come online as uranium prices begin to improve. Mill licences are very difficult to come by, so it would be reasonable to assume that Energy Fuels' White Mesa mill would become increasingly valuable should the uranium sector begin to fire up again.

BERKELEY ENERGIA (LON:BKG) – WORLD CLASS POTENTIAL

Spain-focused Berkeley Energia is sitting on what looks likely to be the largest uranium mine in Europe and the eighth largest in the world. To put that into context, it has sufficient resources to power the whole of the UK's energy needs for five and a half years. What's more, management seems confident that the resource will become bigger with further work, and as such they have identified another 11 high priority targets with similar geology to the core Zona 7 area. Zona 7 itself is one of the highest grade deposits in the world, and crucially it sits near the surface, making it a potentially low cost project. Notably, the project is financially viable at a uranium price of just $15.60 per pound, which is well below even today's depressed prices. The company received a major vote of confidence in May when major shareholder Resource Capital Funds backed the company to the tune of $10 million at a premium to the then share price.

> **"AT THE PEAK OF THE URANIUM PRICE IN 2007 THERE WERE ROUGHLY 500 LISTED COMPANIES EXPLORING FOR URANIUM. THAT NUMBER HAS NOW BEEN WHITTLED DOWN BY AROUND 90%."**

How to invest

So how can investors gain exposure to the sector? UK investors may want to begin by taking a look at **Geiger Counter (LON:GCL),** a UK-listed investment company managed by New City. The fund is relatively concentrated in a handful of companies and the shares sit at an 18% discount to NAV at time of writing. Those who prefer a passive investment strategy as opposed to active managed may wish to consider the **Global X Uranium ETF (NYSE:URA), Market Vectors Nuclear Energy ETF (NYSE:NLR)** and the **iShares S&P Nuclear Index Fund ETF (NASDAQ:NUCL).** The first of these holds uranium miners exclusively whereas the latter two hold a mix of miners and utilities. As such, all three should do well if the demand for nuclear power rises significantly, but if the uranium price rises while the demand for nuclear power remains static, Global X Uranium is likely to be the best option.

Investors looking to gain direct exposure via individual mining stocks have rich pickings right now, not least because what's left standing has already been through almost a decade of falling uranium prices. At the peak of the uranium price in 2007 there were roughly 500 listed companies exploring for uranium. That number has now been whittled down by around 90%. While both **BHP Billiton (LON:BLT)** and **Rio Tinto (LON:RIO)** have significant uranium interests, by far the largest independent pure play uranium company is **Cameco (TSE:CCO),** the largest and lowest cost uranium producer in the world. Cameco is very well financed and has operations across the entire spectrum of the market, from exploration to power generation. It pays a dividend and is a solid option for those looking for a lower risk route into the uranium sector.

Investors with a higher risk tolerance would do well to investigate companies operating in Canada's Athabasca Basin, which has been producing grades in excess of 100x the global average of late. It is also home to the world's richest uranium mine, Cameco's Cigar Lake. **Fission Uranium's (TSE:FCU)** Triple R deposit at Patterson Lake South is now the single largest undeveloped uranium deposit in the Athabasca Basin among projects that have a resource estimate. Interestingly, Fission recently attracted investment from China's CGN Mining Corp., which took a 19.9% equity stake through an $82 million private placement. The deal is further evidence of China's commitment to securing its future supply of uranium in order to meet the needs of its nuclear programme. Other players to investigate include **Denizon Mines (TSE:DML),** whose 60%-owned Wheeler River project hosts two deposits with combined total resources of 113.2 million pounds of uranium, and **NexGen Energy (CVE:NXE),** whose promising Arrow deposit is growing at an astonishing pace.

BY FILIPE R. COSTA

HOW TO INVEST LIKE... GEORGE SOROS

"We were in mortal danger. People perished all around us, but we managed not only to survive but to help other people. We were on the side of the angels, and we triumphed against overwhelming odds. This made me feel very special."

— George Soros

Replacing Rationality with Fallibility

Economists have fostered a social science that seems to borrow more from Newtonian Physics than from Sociology or Psychology. In order to advance knowledge, they created a rational, fully-capable human being that always makes the best decisions. This balanced, fully-predictable behaviour allowed scientists to replace the multiplicity of individual decisions with the simplicity of the actions of one single rational being. This allowed economists, governments, central banks and many international institutions to predict the path the economy would take - and to take action every time the expected outcomes were unfavourable. Models like the Capital Asset Pricing Model (CAPM), depicting general equilibrium, were created. Man was conceived as a rational input, taking the best actions at all times; markets were seen as an efficient output, filled with prices always reflecting the discounted values of rational expectations about future earnings. But, unfortunately, this mainstream view fails to explain the many boom-and-bust episodes that mark reality, leading to the suspicion that man is a social moron rather than a rational being.

Man fails when predicting the future because knowledge is incomplete, biased and inconsistent. But such skewness influences the way people act and changes the reality in which they participate. Human action is thus much better characterised by fallibility and reflexibility than by rationality.

Most academic books are grounded on the rationality principle and on the efficient market hypothesis. If those were valid principles, the best action an investor could take would be to split his money between a risk-free asset and the market portfolio. Passive investment strategies would be far superior than any active investment strategies. But that is not always the case – otherwise I wouldn't have written about the fortunes of Benjamin Graham, Warren Buffett, Peter Lynch and John Templeton. These investors have ignored the efficient market hypothesis and the rational principle, replacing them by the fallibility principle, under which investors are bounded individuals that often just follow the herd, leading to irrational boom-and-busts that create investment opportunities.

This month, the spotlight turns to an investor that differs from those mentioned above, in the sense that he isn't a *buy-and-hold* investor picking up short-term misalignments and waiting for long-term corrections; rather, he is a short-term speculator who doesn't believe that markets correct to fundamentals, even in the long term. He is a master at translating economic trends into killer plays in the financial markets, often going in the same direction as the herd.

"GEORGE SOROS COULD HAVE DIED WHEN HE WAS 15 YEARS OLD, WHEN SOVIET AND NAZI FORCES FOUGHT DOOR TO DOOR IN 1945 IN THE CITY OF BUDAPEST."

Antonio Scorza / Shutterstock.com

The Start of a New Life

George Soros could have died when he was 15 years old, when Soviet and Nazi forces fought door to door in 1945 in the city of Budapest, during the Second World War. But he and his family managed to survive such a bloody episode that killed 38,000 in just 50 days and, at the age of 17, he emmigrated to England.

Life for the Jewish-Hungarian Soros family was not easy. During the First World War, Soros's father escaped from a Russian Prisoner of War camp and spent months trying to find his way back home through Siberia; and during World War Two, his family had to evade the Nazis on their way out of Hungary. But these risky adventures certainly had a strong influence on the future life of the young Soros, as he would set himself up as one of the most successful investors in the world. Today he sits at 27th place on the Bloomberg Billionaires list.

In 1947, George Soros went to London to study at the London School of Economics (LSE). Contrary to what many may think, his main interests have always been in the field of philosophy. While at the LSE, Soros was a pupil of Karl Popper, one of the greatest philosophers of the 20th century and a vigorous advocate of liberal democracy and open society. Soros earned a BSc in Philosophy in 1951 and an MSc in the same field in 1954, both at the LSE.

Life in London was always tough for Soros. After graduating he found it difficult to find a job and had to work as a door-to-door salesman selling fancy goods. He usually refers to this period as being the lowest point in his life.

Unhappy, Soros decided to send letters requesting job interviews to several merchant banks. Most ignored him, some humiliated him during interviews, but one hired him. His financial career started in 1954, as a bank clerk, at Singer & Friedlander.

But, Soros's abilities would soon lead him to the arbitrage department, and in 1956 he relocated to New York to work as an arbitrage specialist at F. M. Mayer, with a main focus on European equities.

Developing a Singular Strategy

In 1959, Soros moved to Wertheim & Co, as an analyst for European securities, where he stayed for four years. Always thrilled by philosophy and Popper's theories while puzzled with the postulates of economics, he started developing his own view about financial markets. He always questioned the assumptions of economic theory, in particular the perfect knowledge and the rational expectations that are often assumed in economic models. Market values are often driven by the fallible ideas of market participants and not just by the economic fundamentals of the situation. The fallibility principle assumes that knowledge is incomplete and decisions are often biased and inconsistent.

Borrowing from Popper, Soros also developed the idea that market participants are bounded by reflexivity, meaning that imperfect views lead to action and that action influences the reality in which those actions are taken. It is a feedback loop, where ideas influence events and events influence ideas. The

Bloomberg Billionaires

Rank	Name	Net Worth	Source	Age	Country
#1	Bill Gates	$87.3B	Microsoft	60	United States
#2	Amancio Ortega	$74.1B	Zara	80	Spain
#3	Warren Buffett	$67.9B	Berkshire Hathaway	85	United States
#4	Jeff Bezos	$65.4B	Amazon.com	76	Mexico
#27	George Soros	$24.7B	Hedge Funds	52	United States

* Updated on 13/July/2016

Source: Bloomberg, Bloomberg Billionaires List

Antonio Scorza / Shutterstock.com

simplification provided by mainstream economics seemed unable to explain the real world, which Soros replaced with the principles of fallibility and reflexivity.

Soros' background in philosophy along with his investment experience allowed him to perceive the mismatch between economic postulates and reality. The universal and timelessly valid laws governing reality, which mainstream economics always tried to establish, seemed unable to capture the real nature of human interaction.

In 1963, Soros changed jobs again, this time in the direction of Arnhold & S. Bleichroeder. While there he further refined his theories that would serve as the basis for one of the most successful fund management experiences for more than 40 years.

In 1966, Arnhold & S. Bleichroeder gave him $100,000 (equivalent to $730,000 today, or £555,000) to test his trading strategies in the First Eagle Fund. In 1967 the Double Eagle Fund was created, with $4 million of assets under management, including $250,000 of his own money. In 1973 the fund had grown to $12 million and Soros and Jim Rogers, who shared management of the fund, both received returns of 20% of the profits each year.

In 1970, Soros founded Soros Fund Management and became its chairman. In 1973 he resigned from management of the First Eagle Fund and offered investors in the Double Eagle Fund the option to transfer money to the Soros Fund (later renamed the Quantum Fund). He and Rogers reinvested their previous profits and a large part of their 20% management fees received while at Arnhold & S. Bleichroeder. By 1981 the fund had grown to $400 million. In 2011, Soros Fund management returned $1 billion to outside investors and was turned into a family business due to unfavourable Dodd-Frank reporting rules. By then the company had $27.9 billion (£21.2 billion) under management and was reported to have generated more than $40 billion (£30.4 billion) in profits since 1973. Over more than 40 years the Quantum Fund has generated annual returns of over 20%, beating the S&P 500 with much less volatility.

“SOROS’ BACKGROUND IN PHILOSOPHY ALONG WITH HIS INVESTMENT EXPERIENCE ALLOWED HIM TO PERCEIVE THE MISMATCH BETWEEN ECONOMIC POSTULATES AND REALITY.”

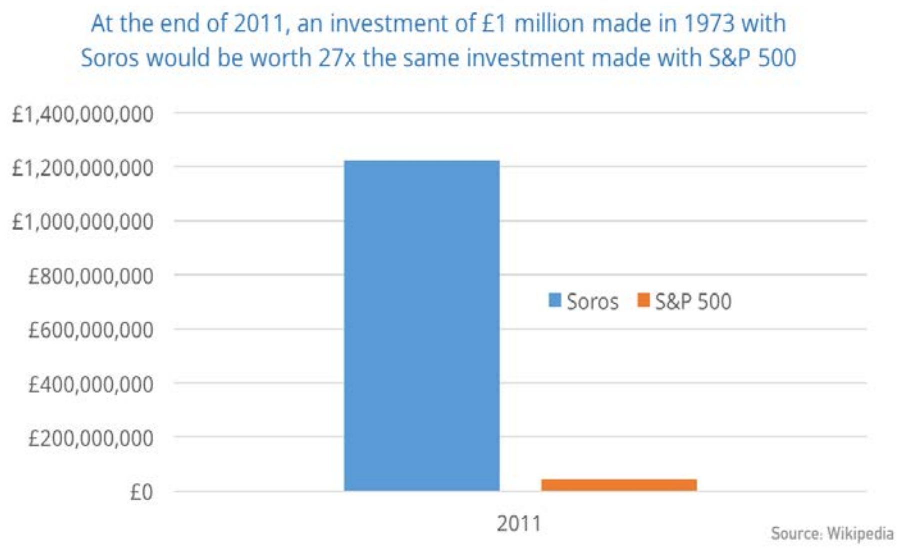
Year	Milestone
1930	Born as Gyorgy Schwartz in Budapest. The family later changes name to Soros.
1944	WW I forces family into hidding.
1945	Survives the fierce Battle of Budapest.
1947	Immigrates to England in the direction of London.
1951	Earns a BSc. In Philosophy from the London School of Economics.
1954	Earns a MSc. In Philosophy from the London School of Economics.
1956	Moves to New York, takes a job trading European equities with F.M. Mayer.
1959	Starts working on his own theory of reflexivity.
1969	Sets up a fund for Arnhold & S. Bleichroeder Advisors.
1970	Founds Soros Fund Management.
1973	Creates Quantum hedge fund with $12 million.
2011	Converts hedge fund to family office, returning $1B to outside investors.

The Man Who Broke the Bank of England

In 1992, many were those who, even if only for a moment, had wished Soros died back in Budapest: such was the mess he created at the BoE. But, while precipitating it, Soros wasn't the main reason why the BoE went bust that year.

In October 1990 the pound entered into the European Exchange Rate Mechanism (ERM) at deutschemark 2.95 to the pound, while the lower bound for pound movements was set at deutschemark 2.773. By then, conditions in the UK were not favourable as inflation was triple that of Germany and interest rates were already very high. The double deficit problem of the UK combined with increases in interest rates in Germany were pressing the pound down. But the ERM inhibited an adjustment and necessitated a huge intervention from the central bank instead.

In 1992, Soros thought that a devaluation was unavoidable because of the weak economic conditions at the time. Other options, like raising interest rates in an already fragile economy or purchasing sterling with limited foreign reserves, would not work well. Soros then took a large speculative bet against the BoE's ability to keep the pound inside the allowed fluctuation margins, selling £6.5 billion against the deutschemark and the French franc. The BoE tried to purchase sterling with its foreign reserves and temporarily raised interest rates but ended up leaving the ERM forever. The BoE lost its reserves, the pound devalued, and Soros made around £1 billion in profits.



Investment Strategy

Interestingly, George Soros (under review this month) and John Templeton (under review last month) do share a peculiarity in terms of books written: they both received inspiration outside of economics or finance. In Templeton's case, it was spirituality matters that inspired him and in Soros's case it was philosophy that helped him develop a sound financial theory. But while this may sound strange, it is when different subjects are brought together that the most significant advances in knowledge occur.

> **"BIDDING AN UNREASONABLY HIGH PRICE ON SOME EQUITY MAY IN FACT LEAD TO IMPROVED FUNDAMENTALS THAT THEN JUSTIFY HIGHER PRICES. UNDERSTANDING THIS MECHANISM IS KEY TO SOROS' STRATEGY."**

It is a tough exercise to summarise a philosophically-grounded theory in a list of investment principles, but we can, at least, highlight some of the basic rules that are behind Soros's successful trading.

First of all, **(1) price is almost always wrong.** Human action is fed by bounded-rationality, resulting in biased actions that lead to certain events that influence future action and future events in a feedback loop. Only by coincidence would prices match fundamentals at any one point. In contrast to behavioural theorists, which consider the cognitive fallibility leading to mispricing, Soros also takes into consideration that **(2) there is reflexivity in human action.** It is not just a matter of being unable to take the right action but a matter of taking into consideration that the actions taken by people (even when they're wrong) do influence the future prospects of a company, for example. So, to a certain extent, bidding an unreasonably high price on some equity may in fact lead to improved fundamentals that then justify higher prices. Understanding this mechanism is key to Soros's strategy.

Within the notion of permanent mispricing we reveal a gap between Soros and the value investors reviewed over the past several issues of Master Investor. Soros usually **(3) looks for trends, largely ignoring fundamentals.** As price is wrong most of the time, one shouldn't buy at a discount and wait for prices to converge to fundamentals, because that may never occur. Instead, Soros follows short-term trends and takes care to get out out before they are exhausted. In order to follow trends, investors need to **(4) look at volatility.** Short-term volatility is largest at turning points and diminishes as the trend becomes established. When all market participants have adjusted, the rules of the game change again.

Finally, Soros is an expert at making massive short-term bets on the movements of financial securities based on macroeconomic analysis, because he is a master at **(5) understanding politics and its influence.** He grounded his bets against Europe on the flawed decisions taken by politicians at the inception of the Euro, and explained why these decisions created an incentive for banks to hold government bonds as if they carried no credit risk at all.

Final Words

While some level of abstraction is needed to develop quantitative models and advance knowledge, social scientists often forget the real nature of the human being and therefore fail to predict the outcome of the interaction between people and the reality in which they participate. Instead of departing from equilibrium, we should depart from disequilibrium, which is the most common state of the market. Prices are certainly influenced by fundamentals but they are also the result of sentiment. Soros admits that a simple backache would be enough for him to give up purchasing equities.

The best results from investment are obtained when we are able to bring some life back to models, by including the social features they often fail to discount. Behavioural finance recognises the fallibility feature, but through adding Karl Popper's reflexivity principle to the model, George Soros is able to go a major step forward in explaining not only why prices may depart from fundamentals but how this departure can influence those fundamentals.

BY JOHN KINGHAM

THE DIVIDEND HUNTER

LOOKING FOR A BUBBLE IN CONSUMER DEFENSIVES

Some of the biggest gainers from the UK's decision to leave the EU were internationally-focused consumer defensive stocks. This comes on the back of what has already been a multi-year bull run for consumer defensives as investors look for low risk yield in a post financial crisis world.

Like most dividend investors I am a fan of these often boring but steady growth companies. However, the value investor in me is always wary of sharply rising share prices and general enthusiasm from other investors. And now with so much post-Brexit popularity, cheerleading and soaring share prices going on, I think the time is right to ask whether consumer defensives have become the latest bubble.

