ISSUE 33 – DECEMBER 2017

WWW.MASTERINVESTOR.CO.UK

MAGAZINE

masterinvestor

RESEARCH • ANALYSE • INVEST

THE UK'S NO.1 FREE INVESTMENT PUBLICATION

THE FUTURE OF MONEY

CASH, CRYPTO OR GOLD?

PLUS...

JIM MELLON

INSIDE THE MIND OF THE MASTER INVESTOR

BUDGET 2017

WHAT DOES IT MEAN FOR YOU?

INFRASTRUCTURE FUNDS

5 FUNDS TO PROTECT YOU FROM INFLATION

Z-SCORES

HOW TO SPOT TROUBLE BEFORE IT HAPPENS

WELCOME

Dear Reader,

During my recent travels, I have been wondering whether something is wrong with our money.

- In continental Europe, I visited a multi-billion euro family office whose guiding principle is to prepare for an eventual collapse of our currency system as we know it. They freely admit that it could happen in two years or twenty years, but they insist it *will* happen.
- In Hong Kong, I spotted multiple "bitcoin accepted here" signs.
- Back in Europe again, I met an entrepreneur who measures his "real wealth" using a formula consisting of the amount of gold bullion he can consume per month for his expected remaining lifespan. When he liquidates entrepreneurial assets, he reinvests it into real, hard assets.

These are anecdotal findings, but most of them would have appeared to be oddball stories (or conspiracy theories) as recently as two or three years ago.

Evidently, the Western financial system is under huge strain. The Institute for Fiscal Studies just worked out that the UK's debt is not going to go back to pre-2008 levels before 2050 at the earliest. Will the younger generation put up with inheriting a crippling national debt, or will we see ever more (and ever more radical) young leaders elected into office, with drastic monetary resetting as a consequence?

Never mind the entire issue of technology. Some see the rise of bitcoin and other cryptocurrencies not as a speculative bubble, but as an early sign that ever more people are looking for a viable alternative to the established fiat money. For lack of alternatives, they invest even into unproven assets like cryptocurrencies.

Master Investor Magazine hopes to take you on a journey through some of the most exciting, scary, and fast-evolving developments in the world of money. Lean back, fasten your seatbelt, and enjoy learning about subjects that are vital to anyone who has a few quid in the bank!

Best regards,

Swen Lorenz
Editor, Master Investor Magazine

CONTACTS

ADVERTISING
amanda@masterinvestor.co.uk

EDITORIAL ENQUIRIES
james.faulkner@masterinvestor.co.uk

FOLLOW US

Master Investor Ltd.
Suite 88
22 Notting Hill Gate
London W11 3JE
United Kingdom

EDITORIAL
Editor Swen Lorenz
Editorial Director James Faulkner
Creative Director Andreas Ettl

EDITORIAL CONTRIBUTORS
Filipe R. Costa
Richard Gill, CFA
Victor Hill
David Jones
John Kingham
Swen Lorenz
Jim Mellon
Tim Price
Samuel Rae
Carl Shave
Alan Steel
Nick Sudbury

CONTENTS

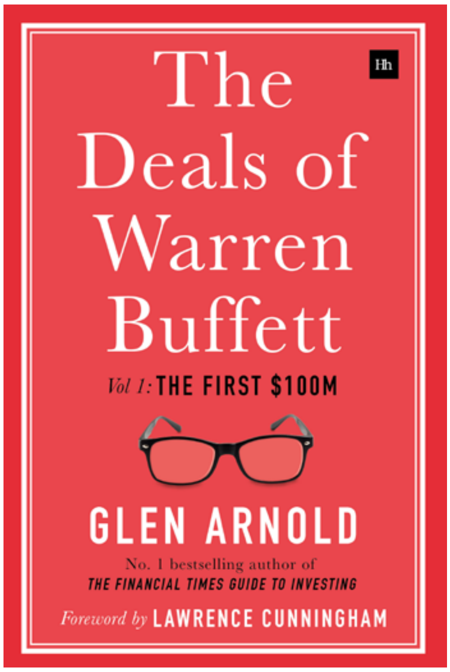
ISSUE 33 – DECEMBER 2017

FEATURE

ON THE COVER

ALL OTHER TOPICS

ALL OTHER TOPICS



BY JIM MELLON

MELLON ON THE MARKETS

Two trips to Australia in two weeks is not a recipe for a *Juvenescent* life. Bottom line, if you have to do it, go Emirates. It's way better than BA, sadly, which has dropped all pretence of service in favour of short term profits.

I went the second time to speak at a conference known as SOHN Hearts and Minds. SOHN is a charity which channels money into such worthwhile causes as Juvenile Diabetes, MS and Cardiac Research. The Australian version of this international organisation was extremely well organised, and this one event raised over A$5 million.

The format is that fund managers pitch single stock ideas to demonstrate their analytical and predictive abilities. Every pension fund, investment banker and financial type of note Down Under attended the jamboree at the Sydney Opera House, and paid A$3,000 each for the privilege.

Paul Keating, probably the greatest Australian PM and Treasurer postwar, spoke of China's ambitions and tactics. He is also fixated on the impact of the ageing population, as am I, and I enjoyed speaking with him privately afterwards. He was responsible for turning around the Aussie economy in the 1980s, with the result that Australia has now been growing for over 26 years, an uninterrupted run only surpassed by the Netherlands.

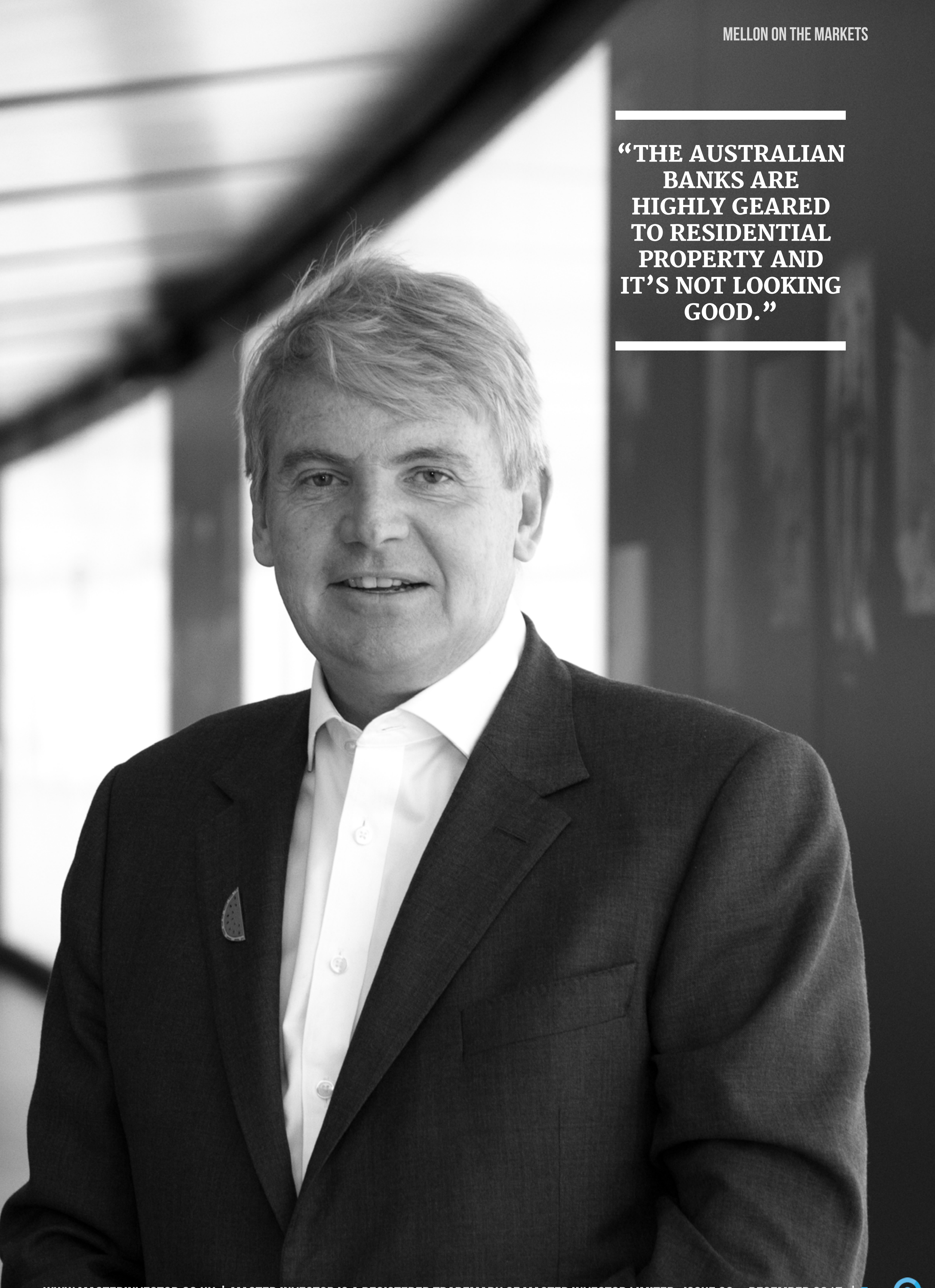
Is the party over Down Under?

But the good times may be coming to an end for Australia. Housing, a mainstay of the economy, and where enormous leverage is concentrated is beginning to tip over, partly as a result of government policy. The Australian banks are highly geared to residential property and it's not looking good. Anecdotally, retail prices, even with a discounted Aussie dollar, are extremely high by international standards, for just about everything. A pint of beer for £8 anyone? Wages, while high, are stagnant and personal debt is stratospheric.

Although the terms of trade have supported export volume growth and consumption growth is robust, my general sense is that the Aussie dollar remains overvalued and could fall another 5% or so against the US dollar, and more in a banking crisis. Certainly, Australia is the only major country where I see interest rates being *cut*, rather than raised over the next year or so.

Furthermore, the two top exports – iron ore and coal – are in their own way being threatened. Coal is being hit by the growth in green energy, and iron ore by China's efforts to stem overcapacity in steel production, which in the past year alone has resulted in a staggering 1.6 million job losses!

What Australia does have going for it is a very large pension (superannuation) industry, as a result of forward-thinking policies over many decades. But even Australia is going to find it hard to sustain pensions in an age of ultra-longevity, and people expecting to retire at 65 on gold plated pensions must think again.



“THE AUSTRALIAN BANKS ARE HIGHLY GEARED TO RESIDENTIAL PROPERTY AND IT’S NOT LOOKING GOOD.”

"BUY GOLD AND SILVER, BECAUSE, AS I KEEP BANGING ON, INFLATION IS BACK AND IT'S GOING TO SURPRISE ON THE UPSIDE."

Andrew Scott, who wrote the brilliant *100 Year Life* book on the social implications of longevity extension, is joining me and a number of others in establishing an Institute to get the message across that policy makers better take note of the coming acceleration in life expectancy, as detailed in the book "Juvenescence". Watch this space, and please get your copy of the book for Christmas, as it is nearly sold out now.

Australia is really a great country and I loved my visit. I am a Scot, so I don't feel the pain of the majority of the Brits regarding the cricket results, but it is clear to me a good trade deal can be done with our cousin-country as soon as Brexit happens.

As I have been saying for some time, a deal is going to be done before Christmas, and it now appears that that is likely. Not much will change superficially, but I do expect the gloom-laden prognostications about the British economy, so beloved of Remainers, to start perking up a bit in the New Year. Oh, and the pound will probably continue to rise against the dollar and the euro in the next year or so.

Currencies, bitcoin, precious metals and inflation

In my last letter, I said that the yen was undervalued. It's moved a bit in our favour, and I would now be neutral there. My sense is that tightening in the US (Goldman is forecasting four rate rises by the Fed in the next year, and I concur), as well as necessary tightening by the ECB and the BOJ, will result in a shortage of dollars in the next few months, reversing the recent downtrend of the dollar (except against the pound).

The euro is a short against the dollar at the current level of 1.19, and I see it falling 5% or so. That doesn't sound like a lot, but it's a big fall in FX terms.

Bitcoin, beloved of my friend JY Sireau, who has brilliantly called this 10x plus rise in 2017 on behalf of shareholders in Binary.com, has probably taken the shine off gold and silver so far in the year. Speculators (there are now 14 million of them, as an example, at Coinbase) have shifted their attentions to cryptocurrencies in droves.

But when everyone and their Jack Russell are piling into crypto wallets, that's the top, or close to it.

Buy gold and silver, because, as I keep banging on, inflation is back and it's going to surprise on the upside.

I saw an interesting article (confirmation bias!) that the Philips curve was on its way back – and that's exactly what I have been saying, although not quite so eloquently. Gold is going to $1,500 over the next year. I really like **Condor Gold (LON:CNR)**, where I am a director.

I met with **Zenith Minerals (ASX:ZNC)** when I was in Sydney, and this company, through its affiliate Bradda Head, has exciting lithium prospects in North America. Lithium has had quite a move, but I don't think the game is over yet. Zenith is traded on the ASX.

I recently had an interesting conversation with someone on bonds. The height of folly was when Italy borrowed billions last week at a negative rate. Italy is in a right old mess, and any modest recovery it is experiencing is the bounce of the dead cat. Those bonds are a huge short, and if you can't do that you can sell any and all bonds you can get your hands on.

Anyone who thinks bond yields can remain low in the face of near universal tightening and of rising inflation is certifiable – just as some might say about my toing and froing to the Antipodes in a fortnight. If it does me in, at least I will have a lot of airmiles to bequeath.

Happy Hunting!

Jim Mellon

Click here to follow Jim's trades on Twitter

About Jim

Jim is a visionary entrepreneur with a flair for identifying emerging global trends enabling him to build a worldwide business empire. He is amongst the top 10% in the "Sunday Times Rich List" (Britain's equivalent to the Forbes list). He predicted the credit crunch of 2007-08 in a book entitled "Wake Up! Survive and Prosper in the Coming Economic Turmoil". Jim followed this with "The Top 10 Investments for the Next 10 Years" (2008) and then "Top Ten Investments to Beat the Crunch!" (2009). His monthly "Mellon on Markets" column has gained him cult status among investors. He holds a master's degree in Politics, Philosophy and Economics from Oxford University.

BY VICTOR HILL

OPPORTUNITIES IN FOCUS

THE FUTURE OF MONEY

We think of money as an objective reality – but in fact it is just a conceptual construction of the human mind. It does not exist in nature; animals have no notion of it; even humans managed to live for countless millennia without it.

The history of money is the history of civilisation. It has been around as a medium of exchange (a much more efficient one than barter) and as a store of value since the time of the Babylonians. But the sophisticated arrangement that we call the *international monetary system* is a relatively recent phenomenon – and one that is in constant evolution.

The gold standard was abandoned in the 1930s; the Bretton Woods system that succeeded it was scuppered by the *Nixon Shock* of 1971. Thereafter, we have existed in a system of fiat or "paper" money (though most money resides in bank accounts) and floating exchange rates. This dispensation has brought about the Age of Debt – in which debt accumulates faster than capital, with dangerous consequences for the stability of the international financial system.

But now we open the latest chapter in the history of money... the rise of digital cryptocurrencies. This presents the possibility of a new global monetary architecture which could bring about the demise of the mighty US dollar as the major global reserve currency. This month I want to glimpse the future of the international monetary system medium-term – and to warn investors of the possible monetary shocks in store short-term – not least to the value of the greenback and the price of gold.

"THIS CHANGE COULD COME ABOUT SOONER THAN WE THINK."

"THE FULL GOLD STANDARD, WITH ALL THE MAJOR ECONOMIES OF THE WORLD LINKED TO GOLD BULLION, LASTED ONLY 50 YEARS."

The lure of gold

Way back in history countries did not need exchange rates because their currencies existed in the form of gold and silver coins which circulated freely. So, in the first century of the Common Era, merchants in Persia would take payment in the form of coins bearing the head of the Emperor Nero on the basis of the intrinsic value of the gold itself. This system lasted right up until early-modern times. Notes were issued by banks from the Renaissance onwards on the understanding that they could be exchanged for gold coin.

By the beginning of the 19th century, most money existed not in the form of notes and coin but in the form of bank deposits – which are really just claims by an institution or an individual on a bank.

The primacy of gold ensured that there was very little price inflation across the world's major economies, although the occasional failed harvest could cause the prices of agricultural commodities to soar from time to time. Overall, however, the price level remained extraordinarily stable. In 1932 the average level of prices in Britain was slightly below what it had been in 1795 at the outset of the Napoleonic Wars. The abandonment of the gold standard coincided with widespread inflation, of which the German Weimar Republic's experience of hyperinflation of the early 1920s was the most extreme.

Low inflation was accompanied by low interest rates which ranged from 2.2 to 3.5 percent in Britain over most of the 19th century. This long period of monetary stability could not be maintained in the subsequent era of highly differential inflation rates and interest rates. Despite the desperate attempt of the French and others to cling to the gold standard throughout the 1920s, by the time of the Great Depression after 1939 a much more uncertain era ensued. As we know, this was the time that Fascism (a variety of nationalism and militarism, reinforced by ideological racism) took hold in much of Europe.

Flashback: The adoption of the gold standard

Today, we read a lot about the European Monetary Union (EMU) which came about in 1999 and ushered in the euro as the common currency of a bloc of 18 states. But, in a curious way, Europe enjoyed a brand of monetary union for the 50 years before 1914. It was called the gold standard.

Britain effectively adopted the gold standard in the early 18th century when in 1717 the great Sir Isaac Newton, then Master of the Royal Mint, set a conversion rate between gold and silver which favoured gold. Yet Britain only formally adopted the gold standard in 1821 with the introduction of gold *sovereigns*.

Most countries maintained a system of *bimetallism* whereby both gold and silver remained legal tender for another century. It was only in the mid-19th century that the gold standard became truly international. The apogee of gold began when the newly united German Empire adopted the gold standard in 1871. Yet, the full gold standard, with all the major economies of the world linked to gold bullion, lasted only 50 years.

Why fixed exchange rates?

Manufacturing nations which run surpluses and which are creditors tend to favour fixed exchange rates and "sound money" (that is, a strong currency that tends to appreciate) – just as the Germans and Chinese do today. The First World War (WWI) destroyed Britain's trade surplus, and with it the classic gold standard. America emerged as the leading financial power. The inter-war period saw a failed attempt to return to the gold standard, hampered by the lack of international co-operation that had characterised *la belle époque* before the War.