Strong brands, wide profit margins and consistent growth

Consumer defensives are often summarised with the phrase "small ticket, repeat purchase". That's because they sell products that are inexpensive for the customer and are bought on a regular (but not necessarily frequent) basis. So think of things like beer, washing-up liquid, headache tablets and so on. These are all small items which are purchased on a recurring basis.

With low price products price is not always a key factor in the customer's decision-making process. Instead, for many people it is more important that the result of their purchase will be as expected – i.e. that the beer tastes nice and the washing-up liquid is effective. When consistency of outcome is more important than price many people will just choose a product they have used before, or know is used widely by other people. This leads to products with well-known brands such as Pepsi or Dettol being consistent top sellers, even if they are more expensive than functionally equivalent products with unfamiliar brands.

> **“SELLING PRODUCTS WITH STRONG BRANDS AND SLIGHTLY HIGHER PRICES ALLOWS THE BEST CONSUMER DEFENSIVE COMPANIES TO MAINTAIN WIDE PROFIT MARGINS.”**

Selling products with strong brands and slightly higher prices allows the best consumer defensive companies to maintain wide profit margins. That in turn allows them to invest in advertising which drives more brand awareness and loyalty which leads to more sales at high margins.

The result of this virtuous circle is above average profitability, growth and consistency over long periods of time, which is of course very appealing to those of us who are partial to progressive dividends.

To find evidence of a bubble I'll be looking at a collection of consumer defensive companies which focus on these strongly branded and higher margin products. These companies are: **A G Barr (LON:BAG), Britvic (LON:BVIC)** and **Diageo (LON:DGE)** from the Beverages sector; **Reckitt Benckiser (LON:RB.)** from the Household Goods sector; **PZ Cussons (LON:PZC)** and **Unilever (LON:ULVR)** from the Personal Goods sector; and **British American Tobacco (LON:BATS)** and **Imperial Brands (LON:IMB)** from the Tobacco sector.

Estimating future returns from yields and growth

One way to check for a bubble in a particular group of stocks is to look at dividend yields and historic growth rates, combine them into a simple estimate of future returns and then compare the result against the market average. If the group's estimated future returns are far below the market's, then we could be looking at a bubble.

In terms of dividend yield, those eight companies have an average yield of 2.8%. The FTSE 100, as a reasonable market benchmark, has a yield of 3.8% at the time of writing (with the index at 6,670).

On average then, these companies are relatively low yield and almost every one of them has a lower yield than the FTSE 100. Of course that's fine if those companies can produce enough growth in the future to offset their relative lack of yield today.

Turning to growth, the average ten-year growth rate of those companies (measured across revenues, earnings and dividends) is 7.3% per year. In comparison, the FTSE 100's growth rate has been much lower at just 1.7% per year. That is a striking difference.

However, the FTSE 100's ten-year growth rate is impacted somewhat by the volatile booms and busts of recent years which haven't impacted consumer defensives to anything like the same extent. In other words, ten years ago the FTSE 100's earnings were riding high on the back of a commodities and banking boom and now both of those sectors are at low points in their respective cycles. Measuring growth from a high point ten years ago to a low point today may not be the best way to estimate the index's future growth.

One way around this is to look exclusively at the FTSE 100's dividend growth rate, which has been a more respectable 4.8% over the last ten years.

Using those figures we have a picture of consumer defensives as low yield, high growth companies (2.8% yield and 7.3% growth) and a higher yield, lower growth market average (3.8% yield and 4.8% growth).

Adding those together gives a simplistic estimate for future total returns of 10.1% per year for that basket of consumer defensives and 8.6% for the FTSE 100. Of course the future is unlikely to be so easy to predict, but I

Company	Index	Sector	Price (£)	Yield	10-Yr Growth
Barr (A G) PLC	FTSE 250	Beverages	5.15	2.6%	8.7%
Diageo PLC	FTSE 100	Beverages	20.98	2.7%	7.3%
Britvic PLC	FTSE 250	Beverages	6.13	3.8%	8.4%
Reckitt Benckiser Group PLC	FTSE 100	Household Goods	74.74	1.9%	7.3%
Unilever PLC	FTSE 100	Personal Goods	35.84	2.5%	4.4%
PZ Cussons PLC	FTSE 250	Personal Goods	3.22	2.5%	6.6%
British American Tobacco PLC	FTSE 100	Tobacco	48.35	3.2%	6.2%
Imperial Brands PLC	FTSE 100	Tobacco	39.92	3.5%	9.8%

"TO GET INTO BUBBLE TERRITORY I WOULD EXPECT THESE DEFENSIVE STOCKS TO HAVE MUCH LOWER YIELDS THAN THE ALMOST 3% AVERAGE WE SEE TODAY."

think that's a reasonable way to build a big picture overview of the situation.

So what does this mean in plain English? Well, if this basket of consumer defensive stocks keeps growing for the next 20 years as they have over the past ten, then investors could see double-digit annualised returns despite low current yields from these stocks. In contrast, FTSE 100 investors might see long-term returns of around 8-9%, which is slightly above average for that index (and assuming inflation stays fairly close to 2%).

Given that a reasonable argument can be made that consumer defensives might outperform the wider market over the next decade, I don't think there's a bubble. To get into bubble territory I would expect these defensive stocks to have much lower yields than the almost 3% average we see today; perhaps as low as 1% or 2%, I don't know, but certainly lower than they are today.

Having said that, as a group these stocks are clearly not in bargain territory either and nor should they be. Instead the group seems to sit somewhere in the middle between bubble and bargain, being neither a no-go zone for sensible investors nor akin to shooting fish in a barrel. Since there is no obvious bubble we may instead have a Goldilocks situation; some of these companies are expensive, some are cheap and some are priced just right. So a good follow-up question to the bubble question is: which are expensive and which are cheap?

Too expensive: Unilever and PZ Cussons?

According to my stock screen, two stocks which appear to be closer to bubble territory than the others are Unilever and PZ Cussons, both of which operate in the Personal Goods sector. These companies epitomise consumer defensives with products like Domestos, Dove and Surf (from Unilever) and Imperial Leather, Carex and Original Source (from PZ Cussons).

Emilio100 / Shutterstock.com

Both companies have produced consistently excellent results for shareholders over many years. However, recent share price gains seem to have gotten ahead of each company's financial results.

For example, Unilever's current share price of just over 3,500p has increased by about 100% since its pre-financial crisis peak of around 1,750p. However, in that time its revenues, earnings and dividends have only increased by around 40%, 28% and 73% respectively, so the share price has definitely grown faster than the company, even when measured from the previous valuation peak.

This leaves Unilever with a dividend yield of 2.5%, even though its growth rate over the past decade (averaged across revenues, earnings and dividends) is just 4.4%. If it continues to grow at that sort of pace then Unilever investors might see annualised total returns of approximately 7% (2.5% + 4.4%), which is unlikely to be significantly better than the return from an index tracker. On that basis I would say that Unilever is the most likely of these stocks to be overpriced.

The story for PZ Cussons is slightly different and less obvious. Its current price of 320p has improved on its pre-crisis peak of around 200p by 60% or so, but that increase has not outstripped growth in revenues, earnings and dividends over the same period (42%, 88% and 87% respectively). So unlike Unilever, PZ Cussons' share price hasn't leapt ahead of its fundamental performance despite the growing popularity of defensive stocks.

Its expected return is also much better than Unilever's. The dividend yield is low at 2.5% but the company's average growth rate has been a respectable 6.6% a year over the last decade. Using the previous yield-plus-growth model this produces an expected future return of around 9% a year, which is not too bad. There are downsides though, not least of which is that revenues and earnings are down from their peaks of a few years ago and dividend growth seems to be inching towards zero.

"I THINK A G BARR IS WORTH INVESTIGATING IN MORE DETAIL IF YOU'RE LOOKING TO ADD SOME DIVIDEND GROWTH STOCKS TO YOUR DIVIDEND PORTFOLIO."

Of course this is a fairly superficial picture for both these stocks, but at first glance it does seem that a 2.5% yield from these companies is probably too low and their share prices probably too high.

Too cheap: Britvic and A G Barr?

At the other end of the scale are A G Barr and Britvic, both from the Beverage sector. Their brands include IRN BRU and Tizer (from A G Barr) and Robinsons and R Whites (from Britvic). Although not exactly screaming bargains (their yields are no better than the market average) my stock screen suggests they are the most attractively valued companies in this group.

A G Barr, for example, has a yield of just 2.6% which is barely better than Unilever's, but it combines that yield with impressively consistent and rapid growth of almost 9% a year. This gives a simple estimate of future returns of almost 12% a year, which would be very welcome from such a defensive stock. So why has the market assigned A G Barr a dividend yield equal to Unilever's even though its historic growth record is significantly better?

One reason could be that growth has been slower more recently, although the dividend was still increased by 10% at the last annual results. The current trading environment is described by management as "difficult" and "not expected to substantially change", partly as people move away from drinking high sugar fizzy drinks such as IRN BRU towards healthier options. A newly proposed sugar levy to nudge people away from high sugar drinks is not exactly welcome news for the company either. Despite these issues I think A G Barr is worth investigating in more detail if you're looking to add some dividend growth stocks to your dividend portfolio.

Britvic is more obviously cheap as it has a dividend yield of 3.8%, almost exactly matching the FTSE 100's yield. However, unlike the large-cap market's growth rate of 4.4%, Britvic has managed to grow at 8.4% a year, giving it a yield-plus-growth estimate of returns some 4% a year better than the market average. Of course, whether or not that actually happens is a different matter, but that is exactly the sort of attractive picture I like to see before diving into a more detailed investigation.

Of course Britvic has issues – otherwise it wouldn't be attractively priced. Growth has been slower in recent years and the company has a considerable debt pile of more than £600 million compared to average post-tax profits in recent years of just £90 million. Despite these issues, with a 3.8% yield Britvic is clearly not at bubble valuations.

So while consumer defensives have recently enjoyed a run of some considerable success I don't think that as a group they're in a bubble. Instead some are expensive, some are fairly priced and in all likelihood some are cheap enough to be worthy of investment.

BY NICK SUDBURY

FUNDS IN FOCUS

THE BEST POSSIBLE BREXIT

THE BEST AND WORST PERFORMERS AFTER BREXIT

The surprise result of the EU referendum sent shockwaves through the financial markets and created a huge amount of volatility. You would normally expect a diversified fund to be relatively immune to this sort of turbulence, but there have been some huge price swings with double digit gains and losses in some of the most affected sectors. Investors will need to be at the top of their game over the next few months as the picture starts to clarify.

Hargreaves Lansdown published a list of the best and worst performing funds in the first week after the referendum and it makes for interesting reading. The main beneficiaries were funds that invest in gold producers such as **WAY Charteris Gold Portfolio, BlackRock Gold and General** and **Junior Gold**, with gains in excess of 18%. This was due to the increase in the USD/GBP exchange rate – which also helped many global funds – and the rise in the price of gold.

The biggest casualties were UK funds with a large exposure to the domestic economy such as **Threadneedle UK Mid 250, Elite Webb Smaller Companies Income & Growth** and **CF Miton UK Value Opportunities**, with losses in excess of 11%. The latter was especially vulnerable as the management entered a transition period on June 27 ahead of the switch from Georgina Hamilton and George Godber to Andrew Jackson.

> **"UK SMALL AND MID-CAP FUNDS WOULD BE THE MOST VULNERABLE IF THE BRITISH ECONOMY SUFFERS AS A RESULT OF THE UNCERTAINTY OF HOW THINGS ARE GOING TO WORK POST-BREXIT."**

Jackson, who had previously run the **Ecclesiastical UK Equity Growth** fund, will probably look back on it with mixed feelings as the fund fell 12% in June, although most of the decline will be attributed to his predecessors. In their review of the second quarter they said that they didn't speculate on the outcome of the referendum, but drew up a battle plan for each eventuality.

In many ways it all sounds a bit naïve, as they identified the stocks most at risk and set price limits to sell them as long as they were down less than 7% on the first day after the vote and were 14% lower (cumulatively) after the first two days. This sort of strategy only makes sense if you expect further losses or anticipate a large

number of client redemptions, which highlights the structural problem of open-ended funds.

UK small and mid-cap funds would be the most vulnerable if the British economy suffers as a result of the uncertainty of how things are going to work post-Brexit. To some extent this has already been priced in, especially with investment trusts like **JPMorgan Mid Cap (LON:JMF)** that are trading on larger discounts to NAV than normal. It is a pure judgement call whether you increase or reduce your exposure to this area.

Property woes

The problems were even worse in the direct property sector, where open-ended funds such as **Aberdeen UK Property, Aviva Investors Property Trust, Henderson UK Property, M&G Property Portfolio** and **Standard Life UK Real Estate** have all had to suspend dealing at one point or another since the referendum.

These sorts of 'bricks and mortar' funds maintain fairly high cash weightings to provide an element of liquidity for investors who want to redeem their holdings, but the money wasn't sufficient to allow everyone to leave at the same time.

In order to protect those who want to stay, the funds have applied a fair value adjustment of between 4.5% and 10% to reflect the fall in the net realisable value of the properties in case they become forced sellers to meet the high level of client redemptions. Some have also switched from offer to bid pricing.

Closed-ended property funds don't have the same problem as their shares are traded on the London Stock Exchange without any cash flow implications for the underlying portfolios. This didn't stop the share prices from collapsing after the referendum, but in some cases the correction went too far and created a buying opportunity.

A good example is the **F&C Commercial Property Trust (LON:FCPT)** whose shares fell from 126.5p to 102.1p over the first two days following the referendum. They have since recovered to 123p, which looks like fair value given the 9% discount to the estimated NAV. Any further weakness could represent a buying opportunity, especially in view of the 4.9% yield and monthly distributions of 0.5 pence per share.

FCPT owns a high quality portfolio of 37 buildings including retail and office space in prime Central London locations, as well as offices and retail warehouses elsewhere in the country. At the end of December the average unexpired length of lease was 6.9 years, which provides a degree of certainty over its rental income.

Another possibility is the **TR Property Investment Trust (LON:TRY)**, which invests in UK and European property securities rather than the actual bricks and mortar. This was down from 306.5p on June 23 to 286p at time of writing and was trading on an 18% discount to NAV, which is twice the average discount over the last 12 months. Its largest holdings include the likes of Unibail-Rodamco, Land Securities and Derwent London.

Peerless performance?

One area that hasn't recovered is the peer-to-peer investment trust sector. These funds provide exposure to a diversified portfolio of peer-to-peer loans and have been written down because of the potential impact of an economic slowdown on bad debts. Many of these funds offer really high yields and could come back into favour when savings account rates fall even closer to zero.

The largest example is **P2P Global Investments (LON:P2P)** with a market value of £709 million. This was listed on the London Stock Exchange in June 2014 and aims to generate an attractive level of dividend and capital growth from a portfolio of more than 140,000 peer-to-peer loans in the UK, US and Europe. The shares were trading at 874p before the referendum, but have slipped to 825p at time of writing. This puts them on a discount to NAV of 18% and gives them a prospective yield of over 7% with quarterly distributions.

There are also a number of other similar funds operating in the same area with most of them adversely affected by the referendum. For example, at time of writing, **VPC Speciality Lending (LON:VSL)** and **Funding Circle SME Income (LON:FCIF)** – which lends to small businesses – were both yielding 6%. It is difficult to find these sorts of yields elsewhere, although it has to be regarded as a high risk area.

"CLIENTS OF HARGREAVES LANSDOWN USED THE TURMOIL IN THE FIRST WEEK AFTER THE REFERENDUM TO TOP UP ON SOME PERENNIAL FAVOURITES."

The attraction of investing in one of the funds rather than making the loans yourself via a peer-to-peer platform is that you can achieve a much greater level of diversification and benefit from the due diligence of the managers in choosing the right borrowers, but the main downside is that the shares can be negatively affected by market sentiment and trade at a large discount to NAV.

Tried and tested

Buying after a market sell-off is often a good strategy, although it takes a lot of nerve and you have to be prepared for some initial losses before things turn around. Clients of Hargreaves Lansdown used the turmoil in the first week after the referendum to top up on some perennial favourites including **CF Lindsell Train UK Equity, CF Woodford Equity Income** and **Fundsmith Equity**.

Nick Train, who runs the £2.4bn CF Lindsell Train UK Equity fund, is a long-term investor and stressed the importance of looking beyond the short-term volatility created by Brexit in his June update. This was despite some huge price swings in his holdings with the likes of Unilever, Diageo and RELX all shooting up in value, whereas Schroders dropped 13%.

Neil Woodford also urged investors to remain calm and in a video blog posted on his website said that the vote "doesn't really change anything fundamental". Woodford also pointed out that "We've been cautious on the UK economy, and the global economy, for some time". Woodford doesn't think that the economic implications will be as bad as people think and remains confident about the prospects for the businesses that he invests in.

Another popular fund is the £4.6bn Fundsmith Equity, which is run by the outspoken Terry Smith. Smith had been an ardent leave campaigner and argued that a fall in the pound would be good for the global companies that he invests in because a large part of their earnings are not denominated in sterling. His fund rose 8.3% in June mainly because of the weakness in the GBP/USD exchange rate.

Train, Woodford and Smith have all proved themselves in a variety of market conditions and each should provide a safe pair of hands to navigate investors through the difficult months ahead.

The same could also be said of Sebastian Lyon, who runs the **Troy Trojan** fund. This defensively orientated portfolio aims to grow its capital and income in real terms over the longer term while protecting investors' wealth. Lyon's unusual combination of cash, index-linked bonds, gold and good quality equities rose 4.9% in June and he was comfortable enough not to make any changes to his holdings.

The next few months

It has been an extraordinary few weeks. From close on June 23 to close on July 20 many of the specialist gold funds were up by more than 30%, closely followed by some of the emerging market funds, whereas property investors were facing losses in excess of 15%.

The promise of further monetary stimulus from the Bank of England and the appointment of a new Chancellor of the Exchequer who is willing to scale back the government's austerity programme has calmed the markets, but we have yet to see any hard economic data covering the post referendum period.

I suspect that the extra monetary and fiscal stimulus will help to push markets higher in the short term, but as the economic data comes out over the next few months there will be a lot more volatility with domestically focused funds and the pound coming under renewed pressure.