The last nation to abandon the gold standard was France in 1932. For decades, before and after WWII, the French Franc remained a weak currency which was unable to compete, post-1952, with the Deutsche Mark. The French mandarinate never abandoned their hope of re-establishing French monetary dominance. As I have explained previously, President Mitterrand offered Germany a deal: a com-

The silver standard

America, for a period from the end of the 19th century to the beginning of the 20th came close to adopting the silver standard that would have favoured silver above gold. The Coinage Act, enacted by the US Congress in 1873, embraced the gold standard and de-monetised silver. This was known by mining interests and others who favoured silver as the *Crime of '73*. I recently visited a former silver mining town in Colorado – Georgetown – which was one of many in the West which were effectively decimated by this measure. William Jennings Bryan (1860-1925) had the following for his slogan in the 1896 presidential election in which he ran for the Democrats and the Populists: *You shall not crucify mankind upon a cross of gold.*

"WHAT ENABLED THE SYSTEM TO FUNCTION – AS THE DISTINGUISHED ECONOMIST PETER OPPENHEIMER HAS POINTED OUT – WAS FLEXIBLE LABOUR MARKETS, WHICH ENABLED MONEY WAGES TO BE REVALUED (UP) AND DEVALUED (DOWN) INTERNALLY."

mon currency in return for consent for German reunification.

After it had fallen apart, John Maynard Keynes warned against the folly of trying to reinstate the pre-1914 monetary system in his masterful tract *The Economic Consequences of the Peace* (1919). He followed up with A *Tract on Monetary Reform* (1923). Despite these reasoned arguments, Winston Churchill, as Chancellor of the Exchequer, returned the UK to the gold standard in 1926, albeit briefly. Hence Keynes's next great tract – *The Economic Consequences of Mr Churchill*.

During the decade and a half that followed, the most extreme depression in modern economic history occurred further to the stock market crash of 1929. Economic policy diverged between nations and currency rates were fixed by decree. This gave rise to vibrant currency black markets which are still prevalent in certain emerging markets.

Labour wages and migration

Under the gold standard member states defined their currencies immutably in terms of gold. But at times countries were forced to adjust interest rates to maintain the level of their currency. What enabled the system to function – as the distinguished economist Peter Oppenheimer has pointed out[i] – was flexible labour markets, which enabled money wages to be revalued (up) and devalued (down) internally. This was the factor that the architects of the European common currency – the Euro – wanted to forget.

In 19th-century Europe, the impact of negative wage adjustment in the labour markets was addressed by the mass migration of people from Europe to economies which were short of labour. Millions of European migrants made it to the USA, Canada, South Africa, Australia and New Zealand which were growing dynamically and were severely underpopulated. I recently visited Ellis Island in New York Bay where I learnt that only two percent of the countless dispossessed who arrived there in the early 20th century were returned to their homelands.

EU citizens are permitted to migrate to other EU countries; but opportunities to migrate to counties outside Europe are now, historically speaking, quite limited. British-born people are not even permitted to migrate automatically to Canada, Australia or New Zealand – English-speaking countries where HM The Queen is Head of State. (Though I hope that may change after the post-Brexit re-calibration that awaits us.) Yet much of the world today stares into the wonders of Facebook and plots their journey to Europe and America – whether they are entitled to go there or not.

Bretton Woods

Winston Churchill sent John Maynard Keynes to represent Britain at the Bretton Woods Conference (named after the town in New Hampshire where it took place) in 1944. He arrived at the conference with an audacious proposal. Keynes wanted to establish a new international currency which would replace the gold standard. All countries would have an overdraft with the World Bank-IMF denominated in a synthetic reserve currency called *Bancor*. This uber-currency would be valued initially in terms of gold but *would not be convertible into gold.*

In the event, the Americans rejected Keynes's "funny-money" solution and imposed the dollar peg. All currencies were to be valued in terms of the US dollar; but the dollar itself would be linked to gold. The price of gold was set in stone at $35 an ounce.

Under the Bretton Woods system exchange rates were fixed domestically in terms of the US dollar, but capital could not flow freely between countries as this would have permitted speculators to exploit interest rate differentials between countries. Thus capital or exchange controls were imposed, limiting the export of both cash and bank account money. In fact these persisted long after Bretton Woods was abandoned in 1971. It is incredible to reflect that until Mrs Thatcher came to power in 1979 British people could not take more than £25 out of the country in cash for their holidays!

The Nixon Shock

The Bretton Woods system endured until the Nixon Shock of 1971 when President Richard Nixon and his Treasury Secretary, John Connally, uncoupled the dollar from the price of gold. As a result, all currencies were left "to float" in the foreign exchange markets.

For the first years after WWII the Bretton Woods system worked well. With the Marshall Plan, Japan and Europe were rebuilding from the War and required dollars to spend on American goods. Because the US owned over half the world's official gold reserves (574 million ounces at the end of World War II) the system appeared secure.

However, as Europe and Japan recovered, the US share of the world's economic output dropped significantly. Eventually the US balance of payments went into deficit. At the same time America's public deficit began to balloon as a result of the Vietnam War, President Johnson's Great Society social programme and the space race. These, plus inflation, caused the dollar to become increasingly overvalued in the 1960s.

In France, the Bretton Woods system was called "America's exorbitant privilege". In February 1965 President Charles de Gaulle announced his intention to exchange France's US dollar reserves for gold at the official exchange rate. By 1966, non-US central banks held $14 billion of gold, while the United States had only $13.2 billion of gold reserves.

In May 1971, West Germany left the Bretton Woods system, unwilling to revalue the Deutsche Mark again. Its economy strengthened. The dollar started to fall against the Deutsche Mark. Other nations began to demand redemption of their dollars for gold. Switzerland redeemed $50 million in July and France $191 million. On 05 August 1971 the US Congress released a report recommending the devaluation of the dollar. On 09 August, Switzerland left the Bretton Woods system. Finally, President Richard Nixon and Treasury Secretary John Connally pulled the plug, announcing the US dollar would no longer be convertible into gold. The gold price and all currencies were left "to float".

The mighty greenback lives on

Despite the abandonment of the dollar peg, commodities continued to be overwhelmingly priced in dollars. Soon after the end of Bretton Woods came the Arab-Israeli Yom Kippur War (1973). Thereafter, OPEC (Organisation of Petroleum Exporting Countries – dominated by Arab states) initiated an oil blockade. The US government responded by wooing the Saudis assiduously. In time, they struck a series of deals with Saudi Arabia, creating the *petrodollar system*. Banks built up huge deposits of offshore dollars which in turn drove the Eurodollar (offshore dollar) loan and bond markets which were rampant in the 1980s.

The US promised to protect the desert Kingdom's vital interests in return for unhindered exports of oil. In exchange, Saudi Arabia would use its dominant position in OPEC to ensure that all oil purchases were transacted in US dollars. And until recently, virtually any-

Post-1971: Banks profit from the FOREX market

Since 1971 exchange rates between currencies vary second by second as bank dealing rooms all around the world trade with one another quoting BID-OFFER prices. According to the Bank for International Settlements (BIS) trading in foreign exchange markets averaged $5.09 trillion per day in April 2016. This was down from $5.4 trillion in April 2013 but well up from $4.0 trillion in April 2010.

Measured by value, foreign exchange swaps were traded more than any other instrument in April 2016, at $2.4 trillion per day, followed by spot trading at $1.7 trillion. This is many times the underlying value of world trade. So, most dealing on the FOREX market is speculative. Left-inclined economists will tell you that the FOREX markets are a scam; most right-inclined economists argue that speculation creates a liquid market from which *real prices* emerge.

Banks have benefited from floating exchange rates which have facilitated the massive foreign exchange markets plus the need for clients to buy financial products which mitigate exchange rate risk. These in turn gave rise to more sophisticated *synthetic* financial products and to the rise of *financial engineering*. It could be said that the seeds of the Credit Crunch of 2008 were sown in 1971 when the Bretton Woods system was abandoned and the world of floating exchange rates was born.

But it should be noted that the size of the FOREX market seems now to be in decline – and that is more bad news for banks. One reason is that near-zero interest rates in Europe, North America and Japan have reduced interest rate differentials which impel foreign exchange price movements.

"THE AMERICANS HAVE A HUGE STAKE IN THE DOMINANCE OF THE DOLLAR. CONSIDER THAT THE ADDRESS OF THE WHITE HOUSE IS 1600 PENNSYLVANIA AVENUE – AND THAT OF WORLD BANK-IMF IS 1700 PENNSYLVANIA AVENUE!"

one who wanted to import oil from any country needed US dollars to pay for it. In addition to oil sales, the US dollar is used for an estimated 80 percent of all international transactions.

Conspiracy theorists claim that Saddam Hussein was taken out by America because he announced in 2000 that he did not want to sell Iraqi oil "in the currency of the enemy". They further claim that that Libyan dictator Muamar Gaddafi was also dealt with because he planned to launch a pan-African currency backed by Libyan gold.

Personally, I think this is just conspiracy theory... though there is a mystery about what has happened to Gaddafi's gold reserves... Nonetheless, there is a serious point to be made here: namely that the Americans have a huge stake in the dominance of the dollar. Consider that the address of the White House is 1600 Pennsylvania Avenue – and that of World Bank-IMF is 1700 Pennsylvania Avenue!

The Age of Debt

The word *credit* comes from the Latin *credere* – to believe. Debt, like the existence of money, involves an act of belief. In August, 2011 the USA lost its AAA rating for the first time. America's most recent rating is AA+ which maps to a probability of default of about 2 percent over a 20-year timeframe. So America has a 1/50 chance of going bankrupt – but probably won't. These probabilities of default have increased across the sovereign and corporate debt sectors in the 46 years since the Nixon Shock because the level of outstanding debt has exploded.

Most government debt and even corporate debt is now deemed *permanent* in the technical sense that everybody knows that it will never be repaid – it will just be refinanced going forward, and normally seamlessly. The British government has had no challenge in virtually tripling the national debt since 2010 – and the gilts market envisages that that will rise by another 25 percent in the next six years without ado. The Western world – but not the BRICs – is drowning in debt. How was that allowed to happen?

The key point is that under the gold standard and Bretton Woods, governments and banks could not just create or print money: there was a notional relationship between the stock of money in the system and the stock of gold reserves. After gold was abandoned there was no such restraint. Banks could lend and thus create money in the system with gay abandon – and that is what happened. This, of course, led to inflation.

The first great wave of inflation to hit the West followed the Nixon Shock almost immediately. By 1975 Britain was experiencing 25 percent or so inflation and by 1976 this country had to go cap in hand to the IMF for a bail-out.

If we can characterise the fundamental difference between a gold-based system and that of "paper" or fiat money it is this. Gold is no one else's liability: you can own it outright. Paper or electronic money is always a claim on someone else – whether a bank or a government – which they might not be able to meet, involving risk. As Philip Coggan[ii] writes, under fiat money, *money is debt and debt is money*.

Eventually, in 2008, the Western financial system became so inundated with debt that it collapsed. It had to be bailed out by governments who have effectively assumed that debt onto their national balance sheets. It is now becoming clear that we shall never recover from that catastrophe.

The future of gold in the international monetary system

For all that, it is very unlikely that gold could ever be restored as the key reference commodity in the global monetary system.

For a start, there just isn't enough of it about. For a gold standard system to endure the amount of gold in existence should grow at the same rate as the global money supply, but that is just not feasible as gold miners could not get the precious metal out of the ground fast enough. In the late 19th

"IT IS VERY UNLIKELY THAT GOLD COULD EVER BE RESTORED AS THE KEY REFERENCE COMMODITY IN THE GLOBAL MONETARY SYSTEM."

century, the monetary order was able to cope because new supplies of gold came on stream from huge fields in South Africa, Australia, the Western USA and elsewhere. (Much stimulated by the overwhelmingly white male fortune hunters of the British Empire.) That is very unlikely to be repeated – unless we could mine gold in the asteroid belt (though whether that would ever be economically feasible I could not say.)

Moreover, a new gold standard would require that, in an environment of price stability, labour wages would have to adjust instead of exchange rates. As we have seen, that was addressed in the late 19th and early 20th centuries by exporting labour to the New World so that supply and demand for labour would remain in equilibrium. That is obviously no longer feasible today.

As far as I am aware, no serious economists are arguing for a return to the gold standard – even though many regard the present system as inherently flawed.

Enter the cryptocurrencies

Bitcoin was supposedly developed by a mysterious Japanese computer scientist by the name of Satoshi Nakamoto. The blockchain technology that drives bitcoin was first revealed to the world in January 2009. This was the first system to resolve the notorious *double spending problem* inherent in previously envisaged digital currencies. By means of a distributed *blockchain* database, each unit of digital currency can be spent only once per transaction.

The key idea is that every time someone pays a bitcoin to purchase an item someone else (the seller) acquires that bitcoin. The history of who paid that particular bitcoin and who acquired it is recorded on the distributed ledger for evermore. Imagine that the pound coin in your pocket contains a microchip on which is recorded every transaction in which it was ever used – plus the identity of all those that have ever owned it. Because the data associated with each bitcoin is stored on the distributed ledger, no one user can trace where each bitcoin has been (although there are people working on this like the UK-based unicorn **Elliptic**).

Only the master bookkeeping system can combine the various ledgers to create the final accounts. In the weird world of bitcoin, the central bookkeeping system is called the **Hard Fork**. New bitcoins can only be "minted" and distributed by the Hard Fork. In November 2017 the Hard Fork controlled about one billion bitcoins. Just to confuse everybody further, on 01 August this year bitcoin split into two derivative digital currencies, the classic bitcoin (BTC) and Bitcoin Cash (BCH). There even appears to be a third currency – Bitcoin Gold (BTG). So bitcoin is not even one thing.

Do cryptocurrencies have intrinsic value?

Two years ago you could have bought a bitcoin for $300. A day after breaking above the $9,000 level, bitcoin on 27 November reached $9,700, boosted by growing signs that mainstream financial institutions are buying it. About 100,000 *Coinbase* accounts were added over the 24 November Thanksgiving holiday, while the **Chicago Mercantile Exchange (CME)** announced that it will list bitcoin futures in the second week of December.

It seems that the supply of new bitcoin is restricted while demand is booming. This has attracted attention from commentators who wonder if there is not some kind of market mania afoot – akin to the tulip bulb mania which raged in the Dutch Republic in the 1630s.

If bitcoin is money – a currency – it should pass two tests. It should be a medium of exchange (you can buy and sell goods and services with it) and it should remain a store of value. It surely passes the first test; but I think it fails the second – especially as most purchases of bitcoin are not to facilitate transactions but seem to be entirely speculative in nature.

Unlike the pound coin in my wallet, bitcoin is not backed up by the state through the institutional control of a central bank. A currency that is not backed up by a central bank is not technically a currency: it has the same relationship to money as the points you accumulate on your Nectar Card when you shop at **Sainsbury's (LON:SBRY)**. But there is no reason why there should not be a secondary market in Nectar points: if they can be used to purchase goods they have a value. (No doubt well-informed readers will write it to inform me there is one.)

The mysterious Satoshi Nakamoto

"Satoshi Nakamoto" created the domain name **bitcoin.org** in 2008. He continued to collaborate with other developers until 2010 when he handed over control of the source code to a certain Gavin Andresen, a software developer based in Amherst, Massachusetts. In 2012 Andresen founded the Bitcoin Foundation, the stated mission of which is "to standardize, protect and promote the use of bitcoin cryptographic money for the benefit of users worldwide". In 2014 Andresen left his software development role to concentrate on his work with the Foundation.

It is not clear who "runs" bitcoin on a day-to-day basis – or even whether it needs to be managed at all since, once established, the system is decentralised and self-perpetuating. And that is precisely why governments and central bankers are so unhappy: they have been entirely usurped. Hence China banned Bitcoin exchanges on 30 September this year. Malaysia is considering doing the same. South Korea has banned *all* new cryptocurrency sales.

Nor can bitcoin be compared to a physical commodity such as gold. Gold has limited industrial applications but is valuable if you want to make jewellery. It still exerts a psychological lure over the human psyche. Even tulip bulbs have an intrinsic value given that you can plant them and grow flowers that will give you pleasure. Bitcoin et al have absolutely no intrinsic value whatsoever.

Devotees of digital currency will argue that conventional currency has no intrinsic value either. On the UK ten pound note there is an inscription as follows: *I promise to pay the bearer on demand the sum of Ten Pounds* – signed by the Chief Cashier of the Bank of England. So, in theory, I can arrive at the Old Lady of Threadneedle Street, hand over my ten pound note and demand... ten pounds. At which point they will give me an identical ten pound note – and some very funny looks.

The central bankers' darkest secret...

In June 2016 experts in Blockchain technology met with Chair of the Federal Reserve, Janet Yellen, during an event in Washington DC to discuss ways in which the technology could improve the financial system and strengthen cybersecurity. Central banks from over 90 countries participated at the event entitled *Finance in Flux: The Technological Transformation of the Financial Sector.*

According to the speculator and guru, Doug Casey, the real purpose of this meeting was to discuss how state monopoly digital currencies could revolutionise the global monetary system. Doug Casey thinks that the Fed is already planning to respond to the de-dollarization of world trade by creating a parallel dollar in the form of a digital currency in the mould of bitcoin. Mr Casey has christened this proto-currency *Fedcoin*.

This digital currency will have no paper form but will be accessible via laptops and smartphones. The Fed will operate an electronic ledger that is continuously updated and verified in *blocks* of records. It will be shared on computer servers between various parties and protected cryptographically to prevent it from being modified.

Why the Chinese want to overthrow the US dollar

Keynes's idea of a synthetic international reserve currency never went away. In fact it was resurrected for a time in the form of *Special Drawing Rights* (SDRs), a composite currency issued by the World Bank. Then, before the Euro, the Europeans introduced an inter-bank proto-currency called the **Écu**. These were both discarded.

Meanwhile the Chinese are busy...

In November last year rumours surfaced that the People's Bank of China (PBOC) was researching its own sovereign digital currency. China's central bank banned Bitcoin in 2013, saying that Bitcoin was not a real currency and could not become legal tender.

In June this year it was reported by *CryptoCoins News* that the PBOC is already testing its own digital currency. China's plan, according to this source, is to integrate the digital currency into the existing banking system by allowing banks to operate digital wallets on behalf of the central bank.

For single-party state, authoritarian China, the prospect of a monopoly digital currency running on Blockchain must be compelling. Once they abolish cash, *all* transactions can be monitored by the state. Big Brother is watching you!