Long-term investors might want to use the dips to top up the holdings in their core funds, while those with a more active approach may be able to pick up a few bargains among the closed-ended funds operating in the mid-cap, peer-to-peer and property sectors. Whatever your view going into the referendum, we are all Brexiteers now.

BY RICHARD GILL, CFA

FROM ACORNS TO OAK TREES

THE TREND IS YOUR FRIEND

TIME TO GET ON BOARD THESE SMALL CAP MOMENTUM STOCKS?

Momentum investing is a technical analysis based strategy whereby investors look to make money from the continuation of an established trend. They could look at a share that has consistently risen in price over a period of time, typically for at least three months, and put their money into it in the hope of the momentum carrying on into the future. Conversely, they could look at stocks which have consistently fallen in value and hope to make a profit by going short. The theory behind the strategy is that it is more likely for a share price to carry on in the same direction than it is to reverse – in other words, "the trend is your friend".

> **"LOOKING AT A CHART OF A RISING SHARE CAN FLAG UP A COMPANY WHICH IS POTENTIALLY DOING WELL."**

Momentum investing differs somewhat from value investing, a strategy with which I am more familiar and use more often. While a momentum approach tells you to buy when a share is at a high level, in contrast, value investment often flags up a buying opportunity in shares which have fallen to periodic lows. And momentum investing often focusses on investor sentiment as opposed to the fundamental operational performance of a company (the latter being the speciality of value investors).

While I am typically averse to technical based investment strategies, being trained in classical fundamental approaches, I do see some value in momentum analysis. Looking at a chart of a rising share can flag up a company which is potentially doing well operationally and consequently reaping the rewards via a higher share price. Conversely, the chart of a falling share can help to identify companies which are potentially in trouble. But in my opinion this should only be used as an initial screening tool and should always be followed up with good old fashioned fundamental number crunching and company analysis.

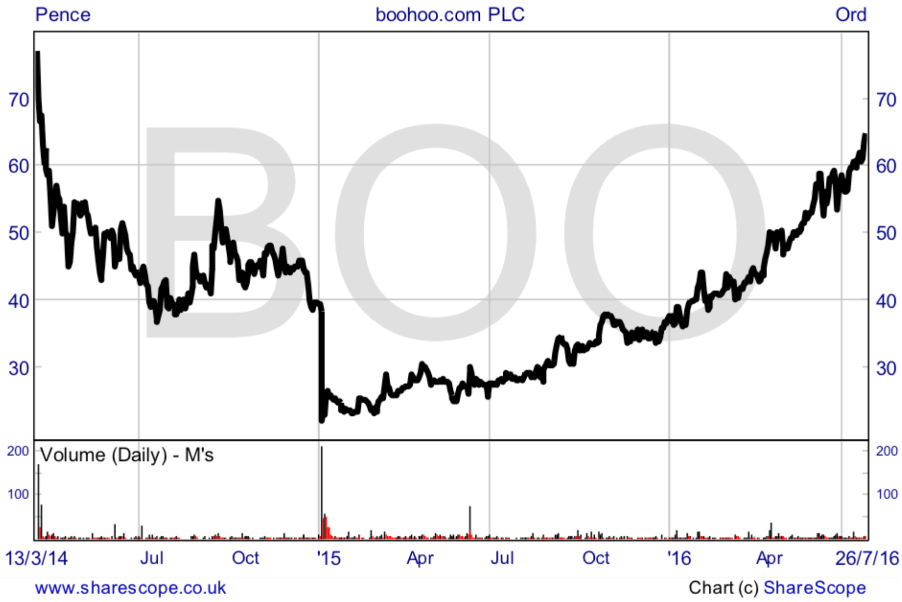
Here follows three AIM listed companies which have been showing good positive share price momentum recently. But are they set to go further or have they been pumped up by nothing more than sentiment and hype?

BOOHOO.COM

A rather overused phrase within the investment media is "the next ASOS", often used to describe companies which have the potential to make multi-multi bagging returns, just like the online fashion retailer. It is perhaps used most appropriately for **boohoo.com (BOO)**, a rapidly growing company

which also runs an online fashion business, but focusses on the cheaper end of the market.

Boohoo listed on AIM in March 2014 with the eye watering valuation of £560 million. This represented a multiple of 218 times historic profits but was seen as realistic by many investors given the rapid growth being seen, along with a net £50 million being raised at IPO for further expansion. The shares closed the first day of dealings at 77p, up by 54% on the 50p IPO price. With big promises being made and a high valuation, boohoo was set up for a share price plunge should anything go against expectations.



boohoo.com TWENTYFOUR | SEVEN | FASHION

Unfortunately for investors things did not quite go to plan, with the company announcing in January 2015 that growth had slowed as a result of heavy promotional activity within the industry. Consequently the shares did plunge, to an all time low of 22p. Since then, however, we have seen a consistent uptrend, with strong momentum taking the shares back up to the current 68.75p.

A BOOming business

Founded ten years ago, boohoo.com is one of the largest pure play online fashion retailers in the UK, selling its own-brand clothing, shoes and accessories around the world to a core demographic of consumers aged 16-24. The company designs and sources its own products and fulfils orders from a 525,000 square foot warehouse in Burnley, with another 275,000 sq ft currently being added to support expected growth. While the UK is the company's primary market, just over a third of sales now come from overseas. Between the 2012 and 2016 financial years (to February) revenues grew at a compound annual rate (CAGR) of 61%, with pre-tax profits up by a CAGR of 182%. This has been achieved by the company taking advantage of the growth in online retail, having a sharp eye for fashion trends, using social media to excellent effect, and being supported by a highly efficient operating structure.

The latest update from boohoo came at the start of June and reported that revenues had grown, slightly ahead of expectations, by an impressive 41% to £58.2 million in the three months to May. Growth was strongest in the UK, with sales up by 42% at £37.4 million following a good performance from third party sales, with overseas sales not far behind at 38%. While gross margins slipped slightly due to planned investments, active customer numbers grew by 30% to 4.2 million and net cash stood at £61 million at the period end. For the full year to February 2017 sales growth is forecast to be between 25% and 30%, with profit margins in line with the previous year.

BOOm or bust?

With the markets having regained confidence in boohoo following a strong trading performance since the 2015 profits warning, the shares are back up to dizzy heights. They are now ahead of many broker target prices and even ahead of the 65p target set by broker Liberum as recently as the beginning of July. With the business now capitalised at £772 million it is the 12th largest currently listed on AIM.

> **"BOOHOO.COM IS ONE OF THE LARGEST PURE PLAY ONLINE FASHION RETAILERS IN THE UK."**

On market consensus forecasts for 1.43p of earnings this financial year boohoo trades on a racy multiple of 48 times earnings. This falls to 39 times for 2018 on forecasts for 1.78p of earnings, with the price to earnings growth (PEG) ratio for the year also being high at 1.6 times (1 is generally considered fair value for a growth company). There is no dividend with boohoo but that is what you would expect for a growing business which is continuing to invest in further expansion.

So boohoo shares are clearly expensive.

But the company is very good at what it does and has significant amounts of financial backing to grow further. The company reminds me somewhat of ASOS around 2009/10 – the time its own shares really started to take off. Incidentally, ASOS shares currently trade on a multiple of 76 times market forecasts for the current financial year. So on that basis boohoo could have a lot further to go, especially given that it makes higher profit margins than ASOS and looks to have better growth potential given its smaller operations.

Overall, while I would not usually be attracted to shares which are so expensive, boohoo does look like it has a number of factors going its way, especially the opportunity for more international growth. **With the proviso that the shares continue to look exposed to a sharp decline if there is any slowdown in growth, I believe they look worthy of a highly speculative buy.**

CALEDONIA MINING

Gold has had a strong run so far in 2016. The precious metal has risen by 26% in the year to date (to a 24 month high) as investors have moved towards safe haven assets in the midst of global political and financial uncertainty. This has resulted in some stunning share price gains from a number of gold mining companies, as the rising price has a powerful gearing effect on their profits. **Randgold Resources (RRS)** for example is the third best FTSE 100 performer so far this year, having more than doubled in value.

Junior gold miners have also performed well, with many having posted three digit gains in just under six months. My particular small cap pick is **Caledonia Mining (CMCL)**, a company which I covered on the Master Investor blog in November last year when the shares were trading at just 43p. After a strong run they now trade at 89.5p. But is there further to go?

Caledonia is the 49% owner of the Blanket gold mine in Zimbabwe which it bought from Kinross Gold in 2006. The other 51% is owned by various parties under Zimbabwe's Economic Empowerment Act. Blanket has a long history of production, having delivered its first gold in 1906 and passing the million ounce mark in 2005. A recent resource update from the mine reported total Measured and Indicated Resources of 660,879 ounces, along with 622,613 of Inferred Resources, for a grand total of 1,283,492 ounces.

Following the suspension of activities in 2008 due to financial and political troubles in Zimbabwe, Caledonia has since restarted production and put in place a new mine plan at Blanket with the aim of steadily increasing production over the next few years. Under the plan, Caledonia is investing around $65 million in order to ramp up production to c.80,000 ounces of gold per annum by 2021 (up from 42,806 ounces in 2015).

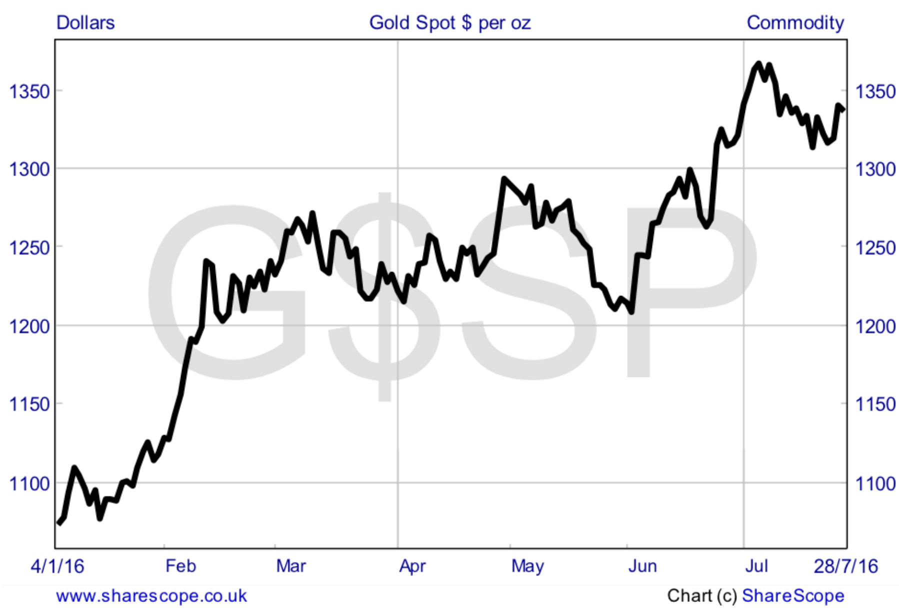
The focus is on improving infrastructure in the underground operations in order to increase gold production from below the 750 metre level. As a result, significant economies of scale are expected to be realised as the cost base is spread over higher production ounces. The company's most recently reported all-in sustaining cost of production (the cost incurred in the complete mining lifecycle) was $950 an ounce, but this is targeted to fall to below $750 in 2018 as a result of the investment. So higher production and lower costs will work together to significantly boost profits.

All going to plan?

When the revised mining plan was initially published in 2014 it was envisaged that all capex would be funded from Blanket's internal cash flows, Caledonia's unused credit facilities and cash balances. However, with the gold price falling below $1,200 an ounce in the second half of 2015 Caledonia had to put an additional $5 million from its own reserves into the capital spending plan.

Aside from that minor hiccup, on the operational and production front all seems to be going well. Caledonia's latest quarterly update (for the three months to June) reported production of 12,509 ounces of gold. This was up by 20% compared to the same period in 2015 and up by 16% on the gold produced in the previous quarter as higher grade material below 750 metres was accessed. With quarterly pro-

"HIGHER PRODUCTION AND LOWER COSTS WILL WORK TOGETHER TO SIGNIFICANTLY BOOST PROFITS."



Central Shaft Project: Source Caledonia Mining

duction expected to increase steadily to 14,000 ounces by Q4, Caledonia looks on track to hit its 50,000 ounce target for the full year.

Golden opportunity?

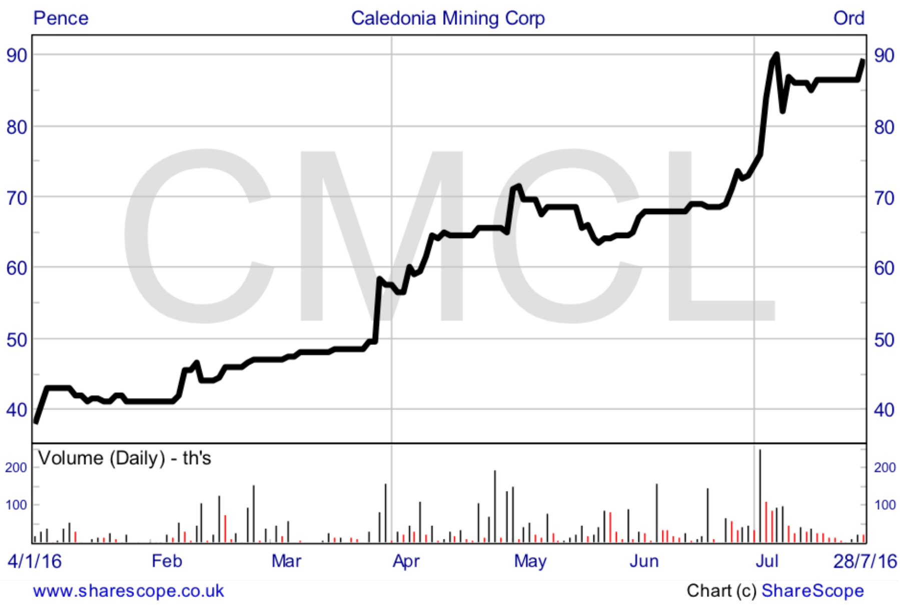
Following this year's surge Caledonia Mining shares are now trading at a three year high, with the company capitalised at £46.7 million. Net cash of $8.8 million (£6.68 million) backs a significant proportion of the market cap and should steadily increase over the coming years as production rises, costs come down and capital investment under the mining plan falls.

"PERHAPS SURPRISINGLY FOR A SMALL CAP MINER, CALEDONIA ALSO HAS INCOME ATTRACTIONS VIA ITS QUARTERLY DIVIDEND PAYMENT."

Despite the price rise I believe that the shares still look cheap. They trade on a multiple of just 5 times market earnings forecasts for the current year and around 2.5 times 2017 forecasts. Analysts at Edison have a 105p valuation for the shares based on a gold price of $1,200, which implies upside of 17%. However, with gold currently priced at $1,342 I see significant further upside potential here.

Perhaps surprisingly for a small cap miner, Caledonia also has income attractions via its quarterly dividend payment. The latest payment, announced on 5th July, was US$0.01375, representing an annual payment of 5.5 cents. This was increased by 22% as a result of management's confidence in earnings growth. At current exchange rates the annualised payment equates to 4.17p per share, or an attractive yield of 4.66%.

With the caveat that the company's earnings are highly exposed to changes in the gold price, Caledonia Mining shares look like a quality buy.



FISHING REPUBLIC

My final momentum stock is one of the best small cap performers of the past six months.

Fishing Republic (FISH) is one of the largest retailers of fishing tackle in the UK, joining AIM in June 2015 with the ambition of consolidating the fragmented tackle market. The company currently has a chain of 10 stores, mainly located in the north of England, along with a fast growing online presence which sells over 18,500 products. I first took a look at the company exactly one year ago in the August 2015 edition of Master Investor Magazine when the shares were trading at 19.25p. While they trod water for nine months or so, in March this year they really started to fly, rising to the cur-

"INVESTORS WHO BOUGHT SHARES AT 19.25P FOLLOWING MY FIRST ANALYSIS OF THE COMPANY MIGHT BE TEMPTED TO BANK THEIR CURRENT PAPER PROFITS OF 129%."

Nice tackle. Source: Fishing Republic

rent price of 44p and commanding a market cap of £16.6 million.

The business hasn't been floundering

Fishing Republic has progressed on a number of fronts since its IPO. In the second half of 2015 the company kicked off its store expansion by finalising plans to open new stores in Birmingham and Crewe, and also upgraded its outlet in Hull to larger premises. Then in December it made its first acquisition as a public company, buying the business and assets of FishXL, which trades as Cotswold Angling, in conjunction with a £0.5 million placing. Operating near Swindon, the deal gave Fishing Republic its first presence in the south of England. The business was bought for £0.17 million and brought with it £0.43 million of historic annual revenues.

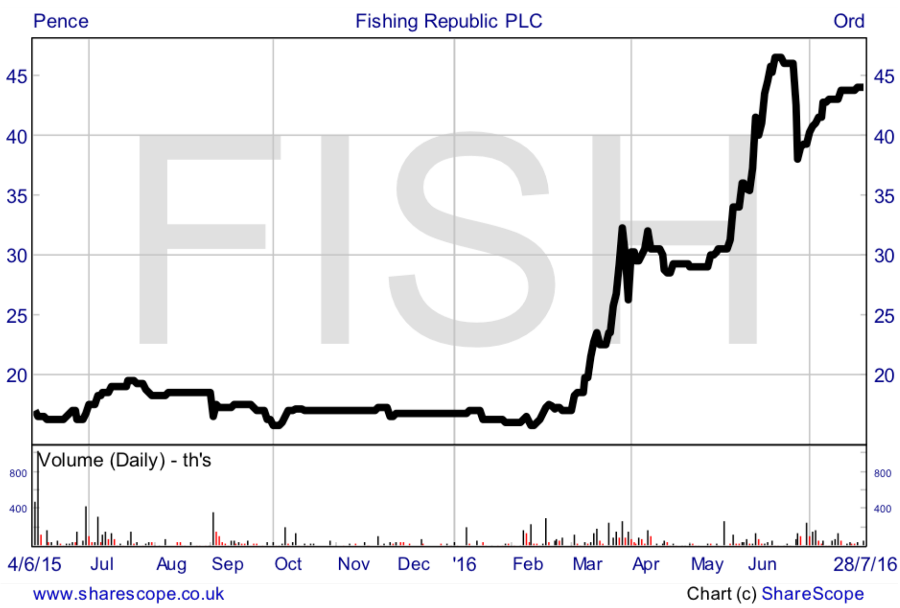
Fishing Republic's results for the year to December 2015 showed encouraging progress, with revenues up by 22% at £4.12 million. More notably, sales in the second half were up by a more pronounced 45% on a year-on-year basis and online sales grew by an impressive 30%. Pre-tax profits, however, were up by just 3% at £305,000 (before the costs of the IPO) due to higher corporate and marketing costs. The last update we have had on trading reported that the first quarter (traditionally the quietest) was in line with expectations. More recently, in June this year Fishing Republic completed another placing, this time raising £3.75 million at a price of 35p per share, with the fundraising said to be heavily oversubscribed. A notable addition to the shareholder list following the placing was Sir Terry Leahy, former CEO of Tesco. The funds add to net cash of £0.38 million as at 31st December and will mainly be used to develop the online platform, advance the digital strategy and support further store openings and acquisitions.