Now, there are reasons why a state-backed digital currency would do the job of international reserve currency most effectively. Firstly, states could set their exchange rate by reference to a digital currency that was ultimately backed by a major power (China?). Second, the FOREX markets which are transacted by banks could be by-passed completely. So, in theory, currency sales and purchases could be restricted to underlying trade transactions – such that speculation would be entirely eliminated. The banks would clearly lose a major source of revenue, but one could argue that those revenues are unnecessary transaction costs. Thirdly, commodities could be priced in the digital currency which would eliminate exchange-related price fluctuations.

But who would pioneer a digital international reserve currency?

In 1971 Secretary Connally told the world: "The dollar is our currency – but your problem". That is precisely why the Chinese cannot wait to overturn the existing global monetary order. The Chinese, and to a lesser degree the Russians, believe that the international monetary system, such as it is, is biased in America's favour – and works much to their disadvantage. Remember that the Russians, since 2014, have been subject to sanctions which restrict their ability to raise dollars in the capital markets.

In the short term both countries wish to push for "de-dollarisation". That is the idea that most major commodities should be de-coupled from the US dollar and traded in other major currencies. Evidence of de-dollarisation is that Russia's second largest financial institution **VTB (MCX:VTBR)** and **China CITIC Bank Corporation Limited (SHA:601998)** signed a massive energy deal in May 2014 bypassing the dollar and agreeing to pay each other in their own domestic currencies. Russia will supply an estimated $450 billion of natural gas from eastern Siberia to China over the next 30 years. Remember China is the world's biggest energy market while Russia is the world's largest energy exporter.

Secondly, China wants – in Doug Casey's words – *to castrate the dollar*. Just recently it was reported that the **Shanghai International Energy Exchange** is introducing a crude oil futures contract denominated in Chinese yuan/renminbi. This will allow oil producers to sell their oil for yuan/renminbi. Of course, the Chinese understand that most oil producers don't want to accumulate large reserves of Chinese currency. So this is the key point: producers will be able to efficiently convert Chinese currency into physical gold through gold exchanges in Shanghai and Hong Kong. It seems that two major oil exporters which sit on the international naughty step – Iran and Venezuela – have already signed up. Angola – another major oil exporter – started selling oil to China in yuan/renminbi in 2015.

Could this be why the Trump administration has taken such an emollient stance towards Saudi Arabia and its dynamic new leader Prince Muhammed bin Salman (MbS)? It was reported last month that Jared Kushner, Mr Trump's son-in-law and confidant spent an entire weekend one-to-one with MbS... If Saudi Arabia started selling its oil in yuan/renminbi then that could spell the end of the dollar era. But they would pay a price as they would lose America's guarantee of military protection against Saudi Arabia's real enemy – Iran.

There is currently speculation that Chinese institutions will try to purchase a stake in Aramco when the estimated $25 billion IPO goes ahead next spring. That could buy them influence over the Kingdom's oil export policies.

Once a significant portion of global oil sales are denominated in yuan/renminbi, China can then argue that the global dollar-based system is now defunct. By that point they will have a viable national cryptocurrency against which their BRICs partners (Russia, Brazil, South Africa – though maybe not India) plus other regional neighbours – the Philippines, Malaysia, Singapore, Indonesia – could fix their own exchange rates. That would betoken a new global monetary order – and a massive shift of global power.

Action

The eventual demotion of the dollar will result in a crash in its value and high inflation domestically in America which could severely undermine the US economy. At least until it adapts – cheaper wages in America would surely bring back jobs that have been outsourced to low-wage countries. There would most probably be pressure calls to re-impose exchange controls.

> **"CHINA WANTS – IN DOUG CASEY'S WORDS – TO CASTRATE THE DOLLAR."**

This change could come about sooner than we think. The price of gold would be likely to harden and some exposure to gold would prove a useful hedge. But a new global monetary order driven by the Chinese would probably bring about a return to "normal" levels of interest rates and that could attenuate any upward pressure on the price of gold. Finally, commodity prices in the West could be adversely affected. If you believe that the Chinese currency is set for rapid appreciation it would pay to increase your portfolio's exposure to Chinese assets and to hedge this with exposure to gold. One possible candidate for such a hedge is the Old Mutual Gold & Silver Fund.

About Victor

Victor is a financial economist, consultant, trainer and writer, with extensive experience in commercial and investment banking and fund management. His career includes stints at JP Morgan, Argyll Investment Management and World Bank IFC.

i **See: The Euro: The lessons of history, Peter Oppenheimer, 15 July 2015 available at: https://www.theparliamentmagazine.eu/blog/euro-lessons-history**

ii **Paper Promises – Money, Debt and the New World Order, 2011, Penguin by Philip Coggan.**

BY NICK SUDBURY

FUNDS IN FOCUS

5 INFRASTRUCTURE FUNDS TO PROTECT YOU AGAINST HIGHER INFLATION

A modern economy can only function efficiently if its infrastructure is up to the task. Essential assets like good quality roads, bridges, railways and hospitals play a vital role in all of our everyday lives, but these facilities are expensive to construct and maintain and command premium prices.

Historically most of the critical infrastructure in the UK was directly funded by the public sector, but this all changed in 1992 with the introduction of the Private Finance Initiative (PFI). This controversial policy brought in by the Tories and then heavily extended under Tony Blair changed the way that large-scale investment in this area is financed.

PFI was designed to encourage private investors to design, build, fund and operate critical public infrastructure projects such as new schools, hospitals, social housing, defence contracts, prisons and road improvements. There are now hundreds of these schemes in operation around the country.

The way it works is that the private sector delivers the infrastructure and the public sector then contracts to use it for a minimum period of 25 to 30 years with the money being used to repay the investors.

In theory, PFI provides an efficient means of attracting capital to pay for the essential assets that we all depend on, but it is not cheap. The cost of debt is in many cases much higher than government debt and the service charges tend to be expensive and costly to change, which is good news for the people providing these facilities but not so good for the taxpayers who end up footing the bill.

How to benefit from the impressive returns

Infrastructure assets typically provide attractive, stable, long-term returns that tend to increase in line with inflation. The easiest way to benefit is to buy one of the associated investment trusts.

BBGI (LON:BBGI) is a good example of the sort of exposure you can expect from the sector. The £658 million fund has invested in 39 mostly fully operational projects including the M80 Motorway in Scotland, the Mersey Care Mental Health Hospital in Liverpool, seven fire stations in Stoke on Trent and Staffordshire, and the Golden Ears Bridge in Canada.

These sorts of assets would normally be expected to appreciate in value over time. The fact that they have good quality public sector tenants means that there is very little risk of default and they are often committed to paying high rent and service charges with regular inflation-linked increases.

Hospitals, motorways, fire stations and the like are illiquid assets that cannot be sold quickly or cheaply, but that is not normally a problem for an investment trust. This is because shareholders can buy or sell the investment trust's shares whenever they want on the London Stock Exchange without there being any cash flow implications for the underlying portfolio.

According to data from the analysts at Winterflood, the listed infrastruc-

"INFRASTRUCTURE ASSETS TYPICALLY PROVIDE ATTRACTIVE, STABLE, LONG-TERM RETURNS THAT TEND TO INCREASE IN LINE WITH INFLATION."

> **"LISTED INFRASTRUCTURE FUNDS HAVE GENERATED AN AVERAGE SHARE PRICE RETURN OF 63% OVER THE LAST FIVE YEARS AND ARE YIELDING AN AVERAGE OF 5.1%."**

ture funds have generated an average share price return of 63% over the last five years and are yielding an average of 5.1%. The strong performance and high income have attracted a lot of investor interest and pushed the shares up to an average 8.6% premium to net asset value (NAV).

Red flag

Some people believe that the costs of the PFI contracts are excessive and place an unfair burden on the public finances at a time when they are already overstretched. This prompted the surprise announcement by the Shadow Chancellor, John McDonnell, at the Labour Party Conference in September that a Labour government would not enter into any new PFI contracts and would bring existing contracts "back in-house".

Since then there has been quite a lot of back tracking with Labour saying that they would review existing PFI contracts and that not all of them would necessarily be brought back in-house. It has been suggested that the contracts would be exchanged for government debt, although it is not clear how the process would work.

Jeremy Corbyn's leftist Labour Party has also announced that it would nationalise the rail, energy and water companies, which would have implications for other elements of the infrastructure sector if it ever came to fruition.

Some of the infrastructure investment trusts have a higher exposure to UK PFI investments and regulated assets (such as water companies) than others. Those with potentially the most to lose are **John Laing Infrastructure (LON:JLIF)**, **BBGI (LON:BBGI)**, **HICL Infrastructure (LON:HICL)** and **International Public Partnerships (LON:INPP)** with all four seeing their share prices fall 2% to 3% during the Labour Party Conference.

Much ado about nothing

Even if there is a left wing Labour Government there is no guarantee that anything will come from the proposals. The analysts at Canaccord Genuity are unconvinced by the practicalities of nationalising PFI contracts given

the complexities involved and the significant compensation that would be required to terminate these arrangements.

PFI contracts typically document a right for the project companies to receive compensation if they are voluntarily terminated by the public sector and normally this compensation is based on market value. It is also likely that any decision to nationalise PFI contracts would be followed by numerous legal challenges.

Another potential threat is the recent increase in interest rates by the Bank of England with the prospect of further increases to follow. These would be expected to have a negative impact on the value of infrastructure assets, hence the reason for the recent weakness in the share prices of the funds.

The value of an infrastructure asset is calculated using a discounted cash flow model that takes into account all of the future income and expenditure and then works out the present value of these amounts based on the current level of interest rates.

Higher rates reduce the value of income that accrues in the future, and the further in the future it is the bigger the discount. This makes long-term infrastructure assets vulnerable to rising interest rates unless they can offset the effect by increased demand for their assets (such as toll roads or bridges) or via inflation-linked increases in their income.

"SINCE THE LABOUR PARTY CONFERENCE THE SECTOR HAS SEEN AVERAGE SHARE PRICE FALLS OF AROUND 7% AND A NARROWING OF THE PREMIUMS TO NAV, WHICH COULD BE SEEN AS A BUYING OPPORTUNITY."

Since the Labour Party Conference the sector has seen average share price falls of around 7% and a narrowing of the premiums to NAV, which could be seen as a buying opportunity if you think their proposals will come to nothing and that the interest rate rises will be offset by higher inflation or more economic activity.

Funds to consider

The Winterflood investment trust team recommend the £2.7 billion **HICL Infrastructure Company (LON:HICL)**, which has made some significant changes to its portfolio in the last few months.

HICL invests in fully operational projects that deliver steady returns and has made some big alterations to its holdings. The most notable of these was the recent purchase of a 36.6% stake in Affinity Water, the largest water-only company in England, which has 1.5 million customers in the south east of the country.

To pay for its recent acquisitions the company raised £260 million of new capital in March and a further £267.7 million in June. It has since announced an investment in the High Speed Rail project with a net funding requirement of £140 million, which suggests that there could be another capital raise before the end of the year.

Other major holdings include: the new Home Office HQ in Westminster, the Pinderfields and Pontefract Hospital in Yorkshire, the M1-A1 Link Road, and the Dutch High Speed Rail Link that connects Schiphol Airport to the Belgium border.

HICL is also on the buy list at Canaccord Genuity on account of its 'superior long-term risk-adjusted returns, an ability to preserve capital and low correlation with other asset classes'. These attractions are further compounded by the strong income characteristics of the portfolio.

The fund has delivered a solid share price return of 60% over the last five years and is yielding an attractive 5.1% with quarterly dividends. Its current premium of 4% is about a third of the level it has averaged over the last 12 months, which could make it a good time to buy, although the extent of the recent changes warrant a certain degree of caution.

Numis have a core buy recommendation on **International Public Partnerships (LON:INPP)** (see fund of the month below) and **3i Infrastructure (LON:3IN)**.

3i Infrastructure differs from the rest of the sector as it aims to invest in asset-owning businesses rather than acquiring concessions to run a particular asset for a limited period of time. There has been a lot more competition for these attractive investments in recent years, especially from Sovereign Wealth and pension funds, which has reduced the target returns for new projects.

The manager has rotated out of many of its regulated assets in favour of Private Equity style investments that generate revenues under a mixture of short- and medium-term contracts. It now has just two regulated assets left: Elenia, the Finnish electricity distribution business; and the Anglian Water Group. If they are sold the proceeds could be used to pay down debt with some of the money potentially being used to provide a capital return to shareholders.

3i aims to generate a shareholder return of 8% to 10% per annum over the medium term, but the recent performance has been significantly stronger with a five-year increase in the share price of 98%. The shares are yielding just under 4% and are trading on a 12% premium to NAV.

The analysts at Canaccord Genuity have a buy recommendation on **BBGI (LON:BBGI)**, which has more of an international portfolio with significant exposure to infrastructure assets in the UK, Canada and Australia. It has the lowest ongoing charges in the sector (0.95%) on account of it being self-managed and has generated a share price gain of 59% in the last five years. The shares are yielding 4.7% and are trading on an 11% premium to NAV.

About Nick

Nick Sudbury is an experienced financial journalist who has written extensively for a range of investment publications aimed at both private and institutional investors. Before moving into journalism he worked both as a fund manager and as a consultant to the industry. He is a fully qualified accountant and has an MBA with finance specialism.

FUND OF THE MONTH

International Public Partnerships (LON:INPP) invests in public and social infrastructure assets to provide sustainable long-term returns via a mixture of dividends and capital appreciation. Three-quarters of the portfolio is located in the UK with the largest holdings including the Thames Tideway Tunnel, a new £4.2 billion investment in the London sewer network; Cadent, which has a 4.4% interest in National Grid's gas distribution network; and the Diabolo Rail Link that connects Brussels Airport to the rest of the country's rail network.

Numis believe that the managers have built up an excellent portfolio that is capable of generating high quality cash flows with low variability over the long term. For every 1% increase in inflation these are likely to increase by 0.75%, which is the highest linkage in the sector and should help to ensure continued strong performance.

INPP shares are up 60% over the last five years and are trading on a 12% premium to NAV, although they have more scope for capital growth than many of the other infrastructure funds. The investment trust is yielding 4.30% with the dividends paid twice a year.

Fund Facts

Name:	International Public Partnerships (LON:INPP)
Type:	Investment Trust
Sector:	Infrastructure
Total Assets:	£1,910m
Launch Date:	2006
Current Yield:	4.3%
Gearing:	0%
Ongoing Charges:	1.24%
Website:	www.internationalpublicpartnerships.com

BY PHIL THOMAS, FOUNDER & DIRECTOR

WHY IT PAYS TO USE INVESTOR BULLETIN BOARDS

I remember an early comment by another webmaster in our sector who laughingly said, "Of course there's no money in chat boards – they're a complete waste of time and effort." I simply smiled.

Since 2012 when we re-launched the bulletin board facility on lse.co.uk, the flagship website of London South East, there have been 17,575,010 chat posts made by a mere 74,464 users. Some of those users have been registered with us on the website since 2005.

It's a free service we offer, along with the price and research data, news, charts, calendars, calculators, portfolios and watchlists - and lots of other good stuff that investors in the UK markets use to decide what to do with their hard-earned investment capital.

I often get asked, "Why do you run the chat boards? Aren't they a real pain?" The truthful answer is "yes – they can be – but they're worth it."

The value of the bulletin boards

You see, although many visitors to our website first arrive via Google on searches such as "What is Vodafone's share price?" people are often looking for more than just data, statistics and numbers; they are looking for a connection; validation; someone to ask for help, and bounce ideas off. And the chat boards provide that.

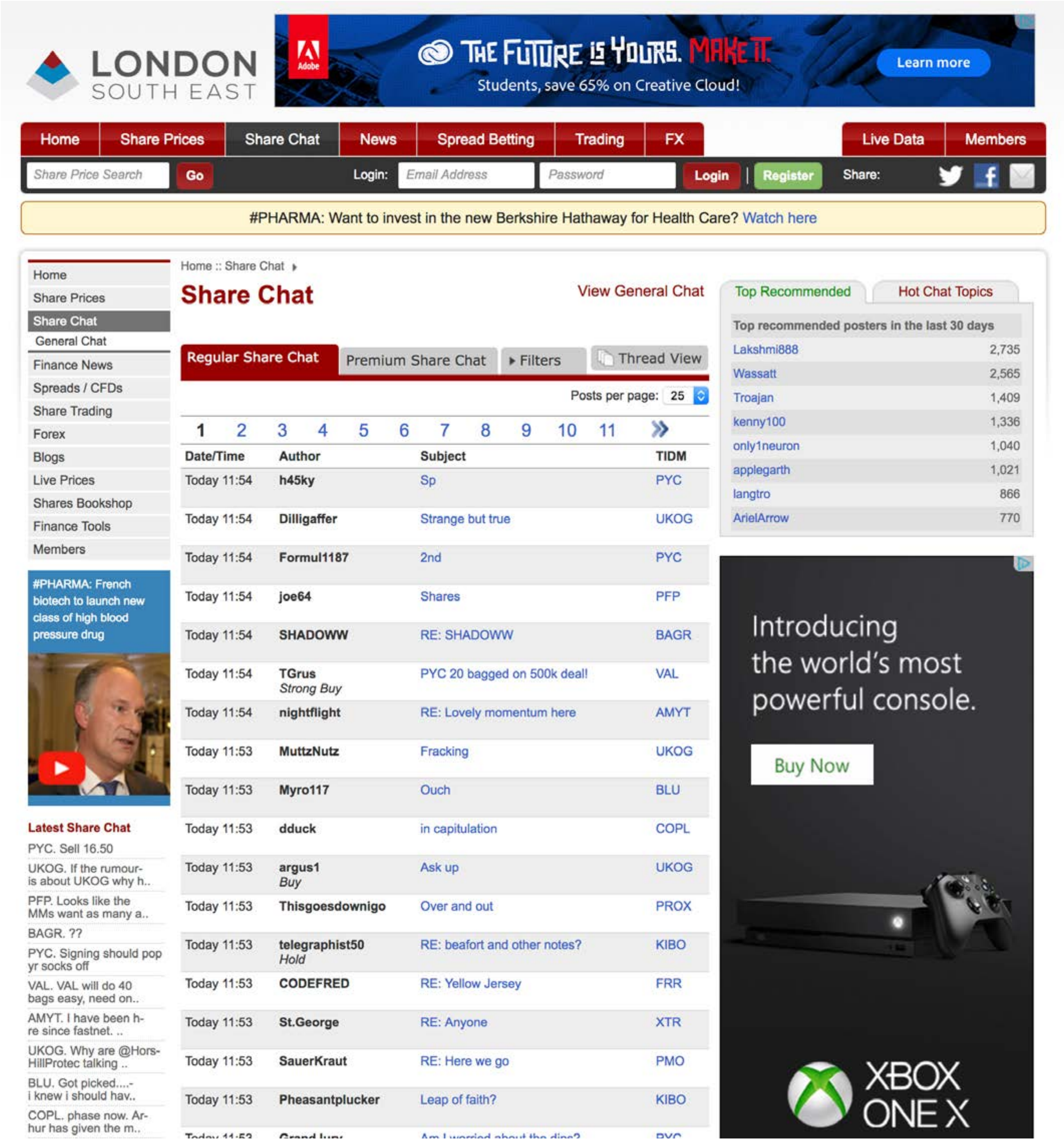
Many of our users have been talking to one another for years now. We have chat-posters with almost celebrity status whose opinions have been proven right, time and time again. And equally, we have users who always seem to appear on the next penny stock having a good week, claiming it's a multi-bagger, fill-yer-boots, and 'boooom!' Of course, there's always the voice of reason, suggesting that newcomers should 'DYOR' – or Do Your Own Research!

The wonder of the chat boards is simply that people keep coming back, keep engaging, keep asking questions, and keep on learning. When commenting on the value of the boards, it's also worth noting that although only 74,000 users have actually made a chat post over the last five years, in the same period over 17 million individual users have read those posts. In simple terms, for every one person that posts, there are 229 people that just like to read.

Chat boards sometimes get criticised for being full of crazy people ranting, or promoting their agenda, or trying to get rich quick, but my experience is that they are just full of people. Some are loud, some are quiet. Some clearly have no idea, while others are clearly well read, and have researched their area of expertise with diligence – and are often willing to share their efforts freely.

Fanatics, bulls, bears, beginners, or analysts - the chat boards provide an important place for people to voice their opinions, ask questions, and learn. In fact, since 2012 there have been over 3.6 million questions asked on the boards. And over 680,000 'thank-you' posts. Like many others, I'll willingly overlook the odd rant to benefit from the experience of investors much cleverer than I, who are happy to share their wealth of knowledge.

LONDON SOUTH EAST



Building the community

We don't have the only large financial chat board in the UK. We believe we're one of - if not the - largest, but other boards do exist. Where we believe we have grown where others may have fallen away, is in the way we look after our chat boards.

We moderate the chat boards constantly – in fact, we employ a number of full-time staff members whose jobs are to respond to queries regarding the chat posts; whether that is reports of abuse, inaccuracies, questions, or foul play.

Our user base is quite passionate about their boards – and we treat them as such – their boards. We try as best as possible to keep the peace, promote fairness, and avoid chaos. And you know what? People keep coming back. One of the sad things about running an Internet business is that all the customers are 'out-there' – we don't often get to meet them. In recent years, we have started to run small investor events, bringing in CEOs of companies popular in the chat, and posing interview questions from the user-base.

This has been highly rewarding – not so much financially, but in the sense that we've got to chat face-to-face with many of our users, hear their feedback, find out what they love about our site, and what we could do better. And they've found value by looking CEOs in the eyes, and asking hard questions. The CEOs have found value by presenting their companies to a relevant and engaged audience, and answering those hard questions.

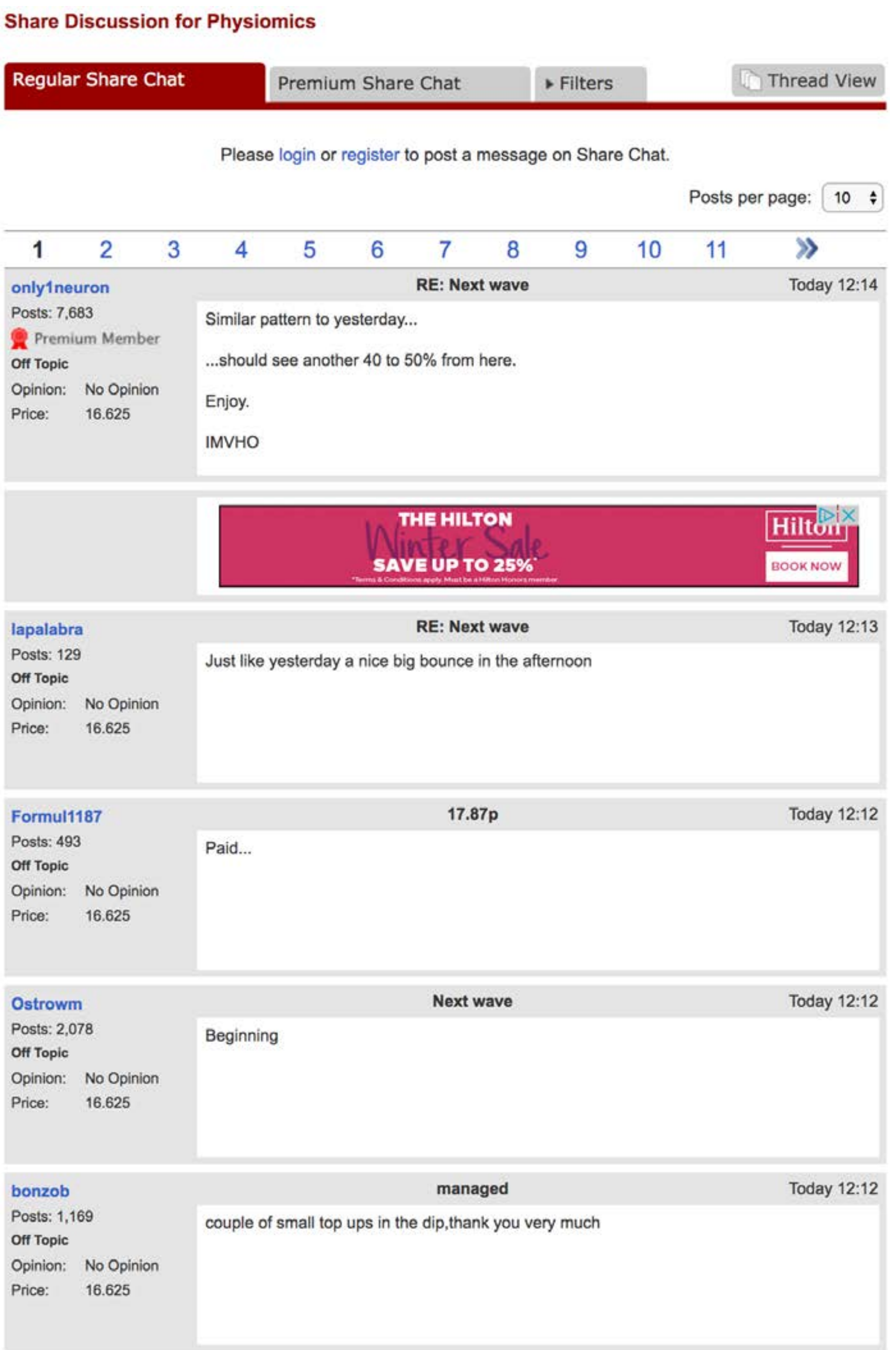
In a recent event, we noticed a number of audience members on their phones, tapping away whilst the presenters were talking. Initially, I was confused – but upon checking, we found that sure enough, they were giving a real-time update to their colleagues on the chat boards about the content of the talks – and were receiving questions to pose to the CEOs from the chatters who were unable to attend. This was great – it took the chat boards to a whole new level – investors were able to reach the owners of the companies in which they were investing and have meaningful dialogue, even if they were unable to be in the same room.

The challenges

Over the years, the chat boards have presented us a number of challenges. Notably, one user who was based on an oil-rig in the North Sea, and was providing information to the chat boards, because in his view he believed that "people deserved to know". We unfortunately had to suspend his account after repeatedly explaining the meaning of 'insider information', and that what he was doing was illegal.

> **"CHAT BOARDS ARE RELEVANT FOR PLCs BECAUSE THEY PROVIDE AN INSIGHT INTO THE MIND OF JOE INVESTOR."**

Another challenge occurred when a disgruntled user decided to sign up a number of free accounts and post hundreds of abusive posts, aimed at us and our staff. It turned out he had a certain amount of technical ability and was initially able to evade our attempts to block his many and varied accounts. The upshot was that we drastically 'upped our game', and have him to thank for our vastly improved security and ability to spot abusive users today. Other challenges have been difficult and some legal, from libel and defamation to insider information and market abuse. We've overcome them by doing the right thing - always protecting users' interests, and staying well within the law. It might surprise people to know that we also have a good relationship with the FCA, and help them to communicate good market practice to our user base.



Why does it matter?

Today, more than ever, people are forming opinions based on what they read online. Social media has played a huge part in this, but often the chat boards are seen as more authoritative – and what we are seeing more and more now is that PLC owners and their PR teams are regularly reading the chat boards related to their companies to gauge sentiment and opinion. How did people react to the latest RNS? What's the view of the current management team? Do people like our product? Are they telling their friends about us?

Chat boards are relevant for PLCs because they provide an insight into the mind of Joe Investor, and allow companies to see what is literally being said on the street about them. For investors, they're a great place to learn, ask questions, meet like-minded investors, connect and sometimes let off steam.

If you've not yet met our chat community, pop along to http://www.lse.co.uk, and click the 'Share Chat' tab. Of course, DYOR!

BY FILIPE R. COSTA

THE MACRO INVESTOR

THE GAS MARKET LOOKS POISED FOR GROWTH

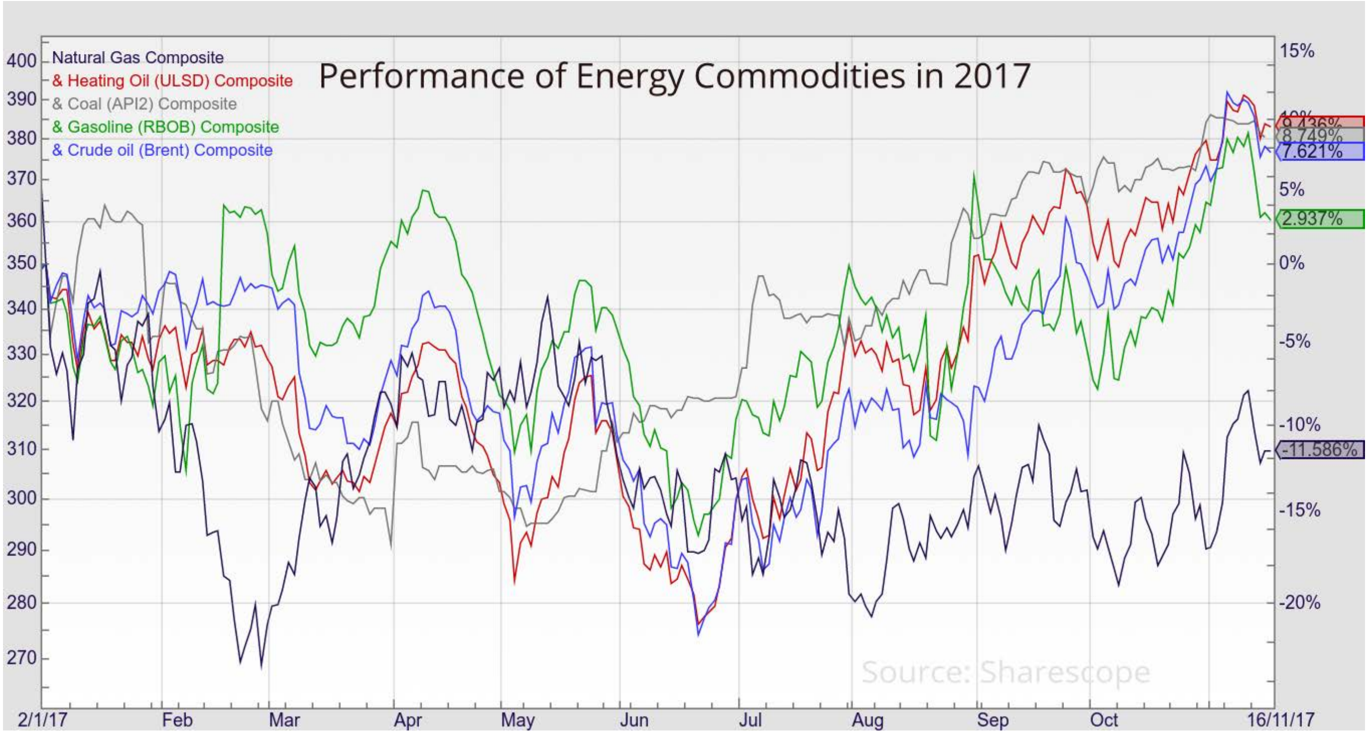
"Out of clutter, find simplicity. From discord, find harmony. In the middle of difficulty lies opportunity."

—Albert Einstein

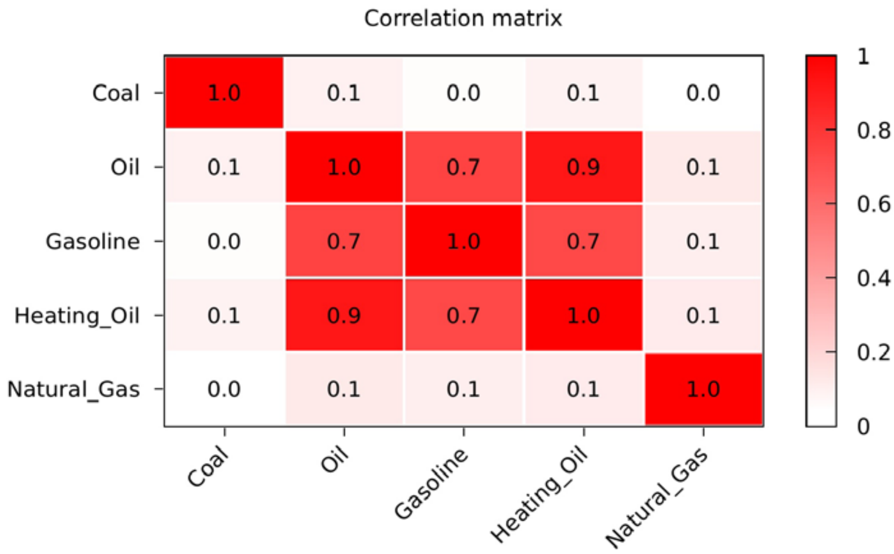
"IF WINTER TURNS OUT TO BE COLDER THAN ANTICIPATED, NATURAL GAS PRICES WILL QUICKLY SPIKE ABOVE $4 FROM THEIR CURRENT READINGS NEAR $3.04."

At a time when most other energy commodities are performing well, natural gas seems to have been forgotten. Brent crude, light sweet, coal, heating oil, and gasoline are all up over the year between 3% and 11%; meanwhile, natural gas has lost more than 18%. A few years ago, we would have expected the energy complex to move in lock-step, particularly with regard to oil and gas. But some structural changes in the market have helped to break the link. The shale revolution that is boosting gas production, the lack of a single international market for natural gas, and a streak of milder than usual winter weather have all conspired to push natural gas down. The election of Donald Trump and his pledge to revive coal and nuclear power has also contributed to bearish sentiment. But, as winter approaches, it is worth taking a closer look at a market where the worst is already taken into account.

If winter comes up softer than usual, there's not much to lose out of long positions in natural gas. After all, the market is already discounting mild weather. But if winter turns out to be colder than anticipated, natural gas prices will quickly spike above $4 from their current readings near $3.04. From the perspective of short-term speculation, natural gas looks well positioned for long bets; and from the perspective of long-term investment, natural gas still offers the prospects of a relatively clean energy that will most likely become the main source of electricity generation over time.



A clean and safe alternative to coal and nuclear



Natural gas is a vital commodity for electricity generation. In general it suffers heavily from seasonality, with demand peaking during winter and summer, particularly when weather is extreme. In this sense, a long position on natural gas is a bet on extreme weather. Because demand for energy increases as air temperatures deviate from some threshold considered 'mild', it is common to use a measure of this deviation, usually known as degree days. The more the temperature deviates from that norm, the larger the number of degree days (see box 1) and the higher the demand for energy.

The recognition of the risks of nuclear power and coal led to a continuous search for cleaner sources of energy like natural gas. With the help of advances in technology, in particular fracking in the U.S., the production of natural gas was boosted to the point where the commodity could be considered one of the most prominent sources of electricity production. The shale revolution allowed the U.S. to become energy self-sufficient. In fact, this revolution was so great that the U.S. will be able to turn itself into a large exporter for oil and natural gas over time.

If, on the one hand, the shale revolution is good news for households and businesses; on the other hand, it is bad news for explorers. The extra supply interacts badly with prices, pressing them to the downside. In the recent past we have witnessed this effect on oil markets. A mix of extra supply and sluggish demand battered the price of crude oil down from $115 a barrel in 2014 to $28 in 2016. Some oil exporters like Russia and Venezuela saw their economies sink, and even Saudi Arabia had to tap the bond market for the first time.

While the natural gas market shares many of the attributes of the oil market, there are points of divergence. In many instances, natural gas is explored by the same companies that explore oil and in the same fields. But the investment case for natural gas is different from oil. Demand for natural gas is growing at a fast pace, which is certainly not the case with oil. There are two main reasons why natural gas may take off in the near future.

Firstly, natural gas is replacing dirty coal and dangerous nuclear power as a source input to generate electricity. In this respect, the Trump administration is promising a move in the opposite direction to that in which the world is moving, pledging to revive coal mining and nuclear power generation. But, as natural gas is becoming cheaper relative to coal and factories plan way ahead of the Trump administration, the final say may not be in the hands of the U.S. President.

Secondly, the liquefaction of natural gas is opening up new opportunities for the U.S. to export its stockpiles. This happened for the first time in 2016 and is still a developing trend. Natural gas is losing its regional status to regain a new, much more relevant international status. In the near future, U.S. households will have to compete with European households for natural gas, which will press prices upwards, particularly because prices are much higher in Europe.

Market fundamentals point to a coiled spring

Winter is about to begin. Usually, demand for heating increases and thus demand for natural gas should also increase. At the same time, explorers are now adding less and less to stockpiles and storage is expected to decline.