Is there a plaice for the shares in your portfolio?

Investors who bought shares at 19.25p following my first analysis of the company might be tempted to bank their current paper profits of 129%. But I see a longer-term opportunity here.

Fishing Republic is a strong established brand with significant cash resources and a public listing (giving it the ability to issue paper for any potential acquisitions). According to the Tackle Trade Survey 2011, around 2,500 specialist fishing tackle retailers operate in the UK, with the retail market value being £541 million. So with Fishing Republic only having a very small share of the market there are plenty of consolidation opportunities. In fact, management have previously said they have ambitions to grow the company tenfold.

On the downside, there is no dividend here as all cash is being used for expansion. In addition, some investors may be concerned that founder and CEO Stephen Gross, along with his wife, have a 29.6% shareholding in the business, although this position has improved since the recent placing. **All considered however, I believe that the risks are to the upside.**



BY VICTOR HILL

OPPORTUNITIES IN FOCUS

MEET THE NEW BREED OF EXTREME MINERS

If you thought mining was about digging holes in dry ground, and that the technology required to do that was mature, think again. There are new kinds of extreme miners emerging who are taking mining to undreamed-of places. There are miners who are extracting resources from below the ocean waves. There are miners operating in extreme terrestrial environments like Northern Siberia. And then (I kid you not) there are proto-mining companies which aspire to bring back precious metals from the Moon, Mars and the Asteroid Belt.

Their audacity will amaze you. But could these Extreme Miners make you money?

It all used to be so simple

Human beings have been extracting minerals and metals from holes in the ground for many thousands of years. The oldest known mine on archaeological record is the *Lion Cave* in Swaziland (South Africa) which radiocarbon dating shows to be about 43,000 years old. Flint mines in Southern England and Northern France go back to Neolithic times. Certainly, the ancient Egyptians mined gold from the earliest dynasties.

Since the industrial revolution mining has become one of the world's major industries, providing resources for modern man's insatiable appetite for stuff. But, as the economy has evolved in the information age, traditional resources like coal and iron ore have fallen out of favour while demand for *strategic metals* has soared.

There are three main reasons why mining is getting more challenging. Firstly, some of the most precious resources reside in their highest concentrations in the most inaccessible locations. Second, resources in the most accessible locations have been intensively mined already and many such mines are becoming depleted. Thirdly, advances in mining technology have opened up new possibilities.

"EVEN IF COMMODITY PRICES ARE DEPRESSED RIGHT NOW FOR REASONS THAT WE HAVE DISCUSSED ELSEWHERE, THE HEAT IS ON FOR MINERS TO ENSURE SUPPLY OF STRATEGIC METALS FOR THE MEDIUM TERM."

As new technologies emerge, so their future has been put in doubt by limited supplies of required materials. For example, there is real concern that the huge potential of lithium-ion batteries (which could be the solution for the next generation of electric cars) could be stymied by a shortage of lithium[i]. Even if commodity prices are depressed right now for reasons that we have discussed elsewhere, the heat is on for miners to ensure supply of strategic metals for the medium term.

For those in peril under the sea...

A few decades ago the prospect of offshore oil and gas production looked more like science fantasy. Nowadays, a large share of the world's oil and gas production comes from the bottom of the sea – and we think little of it. The roll-out of oil rigs in the North Sea in the 1970s – with its attendant network of pipes and on-shore refineries – was an achievement which was rep-

"USING REMOTELY OPERATED UNDERWATER VEHICLE (ROV) TECHNOLOGY, NAUTILUS MINERALS INC. IS THE FIRST MINER TO BEGIN FULL-SCALE UNDERSEA EXCAVATION."

licated across the world from the Gulf of Mexico to the Barents Sea. But what about minerals?

Ocean floor mining sites are usually around major hydrothermal vents located between about 1,400 to 3,700 metres below sea level. These vents, which emit heat from within the Earth's crust, create sulphide deposits, which often contain valuable metals such as silver, gold, copper, manganese, cobalt, and zinc. There are also significant deposits of phosphorous, essential for fertilizer production. These deposits are mined using either hydraulic pumps or "bucket systems" that take ore to the surface to be processed.

As with all mining operations, deep sea mining raises questions about the potential environmental impact. Environmental advocacy groups such as *Greenpeace* and the *Deep Sea Mining Campaign* have argued that seabed mining should not be permitted in the world's oceans because of the potential for damage to deep sea ecosystems.

The deep sea contains many different resources available for extraction. These raw materials are found in various forms on the sea floor, usually in higher concentrations than in terrestrial mines. Diamonds are also mined from the seabed by De Beers (a private company) and others. **Nautilus Minerals Inc. (LON:NUS/TSE:NUS)** and Neptune Minerals (private) are planning to mine the offshore waters of Papua New Guinea and New Zealand.

May 2016 saw the fifth annual global gathering of deep sea miners and their suppliers in London[ii]. Deep sea miners present included Nautilus Minerals Inc., Kongsberg Maritime AS (a subsidiary of **Kongsberg Group (OTCMKTS:NSKFF)**), Neptune Minerals Inc. and COMRA (China). Key topics covered included growth prospects for deep sea mining; environmental sustainability; prospecting and exploration; and new technologies in play. The second annual Asia-Pacific deep sea mining summit is due to take place in Singapore in October this year.

The UN Convention on the Law of the Seas, concluded in 1982 and enforceable from 1994 (but to which the USA is not a signatory), provides that the deep sea is neutral territory. The seabed agreement allows an oversight body to issue exclusive licenses to under-sea miners in designated areas.

The most promising potential deep sea site at present is located off of Papua New Guinea. Solwara 1 is a high grade copper and gold bed and the world's first *Seafloor Massive Sulphide* resource. It resides 1,600 metres under the Bismarck Sea. Using remotely operated underwater vehicle (ROV) technology, Nautilus Minerals Inc. is the first miner to begin full-scale undersea excavation. However, negotiations with the government of Papua New Guinea have delayed the project, which is now scheduled to commence in early 2018.

As the sea ice retreats in the Arctic Ocean this huge area will be more intensively prospected. The Russians have already identified oil deposits beneath the Arctic Ocean and there are likely to be mineral resources too. As for Antarctica, at present commercial mining is outlawed by the Antarctic Treaty System, which came into force in 1961 and now has 63 adherents.

Platinum group metals are found in awkward places – like Northern Siberia

It just so happens that some of the most strategically vital minerals are only found in the most inaccessible places. (Theologians have speculated as to whether the Creator has a sense of humour.) This is no truer than of Platinum Group Metals (PGMs). PGMs comprise, as well as platinum: palladium, rhodium, ruthenium, osmium, and iridium.

And there is one miner which has a veritable stranglehold on the global

supply of PGMs – **Norilsk Nickel (MCX:GMKN)** of Russia. For an encore, Norilsk also produces cobalt, chromium, silver, gold, selenium and tellurium. In so doing, it has to drill through permafrost in extremely hostile conditions in Northern Siberia.

> **"OVER HALF OF THE GLOBAL OUTPUT OF PALLADIUM AND PLATINUM GOES INTO THE MANUFACTURE OF CATALYTIC CONVERTERS."**

Nickel is a light, silvery ferromagnetic and corrosion-resistant metal element which is used in various alloys, notably stainless steel. It is also important for the manufacture of coins and magnets and in certain chemical processes. Scientists conjecture that much of the Earth's core is made of nickel but deposits on the surface of the planet are relatively rare. About 40% of the world's known resources are estimated to reside in the Taymyr Peninsula of Northern Siberia. They were first exploited in the 1920s under the Soviet Union. Another 30% are thought to be in the Sudbury Region of Ontario, Canada. Other major deposits exist in New Caledonia (a French overseas territory), Australia, Cuba and Indonesia. The only nickel mine in the USA, in Oregon, closed in 1987.

Nickel deposits are normally found alongside palladium deposits. Palladium and nickel, along with the other PGMs, share similar chemical properties, but palladium has the lowest melting point and is the least dense of these metals. PGMs have unique catalytic properties which account for their widespread use. Millions of goods manufactured today either contain PGMs or else PGMs play a key role in their manufacturing process.

Over half of the global output of palladium and platinum goes into the manufacture of catalytic converters. These metals are the principal catalysts which convert harmful gases in vehicle exhausts (hydrocarbons, carbon monoxide and nitrogen oxide) into harmless substances (nitrogen, carbon dioxide and water vapour). There are two types of catalytic converter, known as two-way and three-way, used for petrol engines. A third variant is used for diesel engines.

In the USA, since 2004, all internal combustion engines of over 25 brake horsepower (19 kW) must be equipped with three-way catalytic converters. In Japan, similar regulations came into effect in 2007. While the European Union has not made catalytic converters compulsory, cars in EU countries must comply with the relevant emission levels for its age. In reality, that is impossible without a catalytic converter. All new cars manufactured in the EU come with catalytic converters as standard.

Palladium also plays a key role in the rapidly growing field of fuel cell technology. Fuel cells combine hydrogen and oxygen to produce electricity, heat and water. Fuel cells are made up of three segments which are sandwiched together: the anode catalyst (platinum or palladium), the electrolyte (an aqueous alkaline solution or polymer membrane), and the cathode catalyst (normally nickel). Two chemical reactions occur at the interfaces of the three different segments. The net result of the two reactions is that hydrogen is consumed and water or carbon dioxide is created – together with an electric current which can be used to power electric motors.

Fuel cells are essential power sources in inaccessible locations, such as in spacecraft or submarines. One of the big issues for the future, however, is whether they can be made light and efficient enough to power the electric cars (and spacecraft) of the future. If so, we can be sure that the demand for PGMs will explode.

In 2009 the Obama Administration announced that it would stop new funds for the development of fuel cell hydrogen vehicles, since other vehicle technologies were likely to result in quicker reductions in carbon emissions. However, the next time you take a Bendy Bus in London, remember that you are palladium-powered.

So much for the applications; what about production? The main Norilsk Nickel production units are located on the Taymyr Peninsula in Northern Siberia (Krasnoyarsk Oblast) and at Monchegorsk on the Kola Peninsula in Arctic European Russia (Murmansk Oblast). Ores mined on the Taymyr Peninsula are smelted near the city of Norilsk (hence the company name). The nickel ore concentrate and other products are then transported by rail to the port city of Dudinka on the Yenisei River, and from there by boat to Murmansk (Russia's most northerly ice-free port on the Barents Sea).

In recent years Norilsk Nickel has leveraged its proven expertise to expand overseas. Outside Russia, Norilsk Nickel owns mines in Australia, Botswana, Finland and South Africa. In November 2010, Norilsk sold its stake in the operation in the palladium mine in Billings, Montana to its US partner as part of a rationalisation strategy. **Stillwater Mining Corp. (NYSE:SWC)** retains its own stock market listing and boasts an extremely encouraging one-year chart. In fact, its share price has doubled since January.

The prices of PGMs, viewed over the long-term, are on an upward trend, though they have obviously been affected by the overall slow-down in commodity prices over the last three years or more. The price of platinum peaked at over $2,100 per ounce in May 2008 before then falling off a cliff even before the Credit Crunch exploded. As I write, it is trading at around the $1,100 mark, which is only modestly above its 10-year low of $806 on 08 December 2008[iii]. The 10-year chart for palladium tells a different story. Palladium exploded in value between 1997 and 2001, after which date it bombed. From late 2008, however, the price of palladium rose four-fold to its high water mark of just under $900 in August 2014.

> **"IF YOU HAD BOUGHT PLATINUM IN 1992 AND HELD IT UNTIL NOW, YOU WOULD HAVE LOCKED IN AN ALMOST DOUBLE DIGIT ANNUALISED RETURN."**

Remember that these precious metals are highly volatile commodities in the short term. Over a period of nearly 20 years, however, if you had bought platinum in 1992 and held it until now, you would have locked in an almost double digit annualised return. As one producer among an elite few, Norilsk Nickel can, to some extent, ride out short-term price falls and stockpile metals until prices rise again.

I understand that Russian equities are still out of fashion in many quarters but the general view is that Norilsk Nickel is not too cosy with the Kremlin and operates high standards of corporate governance.

Here come the space miners

It sounds like something out of the late Alvin Toffler's *Future Shock*, but within the lifetime of many people reading this, humankind shall be mining resources in space. No doubt there are an infinite number of planets out there rich with precious metals but, for the moment, we shall confine our aspirations to the nearest extra-terrestrial targets: the Moon, Mars and the Asteroid Belt.

The main minerals on the Moon are thought to be *plagioclase* minerals (aluminium silicates) of which *anorthite* (calcium aluminium silicate) is the most common; *olivine* minerals (predominantly magnesium and iron silicates[iv]), ilmenite (iron titanium oxide[v]) from which iron can be extracted, and pyroxenes[vi]. There are many other minerals which occur on the Moon in lower abundance, of which some are precious ones. The Apollo 11 and Apollo 17 landing sites were rich in titanium minerals, predominantly ilmenite. Ilmenite grains of high purity make up more than one fifth of Apollo 17's samples. Only one of the Apollo missions – Apollo 16 – landed on the rugged lunar highlands which were high in *anorthite*.

But if the Earth does not lack iron (at least for now) magnesium supplies are less certain. It's not so much about known resources but about theoretical potential as well. It is thought that the Moon contains quantities of helium-3, an isotope that will be essential for any future nuclear fusion reactors, when they are finally proved viable. (We are still waiting.)

Mars, like Earth, is made up primarily of silicates (minerals containing silicon and oxygen), metals, and other elements that typically make up rock. Also like Earth, it has a central core made up of metallic iron and nickel surrounded by a less dense, silicate mantle and crust. The planet's distinctive red colour is due to the oxidation of iron on its surface.

Much of what we know about the elemental composition of Mars comes from orbiting spacecraft and landers. We also have many actual samples of Mars in the form of meteorites that

"ACCORDING TO ITS OWN RECKONING, THE FIVE MOST EASILY REACHED ASTEROIDS HAVE EXTRACTABLE MINERAL RESOURCES WORTH BETWEEN $8 BILLION AND $95 BILLION AT CURRENT PRICES."

have made their way to Earth. Martian meteorites provide data on the chemical composition of Mars. Based on these data sources, scientists think that the most abundant chemical elements in the Martian crust, besides silicon and oxygen, are iron, magnesium, aluminium, calcium, and potassium. Titanium, chromium, manganese, sulphur, phosphorus, sodium, and chlorine are less abundant but are still important components in the Martian dust and soil[vii].

The fact is that at least three US corporations are already working on the technology to achieve space mining. There is **Planetary Resource Recovery (OTC:PRRY)** based in Redmond, Washington; and then there are Deep Space Industries and Moon Express, both based in Mountain View, California and both privately owned. They are planning to start with the Moon and then to move on to small asteroids that pass the Earth every so often closer than Mars does. Their main targets are, of course, the Platinum Group Metals plus *rare Earth elements*, which are – you got there before me – elements which are singularly rare on Mother Earth. They include yttrium (number 39 in the Periodic Table, symbol Y) and lanthanum (57, La).

Unfortunately, we don't know much about the composition of asteroids. Thus far, humankind has only managed to land one craft on one asteroid. That was the Rosetta Philae probe, which was successfully landed on the surface of Comet 67P-Churyumov–Gerasimenko on 12 November 2014[viii]. A distant world was revealed, littered with boulders, towering cliffs and daunting precipices and pits, with jets of gas and dust streaming from the surface[ix].

Since 2013, Planetary Resource Recovery has owned and has been maintaining a database which collates inputs from NASA's Jet Propulsion Lab and Harvard's Minor Planet Centre. This database is called *Asterank*. According to its own reckoning, the five most easily reached asteroids have extractable mineral resources worth between $8 billion and $95 billion at current prices[x]. Even if mineral extraction on asteroids turns out to be economically unviable for some time (which I doubt) this database is worth something now.

If you think this is pie in the sky, there is already a legal framework to support it. Last November, President Obama signed into law the *Commercial Space Launch Competitiveness Act* – known in Washington as the *Space Act* – by the terms of which US citizens and companies are granted ownership of any minerals that they can extract in space. Chris Lewicki, President of Planetary Resource Recovery, has compared the Space Act with the 1862 Homestead Act which opened up the American West by distributing farmland to anyone who claimed it. Say what you like about the Americans, they are still in the vanguard – both of capitalism, and of the imagination.

The resource-hungry Chinese have not let this extraordinary development go unnoticed. The Europeans are not exactly delighted either. But we all now know that there is a direction of travel. There are in fact already two international treaties which, theoretically, could cover space mining. The

UN-sponsored Outer Space Treaty (1967) was designed, during the Cold War, to prevent nuclear missile batteries being launched into orbit around the Earth. This treaty held that outer space is *the province of all mankind*. But it also propounded that the Moon and other celestial bodies *shall be free for exploitation and use*. Then there is the UN *Moon Agreement* of 1979 which calls for the *equitable sharing* of the returns of any exploitation of celestial bodies. The only problem with this latter treaty is that not a single major nation has signed it.

Some experts on international law (or should that be inter-planetary law?) argue that The US Space Act of 2015 violates the Outer Space Treaty of 1967 in that it anticipates the appropriation of resources in space by one country which should be available to all. The Europeans have responded by establishing a think-tank based at Leiden University in the Netherlands called the *Hague Space Resources Governance Group*. This will report to a committee of the United Nations called COPUOS in 2017.

Some scientists have also expressed concerns about the lunar environment. Do we really have the right to strip-mine the Moon? Article 9 of the Outer Space Treaty specifically outlaws contamination – the risk that microbes might be transferred either from Earth to space or vice versa. All this will be deliberated by COPUOS.

There are three key technologies that will be required before the first lunar, Martian or asteroid mining ships are launched into the ether. The first is to launch a new generation of prospecting satellites and landers which can scan the surface of near planets to determine their mineral composition. Huge advances have been made in spectrometers (as the prospecting instruments are called) but there is still some way to go. The second is the development of autonomous mining robots that will be able to extract minerals in low gravity. The third is to develop craft that will be able to carry the minerals back to Earth. Each of these technologies will have its own supply chain but a common thread between the three will be robotics.

Moon Express recently applied to the US Federal Aviation Authority for permission to launch a lunar lander containing experiments and a roving vehicle. The mission could take place as early as next year. Planetary Resource Recovery aims to station a telescope in near-Earth orbit so as to scan candidate asteroids with specialist imaging equipment. It plans to launch a test craft, Arkyd 6, this year.

Water-rich asteroids emit less light than others and so are more difficult to detect. Therefore, it may only be possible to prospect some asteroids by sending out satellites to intercept them. Landing on smaller asteroids with very low gravity is a challenge – as the Philae lander proved. But Honeybee Robotics Inc., another private company based in New York City, has designed a water extraction system for use on asteroids. And NASA is already working on bulldozers that would operate on the Moon.

Mining is at the dawn of a new age.

ACTION

Keep Nautilus Resources, Norilsk Nickel and Deep Space Resources on your investment radar. Even if you feel that the commodity price environment is not propitious right now, that could change quickly. Regarding the space miners, a small investment in a penny share today might have a very positive impact on your pension 25 years hence. Also, we need to keep a beady eye on the leaders in robotics who will make the new generation of inter-planetary landers. I'll be explaining shortly why **Lockheed Martin (NYSE:LMT)** is highly favoured to profit from the intersection of space technology, robotics and Artificial Intelligence.

i **See: http://www.greentechmedia.com/articles/read/Is-There-Enough-Lithium-to-Maintain-the-Growth-of-the-Lithium-Ion-Battery-M**
ii **See: http://deepsea-mining-summit.com**
iii **See graph at: http://www.apmex.com/spotprices/platinum-price**
iv **Chemically, Mg_2SiO_4 and Fe_2SiO_4.**
v **$FeTiO_3$. Pyroxines aare such as $MgSiO_3$ and $CaSiO_3$.**
vi **See http://www.permanent.com/lunar-geology-minerals.html**
vii **Matt Damon's ability to grow vegetables in Martian soil in the film *The Martian* (20th Century Fox, 2015) was based on accepted science.**
viii **See: http://www.esa.int/Our_Activities/Space_Science/Rosetta/Touchdown!_Rosetta_s_Philae_probe_lands_on_comet**
ix **See: http://www.esa.int/Our_Activities/Space_Science/Rosetta/Touchdown!_Rosetta_s_Philae_probe_lands_on_comet**
x **See: Space Raiders, by Paul Marks, New Scientist, 09 July 2016, page 32.**

BY ADRIAN KEMPTON-CUMBER

CHART NAVIGATOR

COVERED CALL WRITING

HOW PENSION FUNDS BOOST GROWTH

I think options tend to scare a lot of investors, probably in the main because they don't understand them. Really they're not that complicated and there's something that options can do that is a very neat trick that pension funds use to increase their income – and we can do it too.

After any market crash you'll hear all sorts of nonsense about how shorting caused it. Utter rubbish, of course. You can't make money shorting something which hasn't already been over-priced by aggressive buying, usually when the public get involved and jump on the bandwagon after the last genuine price rally. This is then followed by the familiar spike up which provides liquidity for the rest of us to cash out. Thanks to this final frenzy of greed we make a little bit extra profit, which suits me fine. It's the natural order of things: a fool and his money should be quickly parted.

As we know, pensions funds must stay largely invested and not in cash too much or too often. Given each pension fund is limited as to what instruments it can invest in (UK Blue Chip for example), then if the market goes down they are reluctant passengers for sure, but they can't cash out completely. The phrase "we're all in this together" applies for real in pension funds. In turn this provides the chance for the rest of us to cash out of stocks in a bear market before the pension funds close their positions, which will tank the price. This time it's not thanks to the idiots, but because they have little choice but to be sitting ducks.

> **"A CALL OPTION GIVES THE BUYER THE RIGHT BUT NOT THE OBLIGATION TO BUY THE UNDERLYING SECURITY AT A GIVEN PRICE ON A GIVEN DATE. A PUT IS THE SAME BUT GIVES THE RIGHT TO SELL THE UNDERLYING SECURITY."**

Enter options. For readers who aren't quite familiar with options here's how they work in a nutshell. There are two types of options: CALLS and PUTS. A Call option gives the buyer the right but not the obligation to buy the underlying security at a given price on a given date. A Put is the same but gives the right to sell the underlying security. As you may have guessed there is a premium to buy such a right, and the person who is on the other side of the contract gets paid that premium when the contract is created. This works quite nicely for them as a vast majority of options expire either worthless (i.e. the underlying security can be bought/sold more cheaply on the open market), or are simply not exercised. Some option holders will choose not to exercise their rights under the option contract for

"WITH INTEREST RATES AT HISTORIC LOWS, IT'S A GOOD WAY TO TAKE ADVANTAGE OF THE LACKLUSTRE UK MARKET."

whatever reason. I've written options myself that weren't exercised, even though they could have been.

Options have been around since at least the time of Ancient Greece, although given the, at least partly avoidable, economic problems they are facing it seems they're not so popular in modern Greece! Options, like insurance, are used for many and varied things. Film makers often option a script to ensure it's available to them if they want to make the movie, but also so that it's not available to anyone else. Like insurance there's a premium to be paid for that benefit. A movie script might be optioned for $50,000. Even if the movie is never made and the contract term expires leaving the writer in control of their own script again, they get to keep the premium.

If for some reason that script writer became suddenly better known for some reason, another film maker might offer $1m for that option contract. The script writer still keeps his $50k but the owner of the option makes $950k if he chooses to sell on. The principle is the same for traded options. A premium is paid to the asset-holder and then the buyer of the option is free to sell it on should they wish. The risk to the purchaser for a CALL option is the price they paid for it. There is no guarantee they will be able to sell it before the expiry date, as unlike shares there is no obligation for a market maker to take the other side of the transaction should a party wish to sell. So unless a buyer can be found, the option holder must wait until expiry and exercise the right should they wish to, and if it's profitable to do so.

The risk to the writer of the option, though, is that if the price of their asset rises a lot they will still only keep the initial premium and they may have to hand over their asset and forgo the profit they could have made. If they don't own that asset but wrote the option 'naked', then they can really come unstuck. They will have to buy the asset at the prevailing price whatever it may be. The risk is virtually unlimited. Obviously a pension fund wouldn't be very popular if it did that!

So what the pension fund does is write options on stock it actually owns. This way there is no question it can be delivered should the option be exercised. The risk is forgoing profits that would have been made after the contract is written. If they pick the right strike prices (the price at which the option holder has the right to buy the stock at expiry) then they may get hit only rarely. All this means they are making (hopefully) capital gains by holding the stock, and a rental income (i.e. the premium) for effectively allowing someone the use of them for the contract term.

As private investors there is no reason why we shouldn't do covered writing. You'll need a broker that specialises in such business and they are out there. They will insist you hold the stock

with them, and typically their dealing charges are more than a cheap broker, especially an online broker. And whereas in the past that stock was considered collateral, now the broker in fact loans you the money to cover the position, even though you hold the stock, to satisfy the market of your ability to deliver. It all sounds a bit strange to me. Surely the stock is the best collateral for, well, the stock. But the mechanics will not really impact on your trade, excepting that you are required to keep some cash on account to cover small costs related to this set up.

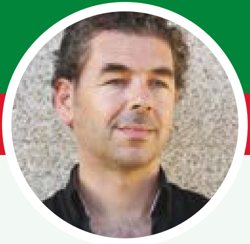
"AS PRIVATE INVESTORS THERE IS NO REASON WHY WE SHOULDN'T DO COVERED WRITING."

It's a neat way to take advantage of a stock holding that is unlikely to impress but is likely to plod along. The premium, which is paid to you straight away at the beginning of the contract, is likely to make your returns look much better. You can write up to four times per year as they expire quarterly. And with interest rates at historic lows, it's a good way to take advantage of the lacklustre UK market.

I used to do covered call writing in the past. It's pretty low maintenance, and if you get it right you can just keep getting paid without being exercised. You are of course at liberty to offer to buy the contract back at any time before the expiry date, and effectively close out, provided you can find someone who will sell back to you.

I've shown a chart here of **Taylor Wimpey plc (LON:TW.)**. It's just the kind of share that could have been very good for covered call writing since 2009. Basically when you have a trending stock then you can fairly well predict what strike price is unlikely to get hit, or hit a little which means it probably won't get exercised. If you were worried about a big price fall, remembering that you'll not be at liberty to sell because you have to cover your call until expiry, then you could protect the capital in the stock by buying a PUT option out of the money (in other words well below the current traded price). This will be cheap as the likelihood of it being hit is low. Of course it's a cost and would possibly more than wipe out the premium you received that quarter but then you could protect the capital tied up in the stock position. You also wouldn't have to wait until the expiry to sell the Put if it did perform. If it's increasing in value at the time then it should be easy enough to find a buyer. In fact, thinking about it, a strategy that would work is to use the premium to do just that – pay for your PUT option to protect your capital each quarter. Basically, free insurance of your capital against the market going down to whatever level you determine is worth protecting. It's an idea.

Now the warm weather is here I have a trade suggestion: short trousers, long bananas.



BY FILIPE R. COSTA

THE MACRO INVESTOR

MAKING SENSE OF THE ITALIAN BANKING CRISIS

"The institutions of the European Union, and the states that belong to this union, each and every one, are paying the price of our failures, hesitations and contradictions. We should each ask ourselves how personally responsible we are."

- Giorgio Napolitano, President of Italy from 2006 to 2015

A Failed Union

The European Union and the Eurozone are under severe strain. Unable to resolve existing problems and contradictions, they have contributed to the resurgence of an anti-EU movement which may soon put an end to the sixty-year-old will of creating a "United States of Europe", as Winston Churchill called for in 1947. The Union has been exposed to asymmetric shocks that put southern countries and core countries at loggerheads inside a common currency market. Without fiscal unity and a centrally-managed budget, common monetary policy has proven ineffective, if not disastrous, for the future of the Union as a whole. With the exception of Ireland, all other countries inside the PIIGS group have been performing very poorly over the period 2008-2015, with Greece experiencing a cumulative real GDP decrease of 26.1%.

The one-size-fits-all monetary policy combined with the fierce austerity measures adopted by Eurozone member countries turned crisis into depression, and sent Europe into the deflationary spiral that has been haunting Japan for more than two decades. The irony is that the lack of proper bank funding and the high government debt to GDP ratios are still there, as the adopted measures completely failed to address these issues. One has to ask: Is Greece any better off today? What are the benefits of being inside the Eurozone? When we look at the Iceland case, where banks were allowed to fail and the currency left free to fall, one wonders whether allowing the free market to solve the problem isn't really better than trying to fix a severely flawed rotten system...

Eight years after the start of this crisis, with real GDP numbers still underwater, a new banking crisis is flourishing. Injecting liquidity into the banking sector hasn't solved the problem, because what's really needed is a growing economy which is able to turn non-performing loans into performing ones and ultimately turn banks into profitable businesses once again. If growth continues to be as sluggish as it has been in recent years, banks will continue to see non-performing loans being turned into bad debts. They then cut back their lending activities,

"EIGHT YEARS AFTER THE START OF THIS CRISIS, WITH REAL GDP NUMBERS STILL UNDERWATER, A NEW BANKING CRISIS IS FLOURISHING."

"50% OF BAD LOANS OF PUBLICLY TRADED EUROPEAN BANKS APPEAR IN THE BALANCE SHEETS OF ITALIAN BANKS."

which prevents small businesses from financing their projects, and creates a vicious cycle. Heavily legislating in order to force banks to hold large capital buffers isn't helping; imposing drastic austerity measures doesn't help either; and cutting interest rates is even worse for banks' net profit margin.

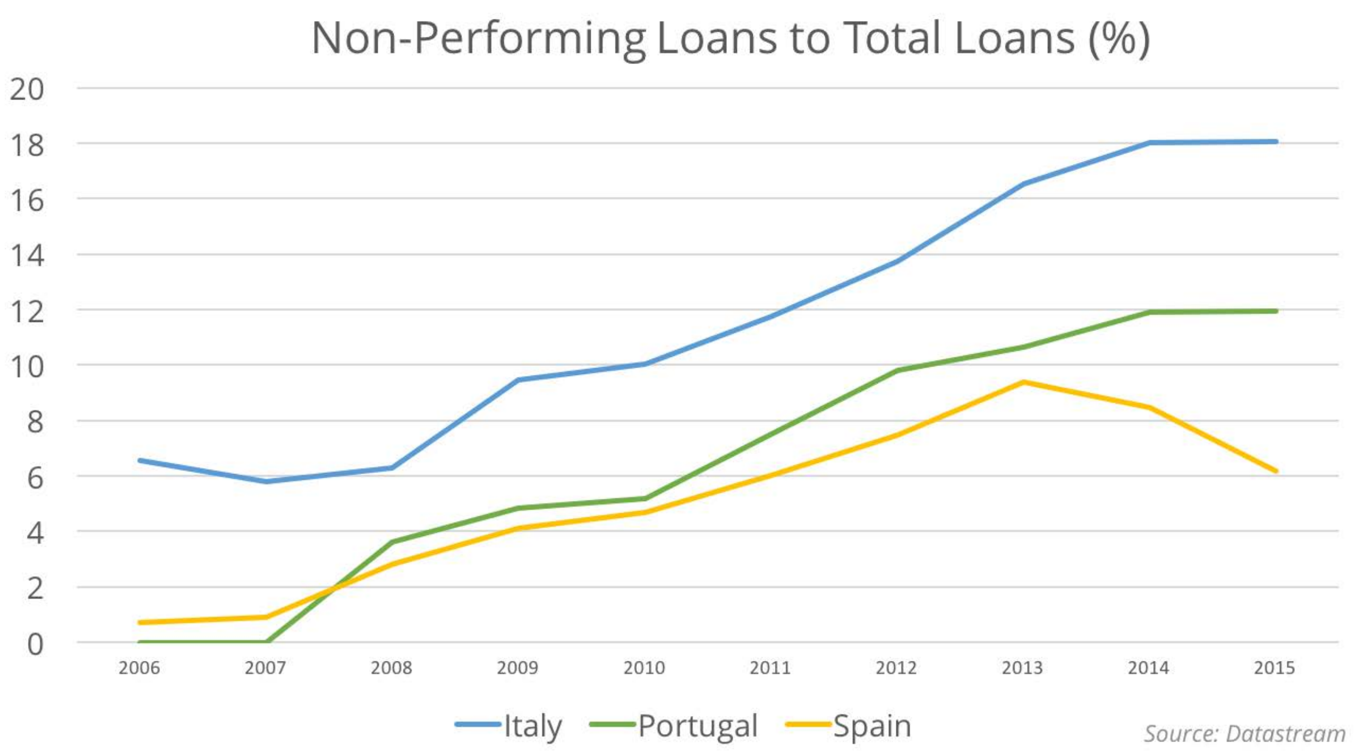
The Rotten Italian Banking System

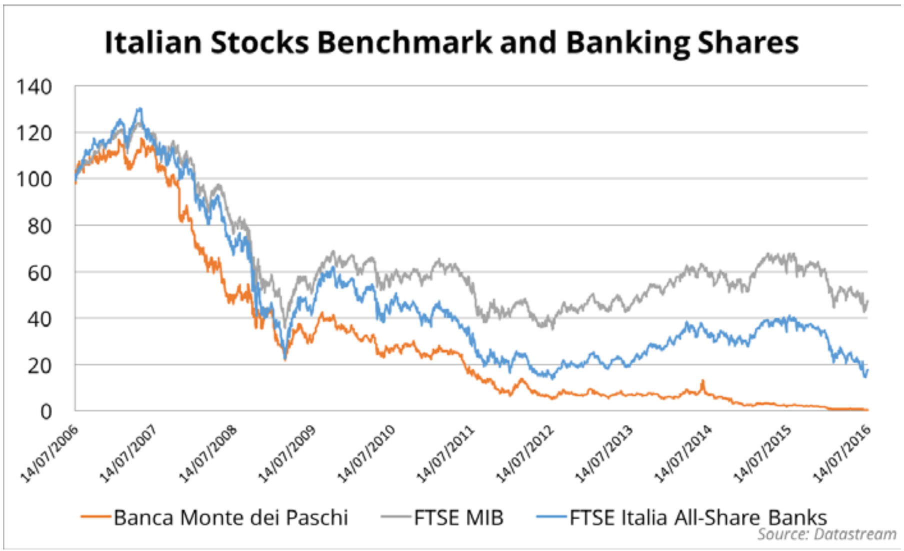
Over the last few months we have witnessed the resurgence of the European banking crisis, this time in Italy. Banca Monte dei Paschi, the world's oldest bank, is at risk of collapsing, as is the whole Italian banking system if banks aren't recapitalised. Compounding the problem is the fact that €187 billion of bank bonds are in the hands of retail investors, whose holdings would be wiped out in the event of a banking collapse, which would most likely trigger social chaos in Italy. The problem is that new EU rules promote bail-ins over bail-outs, meaning that banks' bondholders, shareholders and some depositors should take losses before banks see any taxpayer funds. Under these circumstances, how can Italy recapitalise banks without triggering bondholder losses? The final choice will certainly take a lot of effort and coordination between the EU and Italy, and if a tough stance is adopted by EU institutions, there is a risk of pushing another country out of the EU.

According to the IMF, €360 billion (£300 billion) of non-performing loans held by Italian banks are likely to soon turn into bad debts, mostly taken out by small Italian businesses battered down by years of recession or sluggish growth. Data from Datastream shows that 18% of bank loans are now sour in Italy, as opposed to just 8% in mid-2008 when the financial crisis was at a peak.