The last EIA Weekly Natural Gas Storage Report shows total stockpiles standing at 3.772 billion cubic feet, which is way below the 4.043 billion cubic feet seen one year ago and still below the 3.873 five-year average. At this time of the year, storage starts declining, as injections to stockpiles tend to slow down. We are entering the demand season with a stock of natural gas that is 6.7% below last year and 2.6% below the five-year average. Given the mild weather felt during the last two years, investors and professionals are predicting another above-average-temperature winter. But last year, when stocks were at 4.043 billion cubic feet, we still witnessed a run up in prices of 12% during December. The market is anchoring the last two years as a new norm. But weather predictions are often inaccurate, which leaves room for surprises. While the weather has been warmer during the last two years, the potential for extremes has increased over recent decades. In 2014, for example, a sudden change in weather near the end of the season led to a surge in prices from $3.95 at the end of November 2013 to $6.24 by February 2014.

"DEMAND FOR NATURAL GAS IS GROWING AT A FAST PACE."

Weekly Natural Gas Storage Report – 9/November/2017

	Stocks billion cubic feet (Bcf)				Historical Comparisons: Year Ago (11/03/16)		5-Year Average (2012-16)	
Region	**03-Nov-17**	**27-Oct-17**	**net change**	**implied flow**	**Bcf**	**% change**	**Bcf**	**% change**
East	915	925	-10	-10	944	-3.1	925	-1.1
Midwest	1108	1112	-4	-4	1154	-4	1100	0.7
Mountain	220	224	-4	-4	256	-14.1	221	-0.5
Pacific	315	317	-2	-2	328	-4	364	-13.5
South Central	1214	1212	2	2	1360	-10.7	1264	-4
Salt	341	336	5	5	393	-13.2	347	-1.7
Nonsalt	873	876	-3	-3	967	-9.7	917	-4.8
Total	**3772**	**3790**	**-18**	**-18**	**4043**	**-6.7**	**3873**	**-2.6**

Source: U.S. Energy Information Administration

Being a weather professional able predict winter weather isn't particularly advantageous in this market, because such predictions are already incorporated into prices. Recognising that the best investment opportunities occur when everybody is pointing in the same direction is way more helpful.

Just because we have seen warmer weather during the last few years doesn't mean the same will happen this year. Additionally, we are just at the start of the season, and there is plenty of potential for surprises, which would most likely weigh on the upside for prices, as the base case scenario already points to warmer weather. At the same time, stockpiles are currently 6.7% below what they were by this time last year, which means there is a good likelihood of prices spiking if some weather surprise occurs. It is therefore worth keeping an eye on the gas market during the period December 2017 – February 2018.

How to invest

There are several ways of getting exposure to natural gas, but none of them is without drawbacks. Investing in the spot market is not feasible, and investors instead need to use futures, options, ETFs or stocks of companies directly involved in natural gas exploration & production. The best choice crucially depends on the investment objective and horizon. Futures, for example, are contracts with an expiry date. If an investor wishes to get exposure for one entire year, this means having to roll over these contracts, which may result in heavy costs when the market is in contango (check box 2). Many ETFs are also composed of futures contracts, which means they also suffer from contango. Unlike stocks, which may be kept forever, these ETFs don't make good long-term investments. But as a means of speculating on short-term prices both ETFs and futures may be good options. Some of the possibilities are:

- **UNG – United States Natural Gas Fund.** This ETF is designed to track the daily changes in percentage terms of the price of natural gas delivered at the Henry Hub, Louisiana. While it tracks natural gas prices, the final performance may differ significantly due to expenses. Over time, these expenses may be significant due to the rollover of futures contracts.

- **UNL – United States 12 Month Natural Gas Fund.** This ETF is designed in a similar fashion as UNG but uses longer dated futures to minimise rollover costs. Still, the costs involved may be significant over time.

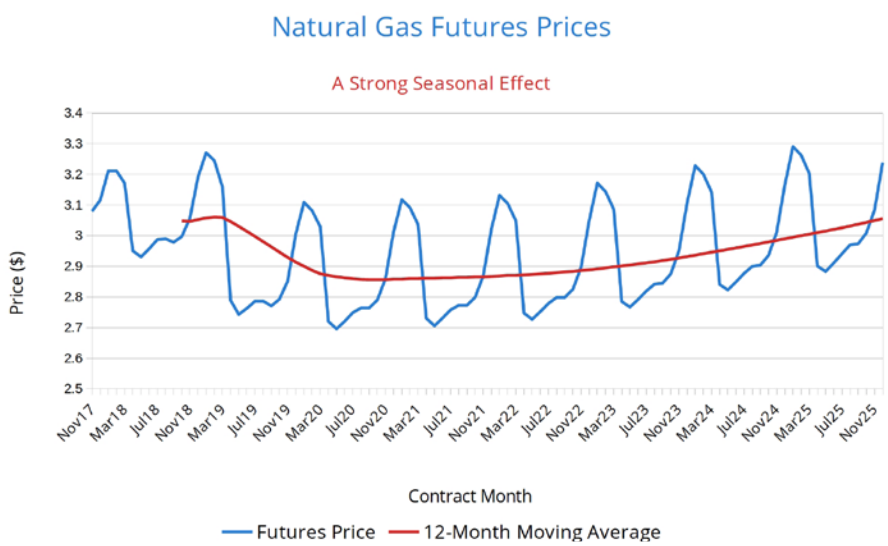
- **BOIL – ProShares Ultra Bloomberg Natural Gas.** This ETF offers 2x daily leverage exposure to natural gas. This kind of product is good to explore expected spikes in natural gas prices over very short periods of time. Over time, it is relatively tough to guess the direction of these leveraged instruments, because, by design, they increase exposure to the market when the price rises, and decrease exposure when the market declines. Investors should use these instruments with precaution, if at all.

- **Futures contracts expiring between January 2018 and March 2018** – An alternative is to buy futures contracts expiring a few months from now. Buying a single contract prevents investors from spending too much money in rollovers.

- **Options contracts expiring between January 2018 and March 2018** – Another alternative is to buy options on natural gas. Options allow investors to control risk, as they know exactly how much they stand to lose from the very beginning, which corresponds to the option premium paid. If natural gas is above the option strike by maturity date, investors receive the difference between the close price and the option strike. Otherwise, premium is lost. Unfortunately options also come with disadvantages: they are costly in general.

- **Spread betting** – Many companies in the UK offer spread betting in almost every asset, which includes commodities. This allows investors to directly place a bet on natural gas spot prices in certain cases. Essentially, spread betting allows investors to place a stake per unit movement in the price of the asset. As an example, let's suppose natural gas is trading at $3.10, which is quoted in decimal terms as 390c. If you place a stake of $100 per point, that means you gain or lose $100 every time the price moves by one cent. If natural gas rises to 380c, your profit would be $7,000 (70 points movement at $100 per point). The advantage of spread betting is that it is relatively easy to control risk, because you can limit losses from the beginning. The disadvantage is that there are daily costs involved. Over long periods of time, they may be substantial.

Investors looking for a long-term bet on natural gas should avoid all instruments mentioned above and preferably invest in the equity of the companies involved in the exploration and production of natural gas. This avoids rollover, interest and other expense costs and offers a leveraged exposure to the market.



Box 1 – Degree Days

A degree day is a day in which temperature exceeds certain defined parameters, either on the low side during the winter or on the high side during summer. The key idea is to define such a parameter as a temperature level corresponding to mild weather. When the observed temperature is measured above said parameter, there is a need to refrigerate and when it is below, there is a need to heat. Depending on the direction of the deviation from the parameter, we may have cooling degree days or heating degree days. The first occurs when the temperature is above the threshold and the second occurs when the temperature is below that same threshold.

Why measure degree days?

As extreme temperatures require cooling and heating, it is expected that energy needs increase with the number of degree days observed. The correlation between the two should be high. Because natural gas is one of the main inputs in electricity generation, the correlation between natural gas prices and the number of degree days should also be high.

In the U.S., the mean daily temperature used as the threshold parameter is 65F (around 18.3C). Each degree observed above 65F counts as one cooling degree day and each degree below 65F counts as one heating degree day. Ideally, the temperature should be measured hourly across the day and an average temperature then taken, but due to technical difficulties, daily temperatures are taken as an average of maximum and minimum observed temperatures:

Temp. X = (Max. Temp. X + Min. Temp. X) / 2

And then the Degree Day is computed as:

Nr. of Degree Days = Temp. X – 65

If Nr. of Degree Days > 0 we count the result as Cooling Degree Days

If Nr. of Degree Days < 0 we count the absolute value of the result as Heating Degree Days

Let's consider an example. On 14 November, the maximum and minimum temperature recorded in London was 5C and 11C, respectively. How many degree days are involved in this record?

First of all, we need to convert the temperatures into the Fahrenheit scale. The new temperatures are then 41F and 51.8F. We can now compute the temperature for the day and the number of degree days involved:

Temp. 14 Nov = (51.8 + 41) / 2 = 46.4

Nr. of Degree Days = 46.4 – 65 = -18.6

As the number of degree days is negative, we count its absolute number as heating degree days. So, for 14 November, we count 18.6 heating days. If we repeat the exercise for all days in the year, we come up with the total number of degree days, which gives a rough idea of the cooling and heating needs.

To keep an investment over more prolonged periods of time, some of the better options would be:

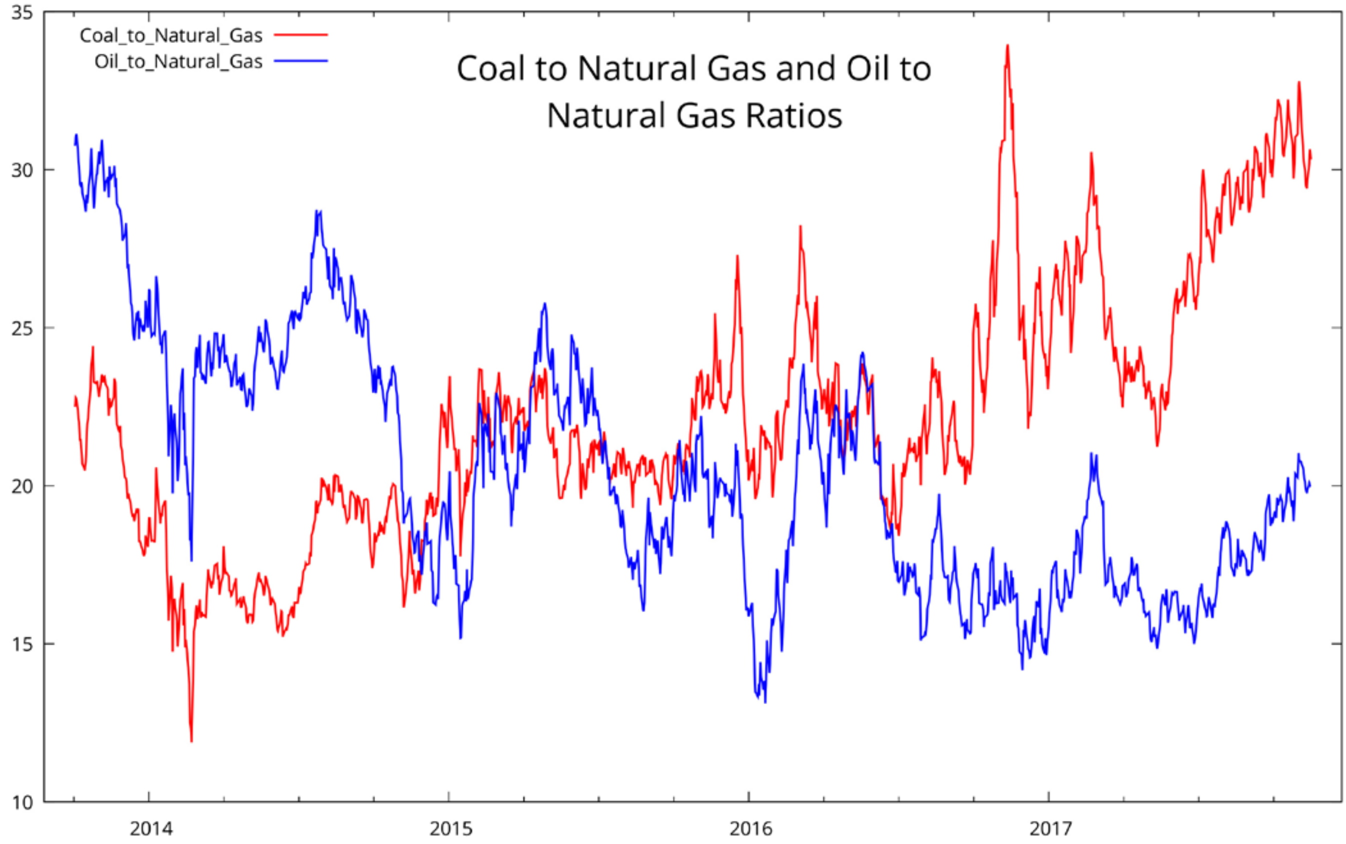
- **FCG – First Trust Natural Gas ETF** – This ETF invests in companies that are directly involved in the exploration of natural gas in the U.S. The correlation between this ETF and natural gas spot prices is relatively high.

- **Handpick shares of companies involved in natural gas exploration** – This is another option but needs to incorporate some precautions regarding risk. Each company is exposed to the market and to its own risks. If the risk that is specific to the company isn't diversified away, investors may end up losing money even when natural gas prices rise.

Don't get caught out

Natural gas consumption has been rising every year for the last five years. In 2016, it reached a record of 75 billion cubic feet per day. But weather has been warmer than usual, as last year saw the lowest number of degree days since 2012. Because of this, natural gas prices have been moving slowly. But the market doesn't seem to be discounting the fact that just because the last few years have been milder than usual, it doesn't mean this year will be the same. Besides, stockpiles are already very low and natural gas prices are lagging behind the prices of other energy commodities. The potential for

"THE MARKET DOESN'T SEEM TO BE DISCOUNTING THE FACT THAT JUST BECAUSE THE LAST FEW YEARS HAVE BEEN MILDER THAN USUAL, IT DOESN'T MEAN THIS YEAR WILL BE THE SAME."



a positive short-term surprise move in prices is high.

As a long-term investment, natural gas also seems a good play. While Trump promises the revival of coal, prices of the dirty energy source are relatively high when compared with the prices of natural gas. The coal-to-natural-gas price ratio rose from 12.5 in February 2014 to 23.1 by the end of 2016, and now stands at a whopping 30.3. This should be a good incentive for power plants to replace coal with natural gas over time and boost the long-term investment thesis in favour of natural gas.

Box 2 – Contango and Backwardation

Contango and backwardation are terms often used in commodities markets to describe the relationship between spot prices and futures prices and the shape of the futures curve. When futures contracts trade at a premium to the spot price, the futures curve shows an upward shape and the market is in contango. When futures contracts trade at a discount to the spot price, the futures curve shows a downward shape and the market is in backwardation.

In general, the market trades in contango because the costs of carry increase with time and interest rates are usually positive. But, when interest rates are negative and seasonality factors are strong, a market may trade in backwardation. In the particular case of natural gas, we often see periods of contango and backwardation due to the seasonality factor.

About Filipe

Filipe has been a contributor to Master Investor since the earliest years. His specialisation is monetary policy, macro issues and behavioural finance where he allies the practical experience of several years of trading with academic credentials. Filipe in fact teaches courses on Financial Markets and Monetary Economics at the University of Oporto Faculty of Economics, helping traders maximise profits and better manage risk.

BY SWEN LORENZ

10 QUESTIONS FOR...

HILARY SZYMUJKO

Visiting a venture capital event in Hong Kong, I had the good fortune of being able to listen to Hilary Szymujko of Brinc.io, the start-up accelerator. Her firm works with early-stage hardware entrepreneurs, providing not just financial backing but hands-on support such as organising trips to meet potential manufacturers in China. Each and every one of her statements on stage was like having a window into the future, which we felt would be useful for our readers' investment decisions. I asked her to share some of her views and insights with us!

Swen Lorenz: You started your career as Chief Operating Officer of a law firm, but in 2012 you moved into the start-up funding sector where you first worked with Seedcamp in London before moving to Hong Kong. What attracted you to working with early-stage ventures?

Hilary Szymujko: *There were a few factors that drew me to work with early-stage technology companies. I come from a family of entrepreneurs – my parents and grandparents all started and ran businesses. From this personal experience, I have a lot of respect for entrepreneurs and empathy for the founder journey. And I know how entrepreneurship can uplift and empower people. Drawing on the skill-set I gained while working at a law firm to support founders seemed like a great way to create value and impact using my own strengths. I was drawn to technology in particular for a few reasons: it will be a huge driver of change in the years ahead. Further, for many, technology with entrepreneurship is meritocratic, giving opportunity where it wasn't present before.*

> **"I TRY TO KEEP A DIVERSE PORTFOLIO TO SPREAD RISK AND MAKE SURE I'M BALANCING ENOUGH MORE CONSERVATIVE TACTICS WITH HIGHER RISK VENTURES."**

SL: China is at the forefront of manufacturing at highly competitive prices, and Hong Kong is one of the world's largest financial markets. How does it feel viewing the rest of the world from this unique vantage point?

HS: *I have such a different world-view now after living in Asia and I'm so grateful for the experience. Half of the world's population is within five hours of Hong Kong, and so much of the world's goods are made in this region. It certainly has shifted my sense of the centre of gravity when it comes to macroeconomics and trade dynamics. There is so much growth and opportunity in Asia.*

SL: You mentioned your particular interest in bringing high-tech hardware into agriculture in developing countries, citing the sheer number

"I KNOW HOW ENTREPRENEURSHIP CAN UPLIFT AND EMPOWER PEOPLE."

"I THINK INTERSECTIONS BETWEEN THESE TECHNOLOGIES WILL BE WHERE WE SEE SOME OF THE MOST INTERESTING INNOVATIONS IN THE YEARS AHEAD."

of people that need to be fed, inefficiencies in land use, and the need to solve environmental issues such as 50% of consumer products containing palm oil which is often produced under very harmful conditions. Can you tell us one or two exciting trends and technologies you see emerging in this area?

HS: *Drone technology is a big trend in agriculture, particularly as the technology becomes more accessible. We're seeing really interesting software and add-on technology being created by start-ups that can help farmers better monitor their crops and increase yield.*

A second trend that I'm watching is entrepreneurs working to bring resources, technology and services previously only utilised by large, more industrialised farms to small and medium sized farmers. This includes SaaS (Software as a Service) platforms and sensor technology that brings more sophisticated monitoring, knowledge and advice to SME farmers.

Kletr / Shutterstock.com

SL: With your knowledge about the potential improvements, do you have an overall positive world-view when it comes to issues such as overpopulation and the environment? Is tech going to save the planet?