Even more worrisome is the fact that 50% of bad loans of publicly traded European banks appear in the balance sheets of Italian banks. With that in mind, it shouldn't be a surprise that while the Stoxx Europe 600/Banks index has lost one third of its value year-to-date, Italian banks as a whole have lost more than 55%. Many Italian banks are currently trading at distressed levels, with some of them on 0.1x net book value. Banca Monte dei Paschi is probably the worst case now. The third largest lender in Italy, BMP has already been bailed out twice and it needs a third bailout to cut its bad debts, now worth €45 billion on its balance sheet (and probably next to nothing in market terms). The bank has already lost 80% of its market value this year.

Fearing the social chaos that would result from following the bail-in rules imposed by the EU, Matteo Renzi insists on finding a solution under which the government injects money into Monte dei Paschi, with bondholders avoiding a significant haircut. With one third of Monte dei Paschi's bondholders being common Italians, Renzi fears the political crisis that a bail-in would create and the subsequent rise of the Five Star Movement and an anti-EU sentiment. While chaos would no doubt ensue in the event of a bail-in, we should give full credit to Wolfgang Schauble's argument against bailouts: "Why did we introduce bail-in rules in the first place? Because everyone said it can't happen again that the bankers make the big profits and the taxpayers end up paying for the risks." In my view, Schauble is right to fear the reintroduction of moral hazard into the system.





"ITALIAN BANKS ARE MUCH MORE EXPOSED TO THE ECONOMIC CYCLE AND TO CENTRAL BANK POLICY REGARDING INTEREST RATES THAN OTHERS ELSEWHERE."

But the EU was founded on misperceptions of risk. As George Soros pointed out a few years ago, banks in the EU had been purchasing government bonds as if there was no default risk. But in transferring the right to print money to an independent central bank, member countries run the risk of default on their government bonds because they can no longer print additional money. Everyone ignored these risks when pricing government debt of each member state about the same for years – until the point when the market discovered that government debt isn't 'riskless'. If governments are risky, commercial banks are even riskier. Why is the retail investor holding a significant portion of his pension savings in risky bank bonds? If Renzi is able to adopt the bail-out model, then the retail investor will be convinced that bank bonds are really safe. In future we will run through the same scenario over and over again. Bankers will be happy to keep selling their bonds to naive savers, as if they were safe investments.

While I see problems stemming from both "bail" options, I still prefer the bail-in one. The past teaches us a lesson about bail-outs: while banks are saved, the taxpayer is drowned. To save banks, governments need to spend taxpayers' money and then adopt severe austerity measures that end up damaging future growth and hitting banks once again, later down the line, through reduced economic activity. In the end, the bail-out is a way of kicking a can down the road, until you hit the end of that road. European economies need to liberate government resources in order for them to adopt more dovish measures in place of the central bank, which has been unable to do anything that is long-lasting.

A Little "Help" from the ECB

In contrast to other countries, banks in Italy depend heavily on plain-vanilla lending activities and much less on fee-generating activities such as asset management and investment banking. This means that Italian banks are much more exposed to the economic cycle and to central bank policy regarding interest rates than others elsewhere. Ultra-low interest rates depress their net profit margin. With the ECB expected to ease policy even further in the near future, the outlook for Italian banks isn't the best. The Brexit outcome is precipitating the inevitable rescue of Italian banks, as it further extended the expectations of ultra-low rates.

Even if we were able to clean all non-performing loans from Italian banks' balance sheets at this point, I would guess that in a matter of a few years the problem could surface again, as their profit model just doesn't work under these conditions. Nevertheless, non-performing loans won't disappear overnight and banks will have to inject money to deal with rising bad loans. If economic prospects were improving, some of the non-performing loans would turn into performing loans, which would be the best bail-in possible. But in a country that has seen GDP fall by 8.3% in real terms between 2008 and 2015, and where future growth prospects are grim, that isn't going to happen anytime soon. The IMF now expects Italy to grow by "just under" 1% this year, while growth in 2017 is expected to be "about 1%". This isn't enough to ease banks' troubles.

While opting for bail-ins and saving government money to expand the economy would probably be the best decision, Matteo Renzi will try to exploit every loophole in European treaties to opt for a bail-out instead, as he fears being punished by voters in fu-

ture elections. Article 107 of the Treaty of the Functioning of the European Union permits state aid in "exceptional occurrences" to "remedy a serious disturbance to the economy". Section 72 of the Bank Recovery and Resolution Directive allows authorities to partially exclude liabilities from losses to "avoid the spreading of contagion". Section 41 of the same directive gives the possibility of a precautionary capital raise without burden sharing "due to the outcome of a scenario-based stress test" when a group cannot raise private capital. Several different options are then still open.

Alternatively, Renzi may try to find a solution under which bondholders are given bank shares. Given their distressed price levels, bondholders may end up benefiting under a scenario where the sector recovers in the future. One way or another, I think it unlikely that the straight bail-in model will be adopted in Italy, despite that being the EU's preferred model. With the UK now beginning to put together plans to leave the EU, European institutions will think twice before forcing any member country to do something against its will.

Final Remarks

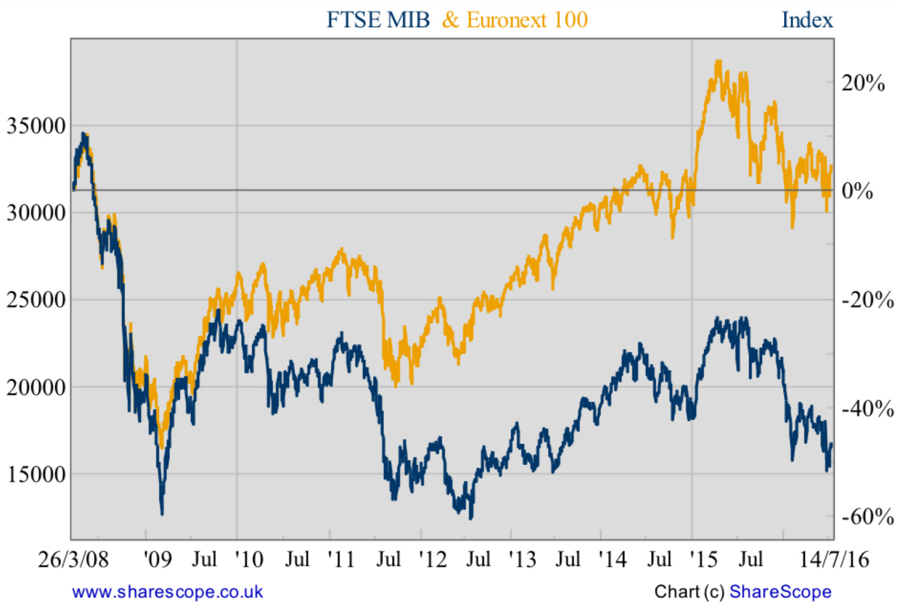
With the European economy lacking growth and the ECB keeping an ultra-low policy regarding interest rates, the prospects for the European banking sector in general aren't great. In Italy, where growth is expected to be particularly low and where banks require fresh capital to absorb the growing number of non-performing loans, the situation is even tougher. Even after cleaning away bad debts from their balance sheets, Italian banks would face low profitability. But with many Italian banks now trading at 0.1x their net book value, it's difficult to recommend shorting the sector. It may be the case this situation worsens a little bit more before improving, but Italian banks are going to recover somewhat, given time. There is always more money to make from a situation that improves from terrible to just bad than from a situation that improves from good to very good. It's time to keep an eye on Italian banks and to eventually consider adding some shares to a diversified portfolio.

Economic Performance in PIIGS

	2008-2015 (observed)	2016-2017 (expected)
Portugal	-5.5%	2.5%
Ireland	9.5%	8.6%
Italy	-8.3%	2.4%
Greece	-26.1%	1.6%
Spain	-3.3%	5.2%
Iceland	6.5%	8.0%

Source: OECD

"WITH THE UK NOW BEGINNING TO PUT TOGETHER PLANS TO LEAVE THE EU, EUROPEAN INSTITUTIONS WILL THINK TWICE BEFORE FORCING ANY MEMBER COUNTRY TO DO SOMETHING AGAINST ITS WILL."



BY SAMUEL RAE

FORENSIC FOREX

MY FOUR NEAR-TERM BIAS DRIVERS

The forex markets have found themselves in a pretty intense period of uncertainty over the last few months. I am part of a group of traders that share opinions and trades back and forth via Skype on a daily basis, and while I don't go with the group as far as trading decisions are concerned (my strategy is very simple, and entries aren't generally dictated by sentiment) I do interact as part of the group as I love to gauge opinion. The summer period is generally pretty quiet, and low volume makes traditional signals a little harder to come by, but activity in the group is higher than ever. Why? Because nobody knows what kind of a macro environment we will be looking at as the summer period draws to a close and volume picks up again. There are so many uncertainties, and so little to go on as far as making any solid predictions is concerned – and this is translating to risk off sentiment.

With this in mind, I thought it might be a good time to take a look at how I'm approaching the uncertainty, and what it means for my trading going forward.

So, here goes...

First, let's look at what's causing the chaos. In my mind there are four primary inputs: China, Europe and the Brexit (I'm looking at these as one right now), US monetary policy and terrorism.

These are the four things I believe are playing into the unprecedented levels of uncertainty in the markets, and not necessarily in that order. China has struggled for a while now, and the accuracy of data that comes out of Asia is somewhat questionable. We do know, however, that the growth seen across the last, say, 10 to 15 years, is no longer taken as given, and that China's economy is slowing (that is, its growth is decelerating). Last year, this made headlines across pretty much every financial outlet on a daily basis, but this year, it's not making the front page as much. This doesn't mean the risk isn't present, however. It's very much still there. If China continues to decelerate, the impact this will have on Europe – by way of Germany primar-

“THE BREXIT IS NOT HAVING THE DOOM AND GLOOM IMPACT EVERYONE THOUGHT IT MIGHT, BUT IT IS WEIGHING ON THE EURO AND STERLING.”

ily – and the US, cannot be overstated. My plays on this one are bullish dollar (justified by its safe haven status) and bearish Aussie and the Yen.

The Brexit is not having the doom and gloom impact everyone thought it might, but it is weighing on the Euro and Sterling. Neither the UK nor Europe has the time to be battling over Brexit term negotiations, and whatever the outcome, it's drawing attention from more important policy. Spain and Greece are still in trouble. Germany is exposed to China and now has an immigration problem causing civil unrest. These things need to be looked at, but attention is being diverted away from them by the Brexit situation. My plays on this one again favour the USD, and I expect Sterling to be stronger than the Euro across the next six months.

Will the Fed raise rates, and if so, when? That's the policy uncertainty in the States right now, and I believe it's going to determine sentiment for a long time moving forward. If the Fed raises (and I think they will soon), I believe equity markets will correct severely. In turn, I think markets will rush to risk off assets, which is a scenario that will boost the dollar and gold. I'm bullish on both of the aforementioned based on this assumption.

Finally, the terror threat. This threat has been with us for the past however many years, but aside from a few isolated incidents and some pockets of geopolitical tension, it's not really infiltrated the wider asset markets. I believe that has now changed. Incidents in Germany, France and the US have put markets on high alert, and I think this will accelerate any correction if and when it occurs. I don't believe terror incidents are going to abate, and especially given that we are in an election year in the US (one in which both candidates have immigration and terrorism as a lead policy point), there's no chance it's going to drop out of the news. The general feeling of uncertainty this coverage causes will weigh on sentiment for the foreseeable future. Again, this serves me up a bullish risk off asset bias – long gold and the dollar.

I recognize that this is a pretty bleak interpretation of current conditions. My biases are primarily risk (and specifically, risk off) driven. In my opinion, however, that's where we currently find ourselves in the global economic cycle. We are far closer now to the next recession than we are the last, and it's just a case of catalyst going forward.

In Forex, of course, we can benefit from a downturn just as we can from an upturn, which makes holding this bias decidedly less unsettling.

"WE ARE FAR CLOSER NOW TO THE NEXT RECESSION THAN WE ARE THE LAST, AND IT'S JUST A CASE OF CATALYST GOING FORWARD."

BY CAROLINE DREWETT

MILLENNIALS & MONEY

RISE OF THE CREDIT CRUNCH KIDS

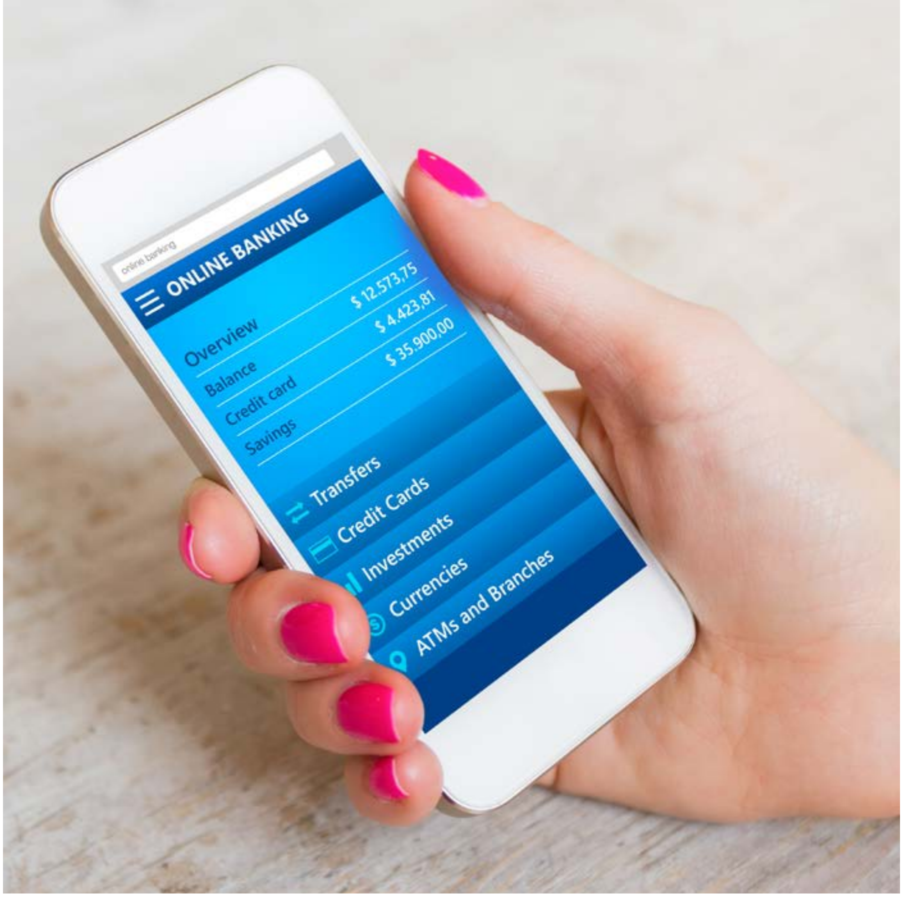
WHY EVERY PARENT SHOULD GET ON BOARD WITH THE NEW APPS AVAILABLE

As more and more new apps become available by the day, with many going viral and causing frenzies, sieving out the useful from the latest flash in the pan is essential. Millennials now have very little excuse not to learn how to manage their personal budget; with websites, apps, and online tutorials available everywhere, a commute to work can now be a tutorial in personal finance. Moreover, Millennials are likely to be the social group that need help the most; with over $2 trillion ready to be passed down to them, a large number of Millennials won't be gaining their wealth through traditional methods of being frugal and investing wisely. Instead, large sums of money will simply be handed to Millennials on a plate from their baby boomer parents, the wealthiest generation in our history, through all means of channels, from inheritance to loans and house deposits.

This is undoubtedly an appealing prospect in some respects, but it means that those with large lumps of cash need to start thinking about how to learn to manage their budgets. New finance apps are popping up every week, and a staggering 60% of parents are opening accounts with the aim to teach kids how to manage a budget. GoHenry, one of the leading providers and first to market here in the UK, offers a prepaid debit card and app with unique parental controls, and currently has 250,000-plus users. Similarly, another popular brand, Osper, reports hitting a peak of 30-plus cards being ordered every minute, with at least 20% growth in orders every month since 2014. Nimbl, a recent entrant to the market, has also reported a very positive response and higher than predicted sign-up rates.

> **"WITH WEBSITES, APPS, AND ONLINE TUTORIALS AVAILABLE EVERYWHERE, A COMMUTE TO WORK CAN NOW BE A TUTORIAL IN PERSONAL FINANCE."**

As a consequence, the Prepaid International Forum says the number of live accounts and the variety of options on offer are growing dra-



matically. This is a unique opportunity for parents to help their children with personal finance and to teach them about how to maximise their incoming wealth. After all, with home economics classes and financial fluency lessons generally experiencing less focus in today's education system, there is an increasing need for young adults to get up to speed with the practicalities of living in the real world.

Alastair Graham, spokesperson for PIF, believes the new opportunities to be beneficial. "Parents are increasingly aware of the pitfalls of financial irresponsibility and excessive debt," argues Graham. "Many will have suffered as a result of the recent economic troubles and they don't want their children to make the same mistakes. Equally, with it becoming harder for young people to get on the property ladder and fears of meeting the costs of retirement, it is in parents' own interests that their children are less of a financial drain as they grow older." As a result, Graham believes that PIF are seeing increased innovation from financial services providers, "especially

"WHEREAS SCHOOLS HAVE TRADITIONALLY HELPED STUDENTS TO LEARN ABOUT HOW TO SURVIVE AT UNIVERSITY AND BEYOND, PARENTS ARE NO LONGER LEAVING THEIR CHILDREN'S FINANCIAL FUTURES IN THE HANDS OF TEACHERS."

those in the prepaid sector, looking to offer solutions to parents and children alike, meeting modern spending habits as well as the ability to track and analyse spending and budgets."

Whereas schools have traditionally helped students to learn about how to survive at university and beyond, parents are no longer leaving their children's financial futures in the hands of teachers. As Alex Zivoder, CEO of goHenry confirms "We've heard from thousands of parents over the years about how we've been able to help their children learn the value of money and how to confidently manage a budget by providing a pre-paid debit card and app with unique parental controls. Pairing pre-paid with apps is definitely a winning formula – the ability for young people to track in real-time exactly how much they have spent and what they have left to spend is a powerful way to encourage sensible money decisions."