HS: *This is a big question! I am an optimist, and do have a positive world-view. Technology is absolutely part of the solution to the big challenges we face today including protecting biodiversity, feeding the planet, climate change and so on. I don't think these solutions are necessarily complex – in fact many are simple – but technology will certainly be a big aspect. It's really encouraging to see alternative energy products like solar being readily available and adopted, for example. Or the IoT (Internet of Things) helping reduce waste like built-in obsolescence in washing machines and other appliances.*

SL: Another area you indicated a particular interest in is health, also in the context of an increasing number of stakeholders in this sector now being interested in (or open to) using technology. Again, which impactful, far-reaching emerging trends and technologies do you have on your radar screen?

HS: *We see a lot of health tech companies in the hardware space. One trend I'm really interested in is wearable technology that is not in the form of a wristband, but instead woven into textiles or other form factors. Graphene, for example, is a technology now being put to work in this form. One of our companies, BonBouton, uses graphene technology built into shoe insoles to help diabetics detect and treat ulcers before they escalate to more serious health issues like amputation and even death. This is just one example of how graphene can be used in a discrete, non-intrusive way to help people be proactive about their health.*

SL: Are there any other areas in hardware and technology that excite you, and which you feel have the potential to bring rich rewards to far-sighted investors?

HS: *It's a really interesting time to be in this space. We're seeing a lot of new developments across a diverse set of technologies: blockchain, clean energy, artificial intelligence and machine learning, sensors and so on. We're starting to see these technologies converge and I think intersections between these technologies will be where we see some of the most interesting innovations in the years ahead.*

SL: If we may ask, how are you personally investing? Stocks, ear-

ly-stage companies, property, bonds, cryptocurrencies, pension funds – anything else?

HS: *I try to keep a diverse portfolio to spread risk and make sure I'm balancing enough more conservative tactics with higher risk ventures. I also try to learn as much as I can about emerging asset classes. Putting a little cash in cryptocurrencies is a great way to learn and stay close to these growing areas.*

SL: As someone who writes cheques to entrepreneurs, what are your three key pieces of advice to anyone who is seeking to raise money for their own venture?

HS: *First off, getting the mentality around fundraising right is important. Fundraising is a lot like dating – many entrepreneurs pitch 100 investors just to get one committed investor. Getting the right mind set for this is important so you don't get discouraged or take a deal that isn't in line with your business goals just because 10 other investors said no.*

Second, try to get some traction before talking to investors. Early traction can be a few paid customers, sign-ups or even customer interviews. This process of course helps validate that you are building something people want and thus reducing some of the risk of the venture from an investor's perspective. And, importantly, knowing what your customers need and care about will help you develop a roadmap that has your customers at the core.

A third piece of advice is to start talking to potential investors early – before you are even openly fundraising. Early-stage investing is about people, and starting a relationship with investors early with help build trust, interest and support. It also takes the pressure off from investor conversations if you start talking before you are in a difficult cash position.

SL: Even in today's fairly globalised world, Hong Kong and Asia still feel far away from a European perspective, and my own trip reminded me how easy it is to overlook some of the exciting developments that are happening in this region. Why should both investors and the younger generation in general pay particular attention to Asia?

HS: *So many reasons! But perhaps the most universal is that there is a lot one can learn from the dynamics and developments by entrepreneurs and technologists in this part of the world that can be applied or adapted to the European and other markets. One often cited example is WeChat and how it is now influencing Facebook and other non-Asian platforms.*

SL: Last but not least, for anyone visiting Hong Kong, which places would you say are must-visits on the itinerary? Feel free to include places in nearby regions of China!

HS: *This is a long list. For anyone interested in technology, taking a trip to Shenzhen to see the Huaqiangbei electronics market and a visit to one of the big trade show fairs like HKTDC, the Canton Fair or Global Sources are a must. Visiting places and events like these will help give insight and appreciation into the scale and speed at which Asia moves. For food and culture, wandering the streets, wet markets and eating local street food is so much fun. There's also a lot of natural beauty in the region. I highly recommend hiking in the hills of Lantau or Hong Kong Island.*

SL: Many thanks!

About Swen

Swen is CEO of Master Investor Ltd. and regularly serves as an advisor and board member to public and private companies. His work has been featured in publications like the Financial Times, Private Eye, and the Economist. He welcomes readers connecting with him on LinkedIn.

BY JOHN KINGHAM

DIVIDEND HUNTER

IS BUFFETT RIGHT TO CHOOSE COCA COLA OVER MICROSOFT?

As a UK investor I am mostly interested in UK stocks. However, Master Investor's focus last month on the US prompted me to look across the pond. Specifically, I wanted to see how some of the biggest and safest dividend payers in the US stacked up as long-term dividend investments. To be honest, I wasn't optimistic. The US is not exactly known as a bastion of high yield stocks and US markets have been expensive for years. But on the flip side, the US is home to some of the most successful dividend-payers on the planet, where lofty prices may be justified.

Of course, the US is also home to Warren Buffett, who has been investing in high quality dividend-paying companies for decades. So with Buffett in mind, I thought I'd look at two very high profile, high quality companies he's often spoken about, but only one of which he's invested in.

Coca Cola: One of Buffett's favourite investments

Warren Buffett invested in the **Coca Cola Company (NYSE:KO)** in 1988 and 1989, at a time when the company's exceptional growth prospects were largely ignored by the market. His premise was essentially that the company's long track record of growth, which had seen it more than double revenues, earnings and dividends in the previous decade, could be sustained for many more decades to come. At the same time, the stock had a dividend yield of 3%, which suggested that its high future growth potential was not reflected in the price.

> **"IF THIS SLOWING GROWTH TREND CONTINUES, THEN COCA COLA SHOULD NOT COMMAND A PREMIUM VALUATION."**

With hindsight, Buffett was largely right. Since his original purchase in 1988, Coca Cola has proven itself to be one of a select few global corporations which seem able to grow almost without end.

Notice though, that I said Buffett was *largely* right and that Coca Cola seems able to grow *almost* without end. That's because the company could – after more than a century – be about to lose its position as a high growth dividend champion.

"AS A US COMPANY, COCA COLA ISN'T ON MY STOCK SCREEN OF DIVIDEND-PAYING UK COMPANIES, BUT IF IT WAS THEN AT ITS CURRENT PRICE OF $47 IT WOULD COME 159TH OUT OF 220 COMPANIES."

focal point / Shutterstock.com

Infinite growth on a finite planet?

The famous quote about the impossibility of infinite growth on a finite planet is 100% correct. Trees don't grow to the sky and no company can grow significantly faster than the rest of the economy forever. This inevitable slowdown shows up in Coca Cola's financial results over the past 30 years.

Between 1979 and 1988, the decade preceding Buffett's purchase, Coca Cola's revenues grew by 113%, going from $3.9 billion to $8.3 billion. Over the following decade to 1998, those revenues grew by an even more impressive 127%. By that point, Buffett's 1988 analysis was basically right; the company had maintained its high growth rate for another decade and still seemed capable of generating rapid growth in the future.

Buffett's investment also generated massive capital gains. While the company doubled its revenues between 1988 and 1998, the share price increased ten-fold. Perhaps investors had aligned themselves with Buffett, in the belief that Coca Cola's growth was inevitable and that such a fantastic company should command a very high price.

I have no doubt that Coca Cola was and is a high-quality company, but by 1998 investors had become seriously carried away by how much it could grow and how much it was worth. In the middle of 1998, Coca Cola had a dividend yield of less than 1%. This means an investor looking for 10% annual returns must have believed that the company could grow at about 9% per year or more, decade after decade. That may have been possible in the past, but for the unfortunate Coca Cola investor of 1998, it has not happened since.

Instead, by 2008 the company's revenues (from which dividends are ultimately paid) had grown by a more modest 70%. That's still a fairly decent 5.4% annual growth rate, but 9% per year it is not. This less exceptional growth rate was probably one of the reasons why the premium valuation assigned to Coca Cola in 1998 gradually declined over the following decade. By the time 2008 rolled around, the shares had fallen by more than 30% compared to where they were ten years before, despite the company growing by 70% during that period.

The decade from 2008 until today has seen that trend of slowing growth continue. In fact, 2016 revenues of $42 billion were actually 7% lower than in 2008. Even if we optimistically assume that 2018 revenues can revisit their

Fotosr52 / Shutterstock.com

2012 peak of $48 billion, total revenue growth from 2008 to 2018 will be just 50%. Again, this is not a bad growth rate; it's 4.2% per year. But it is not exceptional in the slightest.

Is Coca Cola's premium valuation deserved?

If this slowing growth trend continues, then Coca Cola should not command a premium valuation. With its dividend yield currently close to 3% and assuming growth over the next decade at 4% per year, Coca Cola has a yield plus growth total return estimate of just 7%. Personally, I won't invest in a company unless the estimated return is north of 10%.

This doesn't mean I'm bearish on Coca Cola as a company. I do think it will keep growing for many more decades. It is almost inevitable that more people around the world will become richer and more inclined to pay up for fizzy drinks rather than drinking water for free.

But there is another story, which is that tastes are changing. People want healthier drinks with less sugar. They want drinks that give them minerals or vitamins or some other health enhancing ingredient that Coke does not contain. They want new and exciting brands too. These are all things that the Coca Cola company can do, and is doing. But the company's competitive advantage is tied up with the Coke brand, so as it moves into other areas with other brands, that competitive advantage goes away. All it's left with then is economies of scale as the world's largest beverage company, and that's a pretty weak advantage.

Given the impossibility of infinite growth and changing consumer tastes, I think Coca Cola will probably continue to grow, but at a slower rate with lower returns on capital employed (which have already declined from over 20% a decade ago to barely 10% today). I would still invest in the company, but only at a price which reflected that low-growth outlook.

As a US company, Coca Cola isn't on my stock screen of dividend-paying UK companies, but if it was then at its current price of $47 it would come 159th out of 220 companies. Needless to say, that is not very good.

To get into the top 50, which is what I'd call "good value", the share price would need to fall below $25. That's about 45% less than its current price. At $25 the dividend yield would increase to 5.7%, which would nicely offset my mediocre 4% growth expectations. Obviously, Coca Cola shares aren't going to decline by 45% for no reason. It will probably take a major US bear market to push them down that far, and that could be years away. But that's okay, because in the investment game patience really is a virtue.

Microsoft: Outside Buffett's circle of competence

Unlike Coca Cola, Buffett has never invested in **Microsoft (NASDAQ:MSFT)**. Originally this was because he had little understanding of the computer industry, but in more recent years it has been due to the close relationship between him and Microsoft's co-founder, Bill Gates.

Also unlike Coca Cola, Microsoft does not have a century or more of impressive growth behind it. Instead, it has is a few decades of incredible growth and almost unparalleled industry dominance.

It all began in 1975, when Bill Gates and Paul Allen decided to write a BASIC programming language interpreter for the Altair 8080. From zero in 1975, the company's revenues grew to a whopping $381,000 in 1977, generated by a total of nine employees. By 1987 the company had become a major listed US corporation, with revenues in that year of $346 million. That's a near-thousandfold increase in a decade and an annualised growth rate of 98% (yes, 98% *per year*).

Obviously, that completely crushes Coca Cola's growth over the same period. Microsoft was tiny and tiny companies can grow astonishingly fast, but roll forward through each subsequent ten-year period and we see the same inevitable decline in growth that we see with Coca Cola.

A story of exponential decay

Between 1987 and 1997, Microsoft's revenues grew more than 3,000% to $11.36 billion, giving an annualised growth rate of 42%. While 42% per year is still incredible, it's a long way short of the previous decade's 98% growth rate. Roll forward another ten years and by 2007 revenues had climbed to $51.1 billion, giving total growth in that period of 350% and annualised growth of 16%. Yes, a 16% growth rate is still impressive, but it's no longer incredible. And what about the most recent ten years? It's the same story. From 2007 to 2017, revenues grew by a total of 76% to just shy of $90 billion. That's an annualised growth rate of 6%, which is no longer even that impressive.

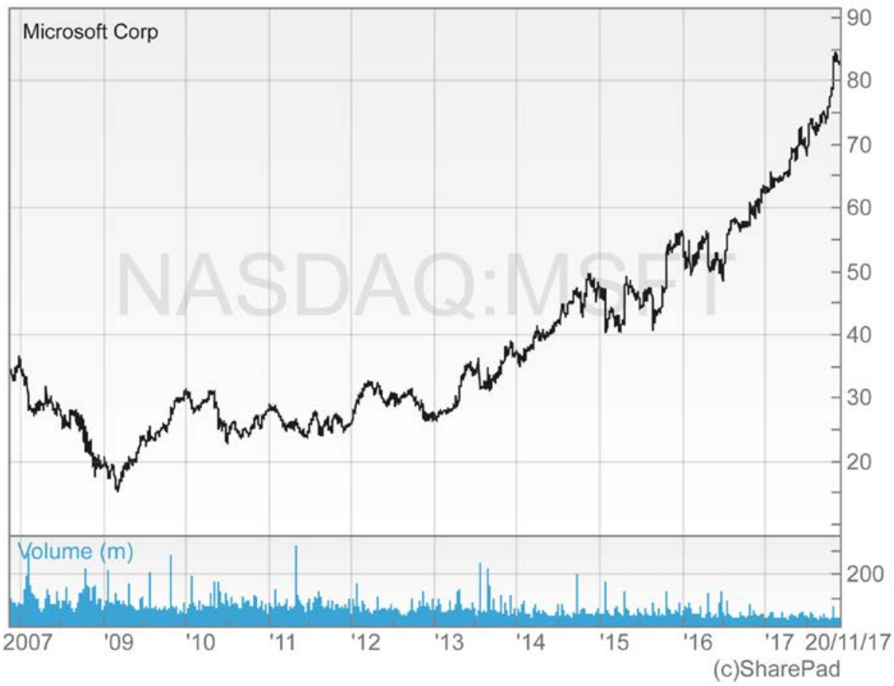
So Microsoft has gone from an insane growth rate of 98% during the '80s, to an incredible growth rate of 42% during the '90s. It followed that up with an impressive growth rate of 16% during the 2000s and then produced a pretty average growth rate of 6% during the 2010s.

This is an almost perfect example of exponential decay. In other words, Microsoft's growth rate has declined by a fairly constant percentage (about 60%) in each successive ten-year period. This won't continue indefinitely, or at least Microsoft shareholders should hope it doesn't, otherwise its growth will rapidly approach zero. More realistically, Microsoft's growth rate will approach the market average, or perhaps slightly less, and we may be very close to that point.

As with Coca Cola, this doesn't mean I'm bearish about Microsoft. I think it's in an amazingly strong position and still totally dominates the world of PC operating systems. It very probably will have a long and successful future, but I don't think it's a future that will be characterised by high growth.

On the negative side, PCs are in terminal decline and, like Coca Cola, Microsoft is having to move into other areas. These include cloud computing and gaming consoles, to name but two. However, Microsoft has less of a competitive advantage in those arenas and will therefore find it harder to earn outsized returns on capital employed (ROCE has already declined from an excellent 29% in 2007 to a more pedestrian 12% in 2017). But as I said, I am not bearish about Microsoft and I would probably invest in the company at the right price.

So what is the right price? It certainly isn't $84, which is where the shares sit today. At that price, Microsoft has a dividend yield of just 1.9%, which I'm sure you'll realise is not particularly attractive to a dividend-focused investor. However, I am willing to invest in low-



"PCs ARE IN TERMINAL DECLINE AND, LIKE COCA COLA, MICROSOFT IS HAVING TO MOVE INTO OTHER AREAS."

Ken Wolter / Shutterstock.com

“I’M NOT GOING TO BEAT THE MARKET BY INVESTING IN AVERAGE STOCKS, SO THE PRICE NEEDS TO BE MUCH LOWER BEFORE I WOULD CONSIDER INVESTING IN MICROSOFT.”

yield companies if I think they might offset that low yield with high dividend growth.

In this case, Microsoft has grown its dividend by about 13% per year over the past decade, which far outpaces its 6% revenue growth rate. There are two reasons for this: First, Microsoft has been buying back shares, reducing their number by about 2% per year, which pushes up per share revenues, earnings and dividends by about 2% per year (so per share revenues have grown by about 8% per year). Second, the ratio between dividends and revenues has increased from about 8% in 2007 to 14% today.

This is good in some sense because the company has been able to increase cash returns to shareholders at an impressive rate, even though its top line growth has been muted. But this can only go on for so long. At some point the ratio between dividends and revenues will reach a maximum, after which dividend growth will fall in line with revenue growth.

Microsoft's low yield requires optimism

Let's optimistically assume that Microsoft can grow its per share revenues, earnings and dividends at 8% per year over the next decade, which is equal to its current per share revenue growth rate. With a yield of 1.9% and estimated dividend growth of 8%, that's a yield-plus-growth return of 9.9%. That isn't bad, but it isn't far off the expected return of the whole market.

dennizn / Shutterstock.com

That's reflected in Microsoft's position on my stock screen (once I add it in). At its current price of $84 per share, Microsoft ranks at number 108 out of 220 companies, i.e. pretty much in the middle of the pack. I'm not going to beat the market by investing in average stocks, so the price needs to be much lower before I would consider investing in Microsoft.

To break into the top 50 stocks on the screen and enter the "good value" zone, Microsoft's share price would have to fall below $60. That's a decline of almost 30% from today's $84 price tag, which seems like a long way. But it's where the shares were just a year ago, so I see no reason why they couldn't revisit that price level, given a little bit of bad news.

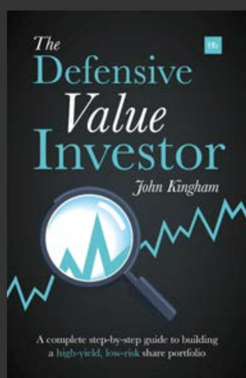
In summary then, my opinion on both these companies is the same. I think they're great companies with impressive track records of growth, but I also think they're unlikely to grow so quickly in the future. At their current prices I don't think either is particularly attractive, although that applies more to Coca Cola than Microsoft.

About John

John Kingham is the managing editor of UK Value Investor, the investment newsletter for defensive value investors which he began publishing in 2011. With a professional background in insurance software analysis, John's approach to high yield, low risk investing is based on the Benjamin Graham tradition of being systematic and fact-based, rather than speculative.

John is also the author of *The Defensive Value Investor: A Complete Step-By-Step Guide to Building a High Yield, Low Risk Share Portfolio*.

His website can be found at: www.ukvalueinvestor.com.



BY RICHARD GILL, CFA

FROM ACORNS TO OAK TREES

3 HISTORIC SMALL CAPS

ARE THE OLD ONES THE BEST?

***"The old ones are the best"*, so the saying goes. But can this adage be applied to listed companies? Unfortunately, in doing research for this article I didn't come across any academic studies that correlate a company's age with superior stock price performance. But what is clear is that businesses with a long history are obviously doing something right to still be around today.**

According to a recent study by Credit Suisse the average life of an S&P 500 company in 2012 was just 20 years, down from 60 years in the 1950s, as the disruptive force of technology kills off older operators. So those businesses which were formed many years ago but are still thriving in the 21st century should offer investors an attractive proposition, showing evidence they are able to adapt to whatever the business world throws at them.

Here follows three London listed small caps, some of which can trace their roots back over 300 years, which I believe are good additions to a portfolio.

SHEPHERD NEAME

The first real evidence of humans making beer goes back 7,000 years to what is now Iran, with recent chemical analysis of ancient pottery jars from the area suggesting its production. So it's no surprise that some of the oldest businesses in the world that are still running are related to booze. Sean's Bar in Athlone, Ireland, for example claims to have a history going back to 900CE, with the Bingley Arms, near where I grew up in West Yorkshire, tracing its origins to 953CE.

Not quite as old as those boozers but with a long history nonetheless is NEX Exchange listed brewer and pub owner **Shepherd Neame (LON:SHEP)**. Claiming to be Britain's oldest brewer, the company has its foundations in the 1698 purchase of an abbey brewhouse in Faver-

sham, Kent, by local mayor Richard Marsh. Samuel Shepherd took over the brewery in 1732, passing the business down through the generations, and when Percy Neame joined the firm as a partner in 1864 Shepherd Neame & Company was born. This is still very much a family business, run by CEO Jonathan Neame, with family, directors and employees owning over half of the company.

As of today the business runs 327 pubs, mainly in Kent and the south of England, with 66 being managed outright and most of the remainder being tenanted or leased. The estate ranges from traditional boozers (including my favourite in the City, the Jamaica Wine House), gastropubs and hotels. The brewing business is still going strong, with the company selling the equivalent of 74.5 million pints in the last financial year and exporting its produce to more than 35 countries. Some of the firm's most popular drinks include the ales Spitfire, Whitstable Bay and Bishops Finger, along with Japanese beer Asahi Super Dry and US craft lager Samuel Adams Boston Lager which are both produced under exclusive licences.

Toasting success

Shepherd Neame is very much a strong and stable business, showing steady growth in underlying profits and dividends over the past few years. The core strategy is focussed on growing sales from the current portfolio of pubs and modernising the estate, supported by selective acquisitions and disposals. In the brewery operations a recent move has been made to focus on the company's own brands, with the licence to brew and sell Asahi Super Dry terminating at the end of February next year.

In the 52 weeks to 24th June 2017 revenues rose by 11.7% to £156.2 million, with underlying pre-tax profits (excluding profits on disposals and property valuations) up by 8% at £15.3 million. Underlying earnings were also up by 8% and the total dividend for the year was increased by 3.1% to 28.3p per share – dividend pay outs are targeted at around 50% of underlying earnings.

Operating highlights of the period included managed pubs like-for-like sales growth of 8.1%, and own beer volume growth of 3.9%, both substantially ahead of the wider market. During the

"THE COMPANY HAS BEEN A CONSISTENT DIVIDEND PAYER OVER THE YEARS."

year 14 pubs were acquired, with £5.9 million raised from the disposal of 15 pubs. Following the period end, the company has had to put up with colder and more unsettled weather, but in the ten weeks to 2nd September like-for-like managed sales were up by 1.5% and total beer volume excluding contracts was up 4.4%.

Worth a tipple?

On the NEX Exchange shares in Shepherd Neame currently trade at 1,270p per share to buy, valuing the company at £188.7 million. That represents a discount of 1.25% to net assets as at 24th June this year, providing significant backing and downside protection to the current valuation. The shares also trade on a multiple of 21.5 times underlying earnings for the last financial year, which looks justified given the strength of the business. The company has been a consistent dividend payer over the years and on last year's figures the yield is a modest 2.23%. As an additional bonus, holders of at least 100 shares are entitled to a shareholder privilege card giving them discounts on food and accommodation.

While Shepherd Neame shares are unlikely to soar in value in the near future, investors should be confident of steady capital growth in line with earnings, along with a small but dependable income stream.

MOSS BROS

Like beer, clothing has been a critical product in human history. According to a study published in the Molecular Biology and Evolution Journal humans began to wear clothing as early as 170,000 years ago, with scientists calculating the date following analysis of when clothing lice began to genetically diverge from head lice. Moving on from early animal skins, the modern mens' suit is thought to have become popular in the early 19th century, popularised by George "Beau" Brummell, a Regency period dandy and friend of King George IV.

FTSE Small Cap listed suit seller **Moss Bros (LON:MOSB)** can trace its origins back to 1851 when founder Moses Moss opened two small shops in Covent Garden in London selling second hand clothes. The business has had its troubles, making a loss of £9 million in 2009, but has since seen its fortunes turned around under the guidance of CEO Brian Brick.

The business today operates 129 stores around the UK, along with an e-commerce site, retailing and hiring mens' formal wear and fashion products. The company retails own brand and third party brand menswear through the Moss Bros fascia, and hires formal wear under the Moss Bros Hire brand through its mainstream stores. The group also trades through the premium Savoy Taylors Guild fascia in a small number of stores, along with the sub-brands Moss London, Moss 1851 and Moss Esquire. A personalisation services, 'Tailor Me' launched during 2016 and is now available nationwide, offering customers a custom made suit, ready for collection within 30 days of placing an order.

“ONE OF THE MAIN ATTRACTIONS OF MOSS BROS IS ITS HIGH DIVIDENDS.”

Looking Sharp

Growth under Brian Brick continued in the six months to 29th July 2017, with revenues up by 4.3% at £66.6 million and pre-tax profits up by 15.7% at £4.2 million. Group like-for-like sales grew by 2.8% in the period, with e-commerce sales performing strongly, growing by 14.5% and now representing 11.2% of total sales. In addition, mobile device traffic contributed 47%, of online sales. In line with the company's progressive dividend policy, the interim payment was increased by 6.3% to 2.03p per share.

Across the divisions, like-for-like retail sales rose by 5.1% but the smaller Moss Bros Hire business saw a decrease of 8.4% on reduced volumes, with recovery to a 'normalised' level expected at the end of the 2017 wedding season in September. A refit programme to modernise the store portfolio is ongoing, with 103 new and refitted stores now trading in the new format. An additional four new stores were opened in the period, with two relocated and two closed, and with two pilot stores in the Middle East showing "reasonable" growth on the year.

On the outlook for the full year, Moss Bros said that trading continues in line with expectations, with retail like-for-like sales including VAT up by 3.5% in the first eight weeks of the year, offsetting a 4.7% fall in "cash taken" like-for-like sales in the Hire business.

Suits you, Sir?

Since the dark days of 2009, when the shares were trading close to 8p, Moss

Bros has seen a significant recovery. While they are down from recent highs of 120p, the shares currently trade at 86.375p, capitalising the company at £87.1 million.

One of the main attractions of Moss Bros is its high dividends. On last year's payment of 5.98p the shares currently yield a chunky 6.9%. While dividend cover was less than 1 times earnings for the year the payment does look sustainable given that net cash stood at £21.5 million at the half year end, there are no borrowings and that operating cash flow is very strong. In the first half net cash from operations was £16 million compared to reported net profits of £5.5 million. While capex amounted to £8.1 million this still left free cash of £7.85 million available for distribution to shareholders.

The current year earnings multiple for the company is 16 times, given market consensus forecasts for earnings of around 5.4p per share. That falls to a more reasonable 12 times on an ex-cash basis.

Overall, Moss Bros looks like a reasonably steady and well run business, with significant attractions for income investors.

600 Group

One of only a few numerically named companies listed in London, **600 Group (LON:SIXH)** is a distributor, designer and manufacturer of industrial products. Its name comes from the early head office address at 600 Commercial Road in East London, with the business forming its first machine tool company in 1932. It grew over the years into one of the UK's leading metal recovery and engineering businesses and became a public company in 1947.

> **"INDUSTRIAL LASER SYSTEMS WAS THE STAR PERFORMER, GROWING SALES BY 17% TO £7.88 MILLION."**

The business today operates through two divisions which focus on three areas. In Machine Tools & Precision Engineered Components there are five businesses with operations in the UK, US and Australia. Brand names Colchester, Harrison and Clausing design and develop metal processing machine tools. Products range from small conventional machines for education markets, CNC (computerised numerical control) workshop machines and CNC production machines. In addition, the Pratt Burnerd and Gamet brands design and manufacture precision engineering components, with machine spares distributed to customers to help maintain the installed base of group machines which number in excess of 100,000.

Secondly, the **Industrial Laser Systems** business operates worldwide under the TYKMA Electrox brand. Industrial laser systems are a technologically superior alternative to ink jet marking, requiring no consumables and operating on a continuous high speed basis when integrated into customers' production lines. The business has its own technology and proprietary software, with customer applications ranging from telecommunications to pharmaceuticals.

Solid figures

Numbers just released for the six months to September 2017 were positive, showing revenues up by 7% at £24.8 million and pre-tax profits on an underlying basis up by 11% at £0.83 million. Industrial Laser systems was the star performer, growing sales by 17% to £7.88 million and operating profits by 25% to £1.11 million. This offset a more modest performance in Machine Tools and Precision Engineered Components where operating profits slipped by 18% to £0.76 million despite revenues rising by 3% to £16.96 million.

One of the most striking things about 600 Group is its balance sheet, where (in contrast to most other UK companies with pension obligations) it boasts a large pension surplus. The accounting surplus stood at £45.7 million at the period end, with there being no requirement for any cash funding from the company. On the more prudent technical provisions used for valuation in the latest triennial valuation (as at 31st March 2016) the surplus was a more modest £2.2 million. Nevertheless, various options for the scheme are being investigated, with a cash refund possible on an insurance buy out.

On the outlook, market conditions were said to have improved generally over the previous year, evidenced by the overall group order book being 36% higher at the period end. With the second half being complemented by new product launches and an increasing focus on sales activity in other geographical areas, the company is confident for the full year.

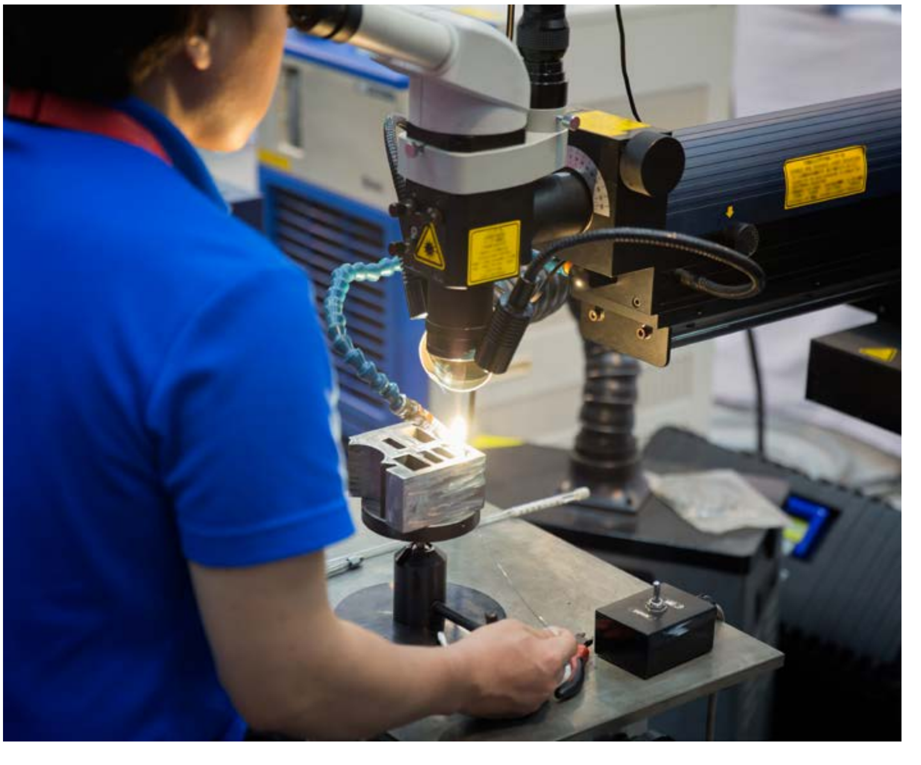
"SIMON CAWKWELL (AKA EVIL KNIEVIL) IS A FAN OF THE STOCK."

Are the shares a steel?

Since bottoming out at 7.375p last April, shares in 600 Group have had a good run, almost doubling to the current 14.5p. That capitalises the business at just £16.4 million. Analysts at research house Hardman are looking for earnings of 2.1p for the current financial year, which puts the shares on a very cheap looking multiple of just 6.9 times. I believe a multiple of at least 10 times would be much more appropriate here, in line with the wider sector, implying potential upside of 45%.

There is no regular dividend here, with the company having the view that the retention of earnings to grow the businesses is the most appropriate use of its surplus funds. No payment has in fact been made since 2004 but should there be a cash refund paid due to the pension fund surplus I see the potential for a modest special dividend.

The most glaring valuation anomaly here is that net assets as at 30th September this year were just under £47 million. That figure (which includes the pension surplus) amounts to 41.5p per share. Partly because of that, Simon Cawkwell (aka Evil Knievil) is a fan of the stock, recently commentating on the Master Investor blog, *"This share price is far too low. 25p would be more in point."* **I see that as being achievable in the medium term, with the strong asset backing providing downside protection.**



About Richard

Richard Gill is an investment analyst with over a decade's experience of analysing small/mid cap equities. He is the Head of Research at Align Research. Richard qualified with the Chartered Financial Analyst (CFA) designation in 2012 and was awarded PLUS Markets Financial Writer of the Year at the 2008 PLUS Awards. He has been a judge at the Small Cap Awards from 2013 to 2017.

BY SAMUEL RAE

FORENSIC FOREX

EXPECTING MORE DOLLAR STRENGTH

We are closing in on the end of the year and 2017 has been a pretty wild ride in the currency markets across the board. Political, military and economic inputs have, in a variety of ways, influenced sentiment across the full spectrum of majors and this has translated to a large amount of volatility in the markets.

Regular readers of my analysis here at Master Investor will know that I primarily adopt technical methods to dictate my entries and exits in the currency markets. However, at the same time, I also like to put together a fundamental bias as dictated by what's happening in various major regions of the global economy and use this bias to inform my risk management decisions.

To put this another way, if I see an entry signal that falls in line with my fundamental bias, I will be a little bit more aggressive in my targeting and be willing to take on a little bit more risk than I would be if the same signal showed up against my fundamental expectations.

With this in mind, here are two trades I'm looking at in a couple of the major pairs, with a description of why I'm watching the pairs in question and how I formed the bias that underpins my risk in each.

Trade No. 1: EURUSD Short

This one has been pretty good to me so far this year and I have managed to nail down some solid profits on a couple of longer-term entries that – as outlined above – were signalled by a technical (primarily candlestick) pattern but that were substantiated by falling in line with my fundamental expectations for both the euro and the dollar.

Before I get into the details, take a quick look at the chart below. It is a EURUSD chart with daily timeframe candlesticks that shows somewhere in the region of ten months' worth of price action.

As the chart shows, the euro enjoyed a strong period of appreciation during the second and third quarters of the year, peaking just shy of 1.21 during early September. Since this


WASHINGTON

“THE EUROZONE IS IN A BIT OF TROUBLE RIGHT NOW WITH WHAT’S HAPPENING IN CATALONIA AND ALSO IN GERMANY. COMBINE THIS WITH THE OVERHANG ON BREXIT AND I THINK THERE'S SOME REAL ROOM FOR THE DOLLAR TO APPRECIATE AGAINST THE EURO.”

peak, we've seen a degree of consolidation and price has trended steadily downward to current levels in and around 1.18.

My trade on this one is a longer term position (meaning I expect to hold it for anywhere between 1-6 months) and it's supported by a fundamental bias in favour of the dollar versus its European counterpart. The Eurozone is in a bit of trouble right now with what's happening in Catalonia and also in Germany. Combine this with the overhang on Brexit and I think there's some real room for the dollar to appreciate against the euro.

My signal will come from action in and around the 1.15 level – the most recent swing low from the start of November. If we get a break below this level (and a subsequent failed retest) I'll be in short towards a downside target of 1.10.

A stop loss on the position somewhere in the region of 1.186 (the most recent swing high) serves to limit my potential downside on the entry while still giving me plenty of wriggle room if things start to go against me.

Trade No. 2: GBPUSD Short

Moving on, take a look at the second chart below. This one is another daily timeframe chart but this time with action in the GBPUSD illustrated.

As this one shows, I'm also looking at a trade in favour of some dollar strength versus sterling and, again, I'm expecting to hold the trade for quite a while as it moves through to completion, be that by way of a take profit hit or a stop loss take out.

This time around, I'm looking at 1.334 as an entry level, with my signal rooted in a successful test of that level as resistance on the daily chart.

If we see a test, followed by a close (on this time frame) below the level in question, I'll jump into the markets on a short trade towards a downside target of 1.278. This one's a little less aggressive than the previous trade in the sense that I'm targeting a downside target of a level that was hit relatively recently (late August) but there's still plenty of room on the entry for a nice wide stop loss. My stop loss is placed (as illustrated and in the event that I get the entry signal that I'm on the lookout for) at 1.365, meaning there's little chance I'll get stopped out if things turn against me temporarily.

Now we wait and see whether action plays out favourably for me and I'm able to get into one or both of these trades going forward.

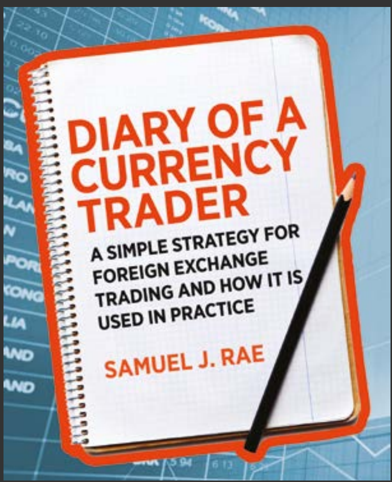
Happy trading!