Although this might prevent some from getting into debt in the short term, there is no evidence that such prescriptive behavior is beneficial in the long term. Is it really sensible for fussy and over-controlling parents to hold the reigns of twenty-somethings' spending habits to such a tight degree? Parents using an app to track spending of someone who's moved out of home, has a job, and should be in control of their life, could have detrimental effects. Surely Millennials should be able to make their own mistakes without being molly-coddled into saving every last penny to satisfy their parents.

"TWO-THIRDS (66%) OF PARENTS SURVEYED BELIEVED THAT THE INCREASED USE OF CARDS AND ONLINE TRANSACTIONS MAKES IT HARDER FOR CHILDREN TO LEARN ABOUT MONEY."

Indeed, another industry survey conducted by nimbl, a financial platform and provider of prepaid cards for 8-18 year olds, revealed parents' key concern is the shift away from cash in everyday transactions. Two-thirds (66%) of parents surveyed believed that the increased use of cards and online transactions makes it harder for children to learn about money. With many students and children giving little consideration to credit cards and single-click virtual payments, a number of parents have already lost huge sums of money with in-app purchases or unexpected bills resulting from their child's Xbox or iTunes downloads, not to mention foreign data roaming charges, so they feel there is a need for children to appreciate the true cost of easy, 'invisible' money transactions.

Clint Wilson, CEO and founder of nimbl, believes that parents want reassurance about how their children can manage the financial challenges of a digital world. "New financial services for children must balance the ease of making online transactions with safeguards, such as budget setting or live reporting so that parents can see how money is being spent. Used in the right way, this allows parents to give children a degree of independence along with oversight to ensure budgets are managed and see where money is going."

Maybe this is the solution; allowing future generations the sensation of control, whilst learning to also manage their freedom and independence. We live in a non-stop world increasingly dominated by technology. Virtual payments are clearly the future. In all likelihood, physical coinage and currency will soon cease to exist. Utilising apps and the smartphone seems the best way to start managing your money, and encouraging our children to do the same. From the iAllowance virtual piggy bank and P2K Money designed for technology hungry kids, to Level Money budget balancing, Mint Money's organisational tools, and Wally personal expense tracker, there are endless options out there. Others like WalletHub even offer something truly unique such as tracking your live credit score. With apps like Ballpark Estimate helping to untangle the mysteries of retirement, there is certainly no excuse for not encouraging the financial movers and shakers of the future to actively engage in online financial fluency.

BY CARL SHAVE

THE BUY-TO-LET ALTERNATIVE FOR INVESTORS

In these changing times, it's perfectly understandable that buy-to-let investors would look for a new way to protect their yields. The seismic changes introduced by George Osborne cut right to the core of what was an incredibly profitable buy-to-let sector. With some landlords reporting returns of as much as 1,400 percent since 1996, perhaps a shakeup was due, but few foresaw just how far the chancellor would go. Now, Osborne has gone, but what he has left behind has prompted buy-to-let investors to change the way they make property investments.

Cuts to mortgage interest tax relief

The obstacle looming ever closer on the horizon for buy-to-let investors is the cut to mortgage interest tax relief. Touted by Osborne as a method of 'levelling the playing field for homebuyers and investors', the move has been dubbed a 'tax grab' by buy-to-let investors, who could see the tax relief they receive on their mortgage interest payments fall from 45 percent to 20 percent.

The cuts announced in last year's summer Budget will reduce the maximum rate of mortgage interest tax relief from 40 and 45 percent for higher and additional rate payers respectively, to just 20 percent. The tax changes will see landlords lose a quarter of their higher-rate tax relief each year until 2020, at which point it will be restricted to 20 percent on all mortgage interest charges thereafter.

"THE OBSTACLE LOOMING EVER CLOSER ON THE HORIZON FOR BUY-TO-LET INVESTORS IS THE CUT TO MORTGAGE INTEREST TAX RELIEF."

The move will have the following impact on a typical £200,000 property investment:

Property value: £200,000
Interest-only mortgage: £150,000 (75 percent LTV) calculated at 4%
Rent: £800 per month

Current annual position

- Rental income – £9,600
- Mortgage – £6,000
- Net income – £3,600
- Taxable at 40 percent of rental income – £3,840
- Minus 40 percent of mortgage interest payment – £2,400
- Tax payable – £1,440
- **Net profit – £2,160**

New position

- Rental income – £9,600
- Mortgage – £6,000
- Net income £3,600
- Taxable at 40 percent of rental income – £3,840
- Minus 20 percent of mortgage interest payment – £1,200
- Tax payable – £2,640
- **Net profit – £960**

What is the alternative for investors?

In recent months there has been a surge in the number of buy-to-let investors securing their mortgages through limited companies. Such is the extent of the rise in lending to incorporated companies that one leading lender predicts more than 75 percent of all buy-to-let purchases will be made through limited companies in the next year.

This prediction comes after a mortgage broker released figures showing the numbers are already well up when compared with last year. The figures show that the proportion of landlords investing in property through limited companies has risen from less than 20 percent in the first half of 2015, to more than 50 percent in 2016 – with applications by limited companies running at over 60 percent in the second quarter.

Why are landlords using limited companies?

It comes as little surprise that more buy-to-let property investors are purchasing properties through limited companies given the buy-to-let tax changes. By buying an investment property through a limited company, buy-to-let investors are able to shift their personal tax liability to a corporation tax liability, which has lower rates. This means that rather than paying income tax of up to 45 percent, they can pay corporation tax at 20 percent.

The rules are more complicated for landlords with existing property portfolios. In that case, to transfer their portfolio to a limited company, investors would have to sell the property to the company first. They'd then have to consider any possible capital gains tax liability on any increase in property value.

What are the implications for investors?

Investing in property through a limited company is certainly no panacea for the problems investors now face. In fact, this strategy brings its own unique challenges.

To buy property through a limited company, most landlords will need to set up a Special Purpose Vehicle to buy the property. They will then have to select the appropriate SIC (Standard Industry Classification) code that relates to the property. The new three percent stamp duty surcharge on second homes applies to limited company property purchases just as it does individuals, so this will also have to be paid.

For investors who already own a buy-to-let property, transferring a property to a limited company has significant tax implications you will need to be aware of. The property will firstly have to be sold at market value to the limited company, which could lead to capital gains liabilities if the property has increased in value. However, this charge could be waived if the investor can prove the property is a 'business' rather than an 'investment'.

There are also a number of responsibilities associated with incorporation investors do not have as individuals. Rather than completing and submitting self-assessment tax returns, a limited company has to complete annual returns and accounts, placing a significant administrative burden, and additional costs, on the investor.

It's also worth factoring in the additional costs associated with a buy-to-let mortgage for limited companies. The average rates are typically 0.7 percent higher due to the underwriting costs involved in checking out the company and the individuals behind it.

What this all means is that while the decision to purchase an investment property through a limited company might seem clear cut, there are certainly plenty of factors to consider before you incorporate.

About the author

Carl Shave is a seasoned commentator on financial matters and one of the minds behind Just Mortgage Brokers (www.justmortgagebrokers.co.uk). He has worked in the Mortgage Industry for over 20 years, first working for a high street lender and then departing to setup and run his own branch of mortgage brokers 15 years ago.

JULY 2016

BEST OF THE BLOG

Jim Mellon's Brexit Play-book

Two weeks ago, I pulled my first all-nighter since I was 18. The news that the side I supported – those urging the United Kingdom to leave the European Union – had won the referendum was a shock to most observers, including myself. I had a variety of bets on the outcome that paid off, but I had placed them more out of emotion than rational analysis.

Immediately after the vote, a movement among disappointed Remainers began to question its validity, with demonstrations in London, vitriol on the Internet, and mooted legal challenges. The liberal, metropolitan elite couldn't believe that it had lost, particularly since all the runes had indicated a successful outcome for Remain.

They still can't believe it, but the predictions of doom haven't come true (the stock market is now up by some measures, and the pound has fallen to what I think is a reasonable rate). In the absence of anything other than threats of retaliation by the Eurocracy, the world goes on and it doesn't look such a bad place.

Sure, there is turmoil in the political parties, but, at least on the Conserv-

"IN THE ABSENCE OF ANYTHING OTHER THAN THREATS OF RETALIATION BY THE EUROCRACY, THE WORLD GOES ON AND IT DOESN'T LOOK SUCH A BAD PLACE."

ative side, that is likely to be resolved soon. The Labour Party is fracturing, and of that, more later.

Overall, things aren't looking desperate. I still think the economy will grow well this year, and indeed next. Nine countries (including the United States) have already made overtures about trade agreements with the UK, and it's much easier to deal with one country than the perpetual catfight that is the 28-member EU bloc.

Interest rates have fallen, not gone up. And the housing market, which was already falling due to its fundamental overvaluation and the imposition of hefty transaction taxes, will probably continue to drift – but gently.

By Jim Mellon

Click here to read the full article

Turkexit Is Now a Reality

"AFTER DECADES OF NEGOTIATIONS AIMED AT OPENING THE EU DOOR TO TURKEY, ERDOGAN HAS JUST FOUND THE EXIT WITHOUT EVER ENTERING."

If I were President Erdogan, I wouldn't congratulate myself too precipitously upon the failed coup attempt. While his government survived the weekend's military coup, his country's future may have been compromised, as Turkey has just exploded the bridge that was guiding Turkey into the bosom of the developed world. This represents the regression of a decades-long goal for Turkey. Given the movements observed during the last few days, it seems like Erdogan was anxiously waiting for such an opportunity to proceed with massive changes to the structure of the military and civil service and to turn the country into a *Putin-style* society. But such moves come at a cost: Turkexit is now a reality. After decades of negotiations aimed at opening the EU door to Turkey, Erdogan has just found the exit without ever entering.

Last Friday, the military invaded the streets of Ankara and Istanbul in a failed attempt to replace President Erdogan. Within hours, Erdogan's government managed to contain the plot. Even though 230 people died during the coup, it was not particularly violent, because it lasted just a few hours. But 6,000 people were arrested and another 35,000 soldiers, police officers, judges and civil servants were detained or suspended in less than 48 hours. There's no intelligence agency in the world capable of making such a complete list in years, let alone a few hours. The European Commissioner responsible for enlargement, Johannes Hahn, publicly condemned Erdogan's moves, claiming that lists of arrested judges seemed to have been pre-prepared. Nothing seems to be able to stop President Erdogan, who has fully embraced the opportunity presented by the failed coup to proceed with major alterations in Turkish society and to turn the country into a much more authoritarian one, in a clear divergence from the culture within the EU. President Erdogan even mentioned the possibility of restoring the death penalty, which was abolished in 2004.

By Filipe R. Costa

Click here to read the full article

Alice in Wonderland Economics Gets Even Crazier

In May I wrote about how the world of the Zero Interest Rate Policy (ZIRP) was one of Alice in Wonderland economics with all kinds of unforeseen consequences over the long term. And last week I discussed how the Bank of England Governor's attempts to lower interest rates after the Brexit shock sent confusing signals to the markets.

Today I want to dig a little deeper and to speculate on how Alice in Wonderland economics is likely to get even crazier before sanity is finally restored. (If ever). I have just listened to a BBC R4 documentary entitled *How Low Can rates Go?*[i] by Martin Wolf, the chief economics commentator at the *Financial Times*. This has given much food for thought.

Now I have to get something off my chest. I regard both the *Financial Times* and *The Economist* as mouthpieces for the prevailing *economic orthodoxy.* You don't have to be a Marxist like Antonio

Gramsci to believe that, throughout history, orthodoxy is the ideology of the prevailing elite. Orthodoxy means keeping things the same – even when the consequences are deleterious. Orthodoxy is always biased in favour of the status quo. Orthodoxy is usually about tautological semantics (things are so because they are so…). I could name several writers on the FT whose main task is to restate received wisdom in ever more clichéd ways. The lame arguments with which they fought the REMAIN cause just confirmed my prejudice.

That said (rant over), what Martin Wolf writes is always worth noting, not least because he seeks to stress test his ideas. He is also remarkably well connected. (Of course – he is a member of the extended governing elite who rules us.) So, to get back to the Radio 4 programme, how low does he think interest rates might go?

Negative – and then more negative. And when that still doesn't succeed in stimulating demand we shall head into the weird world of helicopter money.

By Victor Hill

Click here to read the full article

Small Cap Opportunities in a Post-Brexit World

On an asset class basis, most of the investment media focus post Brexit has been upon the performance of sterling, which as I write is down by 9.4% against the US dollar since referendum day and 7.5% lighter against the euro.

In contrast, despite banks and housebuilders having plunged in value, blue-chip stocks on the whole have done well, with the FTSE up by 5.2% to 11-month highs as investors seek out quality assets. Government bonds have also seen a flight to safety, with yields falling to all-time lows, and in some cases (the 2 year gilt for example) even turning negative. However, the FTSE 250, which is more heavily exposed to the recession-threatened UK economy, has fallen by 3.4%.

"THE FTSE AIM ALL SHARE INDEX INITIALLY FELL SHARPLY IN THE TWO TRADING DAYS FOLLOWING THE REFERENDUM BUT IT HAS PULLED BACK SINCE TO BE JUST 0.3% LIGHTER."

But how have small caps fared since that fateful decision was finalised in the early hours of Friday 24th June?

The answer is, not as badly as you might have thought given their higher risk status. As the chart below shows the FTSE AIM All Share index initially fell sharply in the two trading days following the referendum but it has pulled back since to be just 0.3% lighter. On an individual stock basis, 30% of AIM companies have seen their share prices rise since the referendum, with 11% flat and 59% down.

Here follow two stocks where I see potential trading/value opportunities following the referendum result:

By Richard Gill, CFA

Click here to read the full article

BY RICHARD GILL, CFA

READ TO SUCCEED

THE FUTURE OF INVESTING:

HOW BIOTECHNOLOGY COULD TRANSFORM YOUR PORTFOLIO

BY TOM BULFORD

Imagine having the opportunity to invest in a rapidly growing industry but you just don't know anything about it. For example, when the internet sector was in its infancy at the beginning of the century, words such as download, middleware, firewall and many others were considered to be "techy" jargon, unfamiliar to the masses and potentially off-putting to private investors who wanted to get involved. That was an unfortunate position to be in given that the likes of Amazon, Google and Facebook have grown to become some of the largest companies in the world.

Now in 2016 we appear to be seeing a similar problem with biotechnology. This potentially transformative industry is attracting billions of dollars in investment every year, with the US seeing a notable boom in biotech company share prices between 2009 and 2015. But with the sector involving complicated science and tongue twisting terminology some investors are adhering to the "don't invest in what you don't know" approach.

> **“USING A SIMPLE PRODUCT SUCH AS YEAST TO MAKE BREAD RISE COULD BE CONSIDERED TO BE PART OF BIOTECHNOLOGY.”**

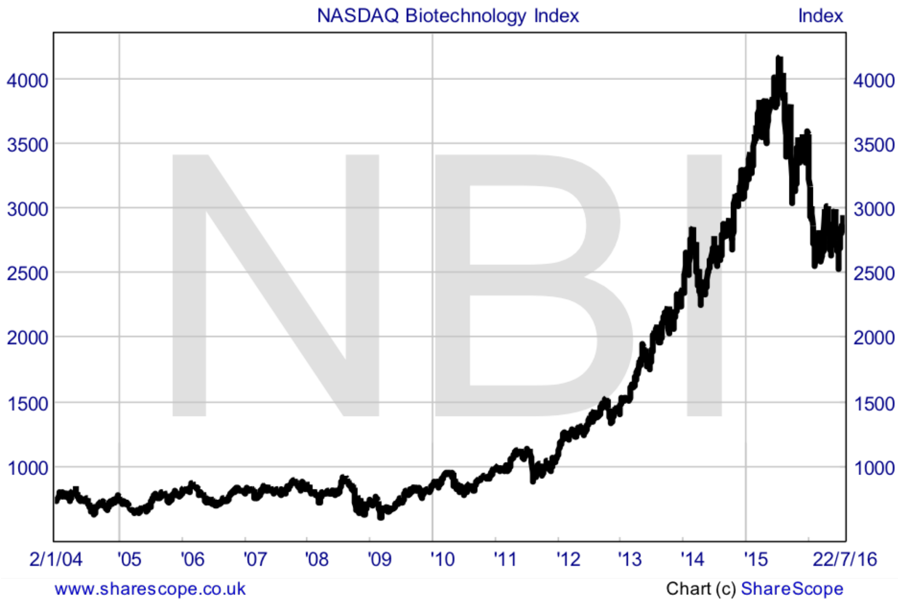
In *The Future of Investing: How Biotechnology Could Transform Your Portfolio*, author Tom Bulford educates investors about the intricacies of the industry and argues that biotechnology could potentially be one of the best sectors to put your money into over the coming years. Bulford himself is a former fund manager and well known small cap journalist who has run several successful tipsheets. So convinced is he that biotech is set to be the next big thing he has dedicated the last five years of his career to researching the industry, travelling the country to meet the scientists and company CEOs who are at the top of the biotech game.

What is biotechnology?

Many people think of biotech as being focussed upon developing new medicines for humans. While that is certainly a large part of the industry it has a much wider remit, extending into many other fields. As far I understand it, biotechnology can be best described as "*the deliberate manipulation or control of biological processes for use in developing products which enhance human lives*". So considering this definition, using a simple product such as yeast to make bread rise could be considered to be part of biotechnology.

Time to buy into cells?

In the first chapter of the book Bulford explains in his own words what biotechnology is, along with some interesting information on how it works at the cellular and DNA level. Perhaps more importantly, he explains that investors should be particularly interested in the sector at this moment in time as humans have never before known more about how living things work. Combined with advancements



in computing technology, this creates the potential for companies to create hugely valuable and profitable biotech driven products in the coming years.

The next few chapters, and the core of the book, focus on the various fields in which biotechnology is being applied and the advancements which are being developed. From human health, animal health, food and clean energy, there are a multitude of industries which are seeing the benefits of the biotech revolution.

"INVESTORS NEED TO BE SMART AND APPLY TRADITIONAL FUNDAMENTAL ANALYSIS, ALONG WITH COMMON SENSE, TO ANY POTENTIAL INVESTMENT."

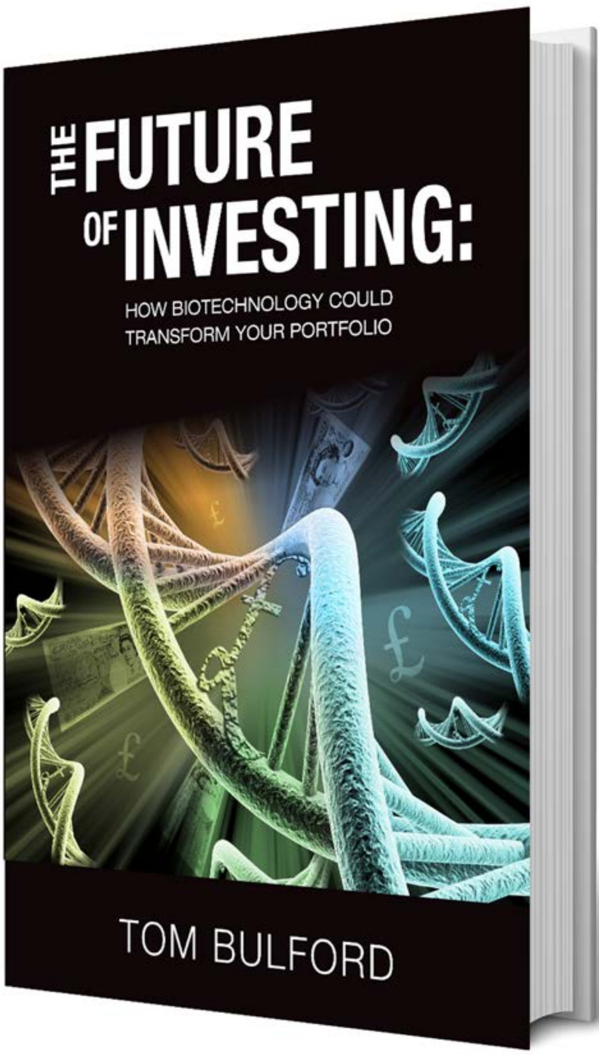
In human health, for example, scientists are getting better at identifying which specific genes cause certain ailments, and also which ones result in more desirable characteristics. With this information, gene therapy can then be used to help find cures for diseases and even to ensure babies are born with the eye colour of their parents' choice.

In farming, artificial insemination based on positive genetic traits has helped to increase the amount of meat gained from cows, pigs and other livestock. Similarly, the genetic modification of crops has helped to improve yields, improve product quality and even to develop new products such as the purple tomato.

Into the water, and numerous swimming world records smashed at the 2000 Olympics in Sydney were attributed to a new design of swimming costume based upon the "thrust enhancing" and drag reducing nature of shark skin.

Make genome-ous gains

The final chapter focuses on how investors, armed with the knowledge gained in the rest of the book, can potentially transform the performance of their portfolios by investing in biotech companies. As the chart below shows, biotech stocks have delivered some substantial returns over the past few years. Between the market bottom in 2009 and the summer of 2015 the NASDAQ Biotechnology Index (which is heavily weighted towards large biolog-



"THIS IS A SLIM, BUT FACT PACKED VOLUME, WHICH CAN BE READ IN A COUPLE OF HOURS."

ical drug stocks) rose by almost 600%. But fears over a potential bubble have seen the index shed 30% of its value since it peaked in July last year.

So is now the time to get back into the biotech market?

Bulford thinks so, and sees particularly exciting opportunities in smaller companies. However, with many biotech businesses simply pouring millions of pounds into research and making no revenues, and many having fanciful valuations, he argues that investors need to be smart and apply traditional fundamental analysis, along with common sense, to any potential investment. There then follows five useful "Golden Rules" which investors should stick to.

While I won't reveal all of the rules here I have a few favourite pieces of advice. Firstly, for obvious reasons, investors should avoid investing solely in biotech companies whose fortunes rely heavily upon one project. On that note, some readers may remember London listed scar reduction company Renovo, whose shares collapsed by 75% in just one day in 2011 after announcing that trials of its flagship product Juvista were unsuccessful.

Another top tip is to consider a "picks and shovels" strategy by investing in areas such as diagnostics and biotech service providers. These companies will earn money regardless of whether their customers' research is ultimately successful. One particular business doing well in this area is AIM listed antibody developer **Bioventix (LON:BVXP)**.

Finally, and perhaps most importantly, investors should pay attention to value. A company might have a potentially world beating product but investors should always ask if it's worth paying the current price given the risks involved. Cat allergy drug business **Circassia Pharmaceuticals (LON:CIR)** comes to mind here, with the company valued at a whopping £581 million at IPO in March 2014. The shares are now valued at less than a third of their initial price after a Phase III study found the drug performed no better than a placebo.

Conclusion

Coming in at just under 100 pages this is a slim, but fact packed volume, which can be read in a couple of hours. While readers will need some background knowledge of investment to fully understand the book, it assumes no knowledge whatsoever of the science behind biotechnology. Indeed that is its strong point. What stood out to me was the way the author takes complicated scientific subjects and explains them in a manner in which the lay investor can understand. With that in mind, there is also a glossary section which explains in plain English key terms frequently used in the industry, such as *antimicrobial*, *bioinformatics* and *epigenetics*.

Overall, for any investor looking to learn more about the exciting world of biotechnology, and the money making opportunities which come from it, I know of no better book on the market at the moment than Tom Bulford's tome.

BY ADRIAN KEMPTON-CUMBER

THE FINAL WORD

THINGS ARE NOT WHAT THEY SEEM: BREXIT IS NOT TO BLAME

"IF YOU MAKE A STATEMENT YOU'D BETTER BE ABLE TO BACK IT UP, OR SUFFER THE INTELLECTUAL CONSEQUENCES."

Brexit is being blamed by ignoramuses for just about everything right now. The reality may surprise you, as may the identity of some of these ignoramuses.

I was talking to someone online the other day and they introduced a claim into the conversation which was palpably spurious. I, of course, challenged them on it. But rather than at least try to defend what was indefensible, they simply said, "You and I both have contrary views on that so I am happy to just agree to disagree". *Yeah, of course you are, 'cos you're wrong!* First off, I decide if I'm going to 'agree to disagree', although I can't think of any reason to – the point should be resolved. Secondly, don't make a knowledge claim (if you are actually not speaking from knowledge) and then try to use a Get out of Jail Free card to avoid the inevitable. One of the very few actual virtues is saying you don't know when you don't know.

As they often ask on Mumsnet (apparently): Am I being unreasonable? No, of course not. If someone said to you that 2+2 = 5 then you wouldn't let it go, and you certainly wouldn't let them involve you in some pact that says it's OK for them to think 2+2 = 5. That would be the same sort of tolerance that enables the intolerance and ignorance that leads to things like the Orlando massacre. It's the kind of thinking that allows nonsense like creationism being taught in schools (thankfully no longer with government funding) and homeopathy being available on the NHS (which it still is, even though scientific report after scientific report condemns it as abject nonsense). So no, I am not going to agree to disagree: if you make a statement you'd better be able to back it up, or suffer the intellectual consequences.

"THE KEY TO UNDERSTANDING WHAT'S GOING ON IS TO BE ABLE TO DISTINGUISH BETWEEN THE CAUSES BEHIND SOMETHING AND THE CATALYST THAT STARTS THE CORRECTION. IN OUR CASE BREXIT IS THE CATALYST AND CERTAINLY NOT THE CAUSE."

There's a pervading culture here that opinions which are based on any old ridiculous nonsense are just as valid as fact-based considered opinions, and they're not. In fact, when it comes to actual facts opinions are entirely irrelevant. Think what you like about evolution, but it's a fact, and believing it isn't will change nothing, except perhaps to hold back evolution! The Remain and Leave campaigns jumped all over this idea of making stuff up and pretending it's valid – giving out misinformation with apparent impunity. I expect that sort of behaviour from politicians, but the stimulus that's behind this article is something altogether more shocking: the complete misunderstanding of cause and effect by journalists in mainstream news publications – those who write that changes in the markets have been the result of Brexit. They are wrong and should frankly be embarrassed. I won't agree to disagree!

OK, it's fair to say that this week's "City Insider" may well be last week's "Gardening Corner" journalist. And I use the word *journalist*, but it probably shouldn't be applied to these rubbish-scribbling crayon-jockeys of highly derivative guano. There's probably an angry horticultural columnist, right now, writing broadly the same article as me, chastising these very hacks for blaming the recent weather on Brexit, and, as I write this, giving myself the idea to coin the phrase *the former UK Prime Minister Incapability Brown.*

I know how hard it can sometimes be to make the point you want with a limited number of words and column inches, but the compromise must not be the facts. Some of the claims I've seen this last week or two illustrate a complete absence of understanding of markets and economic phenomena. For instance, on one news site it said, "Britain's decision to leave the EU has led to a "dramatic deterioration" in economic activity, not seen since the aftermath of the financial crisis." What a crock! This IS the aftermath of the financial crisis for starters, and I shall illustrate the economic reality we find ourselves in below (hint: it has nothing to do with Brexit).

The key to understanding what's going on is to be able to distinguish between the causes behind something and the catalyst that starts the correction. In our case Brexit is the catalyst and certainly not the cause.

Let's look at the economic conditions. The noughties were typified by fake credit over inflating asset prices of pretty much all classes, and the stars of the show were oil, domestic property and gold. Politicians were more than happy to play musical chairs (seats perhaps?), in the hope that the bubble would burst when the 'other guys' would get blamed. Having done little to nothing to avert financial disaster, instead of raising interest rates, thus allowing weak businesses to fail and people who should never have been lent to in the first place get repossessed, they created this low interest rate environment, where those of us responsible enough to save money are subsidising zombie companies and borderline home owners. The zombie companies are side-stepping the redundancies and business failures that would have freed up a generation of start-up entrepreneurs; and the home owners are making tax free capital gains at our expense.

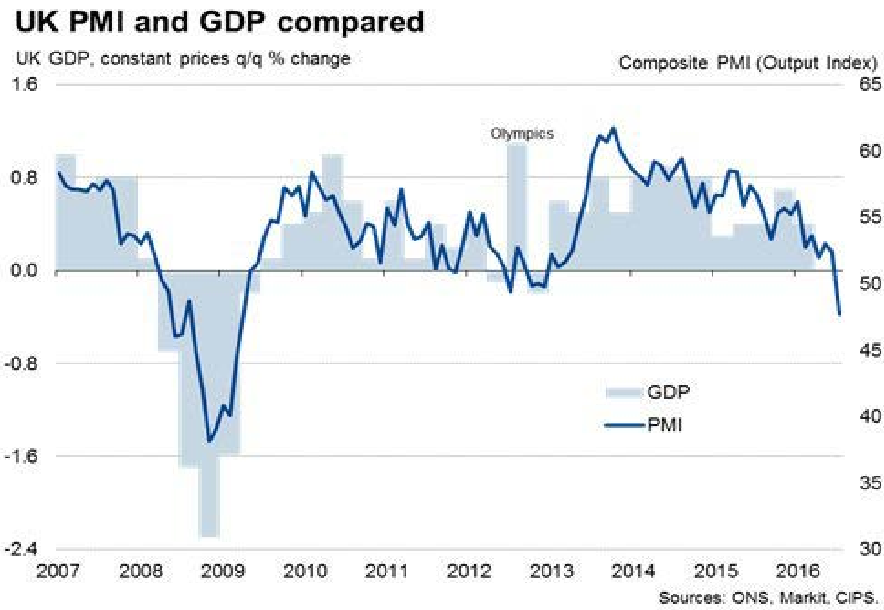
Inflation is a lie. It's nowhere near 1%-2%. Not only is there sneaky invisible inflation through selling marginally smaller quantities, often in exactly the same sized packaging and at the same price, but low paid workers get £11 billion benefits and tax credits every year, meaning that the cheap prices are only part of the picture. You can add some of your income tax to your household bill. On top of that, if you're buying meat, for example, the prices have rocketed by a magnitude since 2009. Inflation, by my estimation, is around 6-8%. We've been in technical recession since the financial crisis. The reason (at least here in the South East) this hasn't been obvious is the trickle-down of all the foreign money being parked in tax haven London. (If you don't like trickle-down then substitute Keynes' 'multiplier effect'.)

So to say that Brexit is causing a slowdown in economic activity you'd need to show how that is the case. Can we observe that?

In the PMI versus GDP chart (which Markit Economics has kindly allowed us to reproduce here) we can see a strong correlation between GDP and PMI, the Purchasing Managers Index. I explained the PMI in my article from last October called ['No News Is Good News'](), in which I talked about UK market weakness. For me, by far the most telling feature of this chart is how the PMI has been falling since the high in 2013. This has absolutely nothing to do with Brexit. When the PMI is below 50 then it's a negative result for economic activity – and it is, simply continuing the trend. The chart clearly shows a series of lower highs. There has been no sign of an upturn. So did Brexit kick this off in 2013? I think not.

Incidentally, in that same article I talked about **British American Tobacco plc (LON:BATS),** which I suggested back in June '15 in my article ['British American Tobacco – The Future Is Lit Up']() looked like a good long-term bet. Judge for yourself using this handy chart, with the lines marking the congestion area.

"Ah, but what about the pound?" you might say. I've written about this quite a bit so I won't harp on too much about it here. The pound has been lining up for a fall for some time. It always seemed anomalous that zero interest rates, QE and rampant inflation had little effect



on the pound. This is a long-overdue correction and one I started writing about as fairly imminent back in [January](), which was before the EU Referendum date was even announced.

None of this has been caused by Brexit; that was simply the catalyst for an overdue correction, a spark in a tinder box if you will. The bullet in the Franz Ferdinand of finance. Brexit was not the cause of the major market moves since the referendum. Again, none of this will come as much of a surprise to my regular readers. Analysis cannot be done in a vacuum. It is part of a whole. We can't have the economic concept of 'perfect knowledge', but we can get close if we try.

What Brexit may have done is introduce the debate about a written constitution, and that could be more of a straight-jacket than people might imagine. For a real life example, look at how hard it is to change the Second Amendment in the US, where gun laws clearly need reforming and there is popular support to do so. Perhaps our unwritten constitution is the way to go, and it's the way we're still going.

It's forcing Germans to consider that the Euro cannot survive unless they are sacrificing their wealth and standard of living. In their constitution it says that the democratically elected government must do everything *not to harm* its own people. An interesting state of affairs. Meanwhile, *Incapability Merkel's* new bezzy mate, *Incapability Erdoğan,* has based his political career unashamedly on that of Hitler.

What Brexit will do here is enable us to take advantage of countless trade opportunities, maintain our borders and legislate as we see fit – and have short queues at passport control for UK passport holders only!

MARKETS IN FOCUS

JULY 2016

GLOBAL EQUITIES

Index	Last Month %	YTD %	Proximity to 52w High*
Bovespa	11.2	32.2	
NASDAQ 100	7.1	3.0	
DAX Xetra	6.8	-3.8	
Nikkei 225	6.4	-12.6	
S&P/ASX 200	6.3	5.5	
Hang Seng	5.3	1.0	
IBEX 35	5.2	-10.0	
CAC 40	4.8	-4.3	
S&P 500	3.6	6.3	
Euronext 100	3.5	-3.4	
FTSE 100	3.4	7.7	
Dow Jones	2.8	5.8	
Russian Trading System	-1.0	22.2	

COMMODITIES

Commodity	Last Month %	YTD %	Proximity to 52w High*
Palladium	18.5	26.4	
Platinum	12.1	29.2	
Iron Ore	11.5	39.4	
Silver	8.1	47.5	
Gold	2.5	28.0	
Copper	0.5	3.8	
Coffee	-2.4	13.0	
Natural Gas	-2.7	21.5	
Cocoa	-4.2	-11.7	
Sugar (No. 11)	-7.6	22.1	
Crude oil (Brent)	-13.0	16.4	
Soybean	-13.3	15.9	
Crude oil (Light Sweet)	-14.6	11.6	

FOREX

Pair/Cross	Last Month %	YTD %	Proximity to 52w High*
AUD/USD	2.0	4.3	
EUR/GBP	1.1	14.6	
EUR/USD	0.7	2.9	
USD/CAD	0.4	-5.8	
EUR/CHF	0.0	-0.4	
EUR/JPY	0.0	-12.6	
GBP/USD	-0.5	-10.2	
USD/CHF	-0.6	-3.2	
USD/JPY	-0.6	-15.1	
GBP/AUD	-2.6	-13.8	

CENTRAL BANKS - RATES & MEETINGS

Central Bank	Key Rate	Next	After
BOE	0.50%	Aug 04	Sep 15
ECB	0.00%	Sep 08	Oct 20
FED	0.50%	Sep 21	Nov 02
BOJ	-0.10%	Sep 21	Nov 01
SNB	-0.75%	Sep 15	Dec 15
BOC	0.50%	Sep 07	Oct 19
RBA	1.75%	Aug 02	Sep 06
RBNZ	2.25%	Aug 11	Sep 22
BOS	-0.50%	Sep 06	Oct 26
BON	0.50%	Sep 22	Oct 27

FTSE 350 TOP

Sector	Last Month %	YTD %	Proximity to 52w High*
Hochschild Mining PLC	48.4	453.8	
ARM Holdings PLC	47.8	60.9	
Vedanta Resources PLC	37.6	108.4	
Vesuvius PLC	28.3	10.5	
Just Eat PLC	26.0	8.8	

FTSE 350 BOTTOM

Sector	Last Month %	YTD %	Proximity to 52w High*
Tullow Oil PLC	-24.6	19.3	
Clarkson PLC	-16.5	-18.1	
NMC Health PLC	-14.7	31.5	
Cairn Energy PLC	-13.7	13.6	
Stagecoach Group PLC	-12.2	-31.5	

FTSE 350 SECTORS TOP

Sector	Last Month %	YTD %	Proximity to 52w High*
Tech Hardware & Equip	44.7	56.1	
Industrial Metals	24.8	133.7	
Soft & Computer Serv	14.4	18.5	
Chemicals	10.7	11.6	
Mining	10.2	58.9	

FTSE 350 SECTORS BOTTOM

Sector	Last Month %	YTD %	Proximity to 52w High*
Oil Equip, Serv & Dist	-5.5	1.8	
Food & Drug Retailers	-5.3	1.4	
Oil & Gas Producers	-3.8	27.4	
Health Care Equip	-2.5	6.3	
Electricity	-1.8	1.7