About Samuel

Having completed his Economics BSc Degree in Manchester, Samuel Rae quickly discovered that the retail Forex industry was for him. A short foray into the corporate world drove him to search for an alternative to the more traditional ways of making a living, and in becoming a retail trader he has achieved exactly that.

Through persistent market participation and extensive education he has grown to become a specialist in both fundamental and technical analysis.

His personal trading style combines classic candlestick analysis with a simple, logical and risk management driven approach to the financial markets – a strategy that is described and demonstrated in his *Diary of a Currency Trader*.



BY DAVID JONES

CHART NAVIGATOR

HOW TO KNOW WHEN TO SELL

The novice investor or trader often obsesses about where to get into a trade or investment and may spend much time trying to refine this process. Indeed there is a whole industry around the perfect entry signal; buy now or miss out on massive gains, XYZ share cannot go any lower...

Of course, we all want to get in at the "right" price (whatever that actually means), but what delivers us the final profit or loss is where we get out – where we sell the investment and realise the gains in cold, hard cash. Now, this is hardly rocket science of course, but still in my experience much less time is spent on examining signs that it is time to head for the exits. So I thought it would be a good topic for this month's issue – what are the signs from the charts that the best of the move we are in may well have happened and it is time to at least start about thinking taking some money off the table and banking those paper profits? As with many other things to do with charting and technical analysis, I am always keen on keeping this simple, so here are some possible approaches.

Break of a trend line

I have previously covered the good chartists' mantra "the trend is your friend". Too many of us have a problem buying into a rising market – and conversely flock to markets that are falling like a stone and assuming we are blessed with the gift of second sight and able to pick the absolute turning point. But if we are fortunate and sensible enough to buy into a good uptrend and ride that move higher, we should be tuned in to possible signs the trend is flagging and get ready to exit. One of the easiest ways of doing this is looking for the trendline to break. In an uptrend, the trend line sits underneath the lows, providing a sort of rising support level. Any dips back to the trend line should bring the buyers back out. As ever a picture paints a thousand words, so let's take a look at one.

> **“A MOVE THROUGH A TREND LINE CAN BE ONE OF THE FIRST SIGNS THAT SENTIMENT TOWARDS A MARKET IS ON THE TURN.”**

Here's as good an example as any (see page 60) – I don't believe in picking absolute text-book examples because the real world of markets seldom works like that!

This was a great trend in oil giant **Shell (LON:RDSB)** that started in January 2016. The trend line is clear to see and there were two to three tests of this, where the price fell back towards it and recovered as expected. These would typically be viewed as buying opportunities. But

"WE SHOULD BE TUNED IN TO POSSIBLE SIGNS THE TREND IS FLAGGING AND GET READY TO EXIT."

look what happens in February 2017 – after setting fresh highs for this trend just shy of 2,400p, the price falls back to that trend line. Initially it does bounce – but then turns back down and slips below the trend. This is the classic "break of the trend line" that could suggest the trend you are following is starting to falter and you may want to consider taking any profits.

This approach could be refined – for example you may want to wait for a weekly close below the trend line, or for the line to be penetrated by a certain percentage so you are not just shaken out on a short term "blip" in the price. Either way, a move through a trend line can be one of the first signs that sentiment towards a market is on the turn.

Break through major low

The **GlaxoSmithKline (LON:GSK)** chart is a good example of combining two approaches when deciding to exit. Previous major lows on a price chart are referred to as support – it's a zone the price has sold off towards, sentiment has changed, and the buyers have come back in. The text book approach to these is that a break through this support is another sign that sentiment is shifting.

In early 2017, GSK slipped back to the 1,500p area then rallied strongly into the summer, trading back up towards the 1,720p mark. No market moves in a straight line forever of course and the share price turned down once more. But this time around, the old support was broken – a suggestion that things were changing. And interestingly, ahead of this, that trend line from 2015 was the first to break. So in this example there were two clues that perhaps investors were feeling that the price had gone far enough for now.

At this point, I am going to bring back in our very first example – the chart of Shell. Let's say that rather than looking for the trend line break, we were going to wait for previous support to break before selling our investment.

That previous major support never broke. The Shell share price did fall out of the uptrend but just traded sideways for six months, before then going on to start a fresh move higher. I highlight this not to show one approach is better than the other, but rather that no approach is perfect. What *is* important is that you have some mechanism in place to decide it is time to exit a position.

Failure at previous high

This is a variation on the "break of a low approach" detailed above. We can go back to the GSK chart for an example of this.

If a market rallies up to a level and runs out of steam then, temporarily at least, the consensus is that it is expensive enough for now. The test is what happens next. In a strong uptrend, when that previous high is approached it could well get broken and the market extends the trend and moves out to fresh highs for the overall move.

But sometimes that previous high turns out to be a real barrier. You can see on the GSK chart above the second move up to the 1,720p area had a few attempts at breaking through – but failed. So if you were in the shares and looking for an excuse to get out at a recent high point, this failure at that previous major high could have been your sign.

These are three simple approaches. The usual caveat applies – nothing works all the time, and there is no magic system that does. But given that it is the *selling* of an investment that realises our profit, the wise investor should spend some time weighing up what will be looked for to suggest this time has come.

Charts of the month

To turn this on its head to end this month's article, I thought I would look at two examples, using the approaches above, where the downtrend has ended so could be signalling that a new trend higher could be underway.

Tesco (LON:TSCO)

This one uses both approaches – looking for a trend that has broken and also a move through a previous level that had been something of an obstacle.

The past year has been a tough one for investors in Tesco. The share price started the year above 200p but had dropped by 15% by the summer. This has left a pretty good downtrend on the chart – look at how the rallies back to the line continually run out of steam. But recent months do suggest that investors could be feeling the weakness has gone far enough. The first evidence of this is that the trend line got broken for the first time in August and the share price rallied up to the 190p area. There has been quite a lot of what is best described as just choppy trading since then, but there does appear to be several probes through that old high around the 190p area. If this really is the start of the turn for the Tesco share price, then the old lows at 165p should not be broken, giving investors an obvious point for a stop loss.

Andrey Khachatryan / Shutterstock.com

International Consolidated Airlines Group (LON:IAG)

Here is an example that could have wrong-footed an investor on the break of the trend line. IAG is of course the parent company of British Airways, and from October 2016 through to September 2017 the price rose by more than 50%. But that trend line did break in September, perhaps encouraging some to prematurely exit their holdings. They may well have been kicking themselves over the following month or so, as the price moved higher still.

But this did end up being short-lived. Yes, that trend line has broken, but so far at least the big support ahead of 560p has held. So some could just view the trend line break as a slowing of the trend rather than the absolute end of the recovery. Once again, with such an obvious level of support, it does give any fresh investors a very clear level to set up a stop-loss should the IAG price finally reverse.

About David

David Jones qualified as a technical analyst in 1995 and started his City career as a currency analyst. He then went on to work for trading companies CMC Markets and IG Group as Chief Market Strategist. Since leaving the industry in 2013 he has been a presenter on BBC Radio 5 Live's Wake up to Money programme and the Chartist for Shares magazine. He is an active trader and private investor.

BY ALAN STEEL

DEATH & TAXES

WHAT THE BUDGET MEANS FOR YOU

***"In trying to please all, he had pleased none"* —Aesop**

Well another Budget slips by and this one came with plenty of rumours, expectation and so called "expert" predictions.

The Budget took its new autumn slot on the calendar to give plenty of time for new rules, allowances and changes to be implemented by the next tax year. The result, though, is that Hammond leaves most things untouched with little impact for the investor/saver.

It's been a tumultuous year for this government, which has been trying to please both young and old but has ended up losing the support of both!

The challenges

Trying to please everyone is never easy and prior to the Budget there was pressure to ditch business rate rises after lobbying by the British Chambers of Commerce. They argued the higher living wage, auto enrolment pensions and the new apprentice levy are already hitting the pockets of business owners.

Meanwhile, teachers and health workers were looking for wage rises following a pay cap in the past seven years; and although stamp duty intake has risen, property sales have fallen due to high stamp duty costs, meaning radical changes were sure to happen.

Pensions

The easy target over the past few years has been pensions, as most people don't understand them due to the complications of pensions "simplification" introduced by then Chancellor Gordon Brown in 2006. The rumour was that higher rate tax relief on pension contributions would go, and perhaps even the valuable tax-free cash available to those over the age of 55 would be restricted.

The good news, though, was that pensions were once again left untouched and higher rate tax payers can still get an effective 67% uplift on pension contributions – make hay while the sun shines I'd suggest.

For those earning under £150,000 you can still tuck away £40,000 as an annual contribution and don't forget to mop up any unused tax relief from previous years if available. For those with income over £150,000 your allowance is reduced on a 2 for 1 basis to £10,000 if your income is over £210,000, but carry forward of unused relief is still available. N.B. that's an easy one to be removed in future budgets!

So what were the changes? Well, there was a slight increase to the pension lifetime allowance from £1 million to £1.03 million in line with CPI. This is the maximum amount of funds that can be crystallised without any additional tax charge. This is worth an extra £16,500 to those without any lifetime allowance protection.

After years of Lifetime allowance reductions in past budgets this is a welcome increase but it's still a long way off the £1.8 million allowance available in the 2010/11 tax year.

I was hoping the Lifetime Allowance would be removed with a trade off being basic rate tax relief only on contributions going in. Why should investors be penalised for strong investment performance?

"HAMMOND LEAVES MOST THINGS UNTOUCHED WITH LITTLE IMPACT FOR THE INVESTOR/SAVER."

Twocoms / Shutterstock.com

"SHELTERING £40,000 FROM TAX PER COUPLE EVERY YEAR IS NOT BE SNIFFED AT!"

ISA/EIS

In the investment arena the main ISA allowance was left untouched with a generous £20,000 available – sheltering £40,000 from tax per couple every year is not be sniffed at! For those looking to build pots for children, perhaps for further education, the junior ISA allowance was increased to £4,260 per child.

The new dividend allowance will indeed be reduced from £5,000 to £2,000 from April 2018, so having as much as possible invested in ISAs makes sense to reduce the amount of taxable dividends within portfolios.

If you run ISA and non-ISA portfolios, it is worth noting that there has been a £400 increase to the Capital Gains Tax exemption to £11,700 per year – so using this valuable exemption and washing out gains into ISAs each year is a good idea.

Enterprise Investment Schemes (EISs) and small businesses were given a boost with EIS limits doubled to £2 million, but more controls over the type of qualifying business will apply. Mr Hammond seems to have finally got it that small businesses are important to the UK and are the engine room of many economies.

Frozen

One relief that did get frozen is indexation relief. Many of course will remember this used to apply to individually held shares. The idea was to reduce the capital gain for each year that the investment was held. This relief was still available for companies who were selling assets and one of the biggest target areas, I imagine, for the chancellor are those individuals who have set up companies for their property letting business. In future, any asset sold will still attract indexation relief but only up to January 2018, at which point relief will be frozen at that date.

Property

However, Buy-to-Let investors will be relieved to know that the plan to make investors pay Capital Gains Tax within 30 days of selling a property was not introduced. A surprise really, given the need to raise tax quickly and the current ability to leave CGT unpaid until 31st January following the tax year in which the gain occurred.

Aside from investments and pensions the biggest changes were increases to the personal allowance and higher rate tax threshold along with the removal of stamp duty on the first £300,000 for first-time buyers. The eagle-eyed among you may have picked up that those giveaways are not applicable to us Scots as we have different rates and will have to wait until 14th December to see what's in the Scottish Budget! With young people already struggling to get on the housing ladder, let's hope the same generosity prevails.

Opportunities

So are there any investment opportunities? Well with the government planning to build 300,000 homes per annum by 2025, the stamp duty removal should be encouraging news for housebuilders, and those suppliers of building materials. An increase in infrastructure spend should also help funds exposed to those areas, although much of that may already be priced in. Additionally, we remain way behind the US in technology research and investment in this area is welcome news.

Finally I had to laugh at the announcement of a Task Force to ensure continuity and growth in the asset management industry post Brexit. We are currently in the midst of adopting MIFIID 2 rules, which in simple terms are a directive from the EU taking up huge amounts of time, money and effort with little benefit to the end client. Still, if a task force helped the Ryder Cup team win, then it must be effective!

About Alan

Alan Steel rose to prominence in the financial sector after being the first person to put pen to paper to accuse Equitable Life of rampant mis-selling. A true champion of the ordinary saver/investor, Alan founded Alan Steel Asset Management in 1975, and now has over £1 billion under management. Visit the company website at www.alansteel.com.

This is the personal view of Alan and is not advice. Readers should take personalised independent advice on such matters.

BY FILIPE R. COSTA

HOW TO INVEST LIKE...

EDWARD ALTMAN

"The bond ratings of certain asset-related securities were much higher than they should have been. It was very much based on the easy liquidity and the benign credit cycle. At the same time, companies' risks were increasing a lot, which was shown in the Z-score models very clearly. So what we've done is we look at the median 50th percentile score in 2007 and we found that the median score was 1.81, with a bond rating equivalent of B. That means that 50% of the firms were lower and actually fell into the "old" distressed classification."

—Edward Altman,
commenting on the 2007-2008 financial crisis

This month we're going to look at a very special investment filter that has helped investors steer clear of some very risky situations. Alone, this filter may not be enough to properly select a portfolio of equities, but when mixed with a value or growth strategy, it is a powerful tool when it comes to avoiding trouble. I'm referring to a measure known as the Z-Score, which was created by Edward Altman almost 50 years ago when he first published his research about distress and bankruptcy. Since then, the Z-Score has been widely used by investment banks, commercial banks, hedge funds, investors, and everyone that is serious about identifying the probability of a

ALTMAN Z-SCORE STATISTICS BY MARKET

	FTSE 350	S&P 500	FTSE Small Cap	FTSE AIM All-Share
Nr. Observations	228	391	114	685
Mean	3.80	3.79	3.31	-1.91
Median	2.95	3.10	2.30	2.50
Minimum	-1.20	-7.40	-6.30	-3,153.80
Maximum	31.70	56.20	22.20	521.50
St. deviation	3.86	4.22	3.82	142.80
Safe Zone Obs.	50.00%	52.41%	41.38%	44.46%

"INVESTORS WOULD HAVE FARED MUCH BETTER DURING THE FINANCIAL CRISIS HAD THEY RELIED ON THE Z-SCORE INSTEAD OF RATINGS AGENCIES."

"MORE THAN 30 YEARS AFTER THE ORIGINAL Z-SCORE WORK WAS PUBLISHED, ITS SUCCESS RATE WHEN PREDICTING BANKRUPTCY WAS ESTIMATED AS HIGH AS BETWEEN 80% AND 90%."

company becoming distressed. Investors would have fared much better during the financial crisis had they relied on the Z-Score instead of ratings agencies. But when equity values are on the rise, everyone prefers to ignore warning signals rather than tread with care. After ten years of ultra low interest rates and massive liquidity injections into the financial system, balance sheets are becoming highly leveraged once again. More than ever, investors need a measure to filter the trouble away from their portfolios. That's where the Z-Score becomes handy.

Predicting financial distress

Born in 1941, Edward Altman has never been an investor – at least not in a professional sense. But his contributions to academia have been widely adopted by investment professionals. Altman holds a bachelor's degree in economics, an MBA and a PhD in finance. For the last several decades he has been working as professor of finance at New York University's Stern School of Business. He pioneered the development of models of credit risk management and bankruptcy prediction, on which he has been working for the last 50 years.

In 1968, Altman published some research where he developed a simple measure to predict corporate distress[i]. The tool, known as the Z-Score, is very useful when discriminating amongst companies by their likelihood of bankruptcy, and can predict trouble up to two years in advance. In the original work, Altman estimated a success rate of 72% for his model.

Later, more than 30 years after the original Z-Score work was published, its success rate when predicting bankruptcy was estimated as high as between 80% and 90%. While not without its weaknesses, the Z-Score is the best single number ever developed to predict potential distress. Conservative investors may use the measure as a last filter in their portfolio selection process to reduce the risk of their holdings. Other investors may use it along with a value strategy to better discriminate amongst their value selections. When estimated for the whole market, the score helps identify future trouble, in particular when Z-Scores are declining quickly.

Building the Z-Score

The Z-Score is a multivariate formula that measures the financial health of a company. In essence it is a weighted composite built from five different accounting ratios. It is relatively straightforward to implement and build, as the ratios behind it are easy to compute. Many stock screeners and investment software already incorporate the Z-Score, with no need for the user to compute any of its component ratios.

During the 1960s, Altman analysed financial statements in order to find a set of numbers that would help predict future distress and bankruptcy. From an initial collection of 22 ratios, Altman built a simple ratio composed of just five of them, which has proven to be very effective at predicting bankruptcy up to two years in advance.

The final ratio can be summarised by the following formula:

$$Z = 1.2A + 1.4B + 3.3C + 0.6D + 1.0E$$

The letters A to E correspond to accounting ratios, as described below.

- **A) Working Capital / Total Assets**

  This ratio measures liquidity. Working capital corresponds to the difference between a company's current assets and its current liabilities. When the value is positive, the company has sufficient liquidity to operate. When negative, the company may have to sell illiquid assets or rely on debt to operate. This means that the lower the ratio, the higher the distress risk. Altman puts this relationship in perspective by using the proportion of working capital to total assets, this way capturing the effect of firm size. Altman claims that this ratio is more powerful than the quick ratio and the current ratio.

- **B) Retained Profits / Total Assets**

  This ratio measures the proportion of cumulative profits to total assets. Retained profits corresponds to the part of profits the company doesn't pay to shareholders and which may be used to finance the business instead of resorting to debt. The older and more established the firm is, the larger retained profits would be. Nascent companies usually don't show any profits and should appear more risky by this ratio.

- **C) EBIT / Total Assets**

  This ratio measures the true productivity of the company, its ability to use its assets and turn them into a profitable business. Often more important than to evaluate the current risk of a business is to understand how things are going to evolve. A company may have no retained profits and negative working capital, but if it is turning sales into profits, it won't run into difficulties. The EBIT to total assets ratio captures the ability of the company to generate profits. Altman claims that profits are a better predictor of bankruptcy than cash flow.

- **D) Market Capitalisation / Total Liabilities**

  This ratio is a kind of coverage ratio or margin of safety. When the market capitalisation starts declining relative to total liabilities, the company may become insolvent. Market capitalisation corresponds to the market value of equity, and can be computed as total shares outstanding times share price. Total liabilities correspond to the balance sheet value of total liabilities.

- **E) Sales / Total Assets**

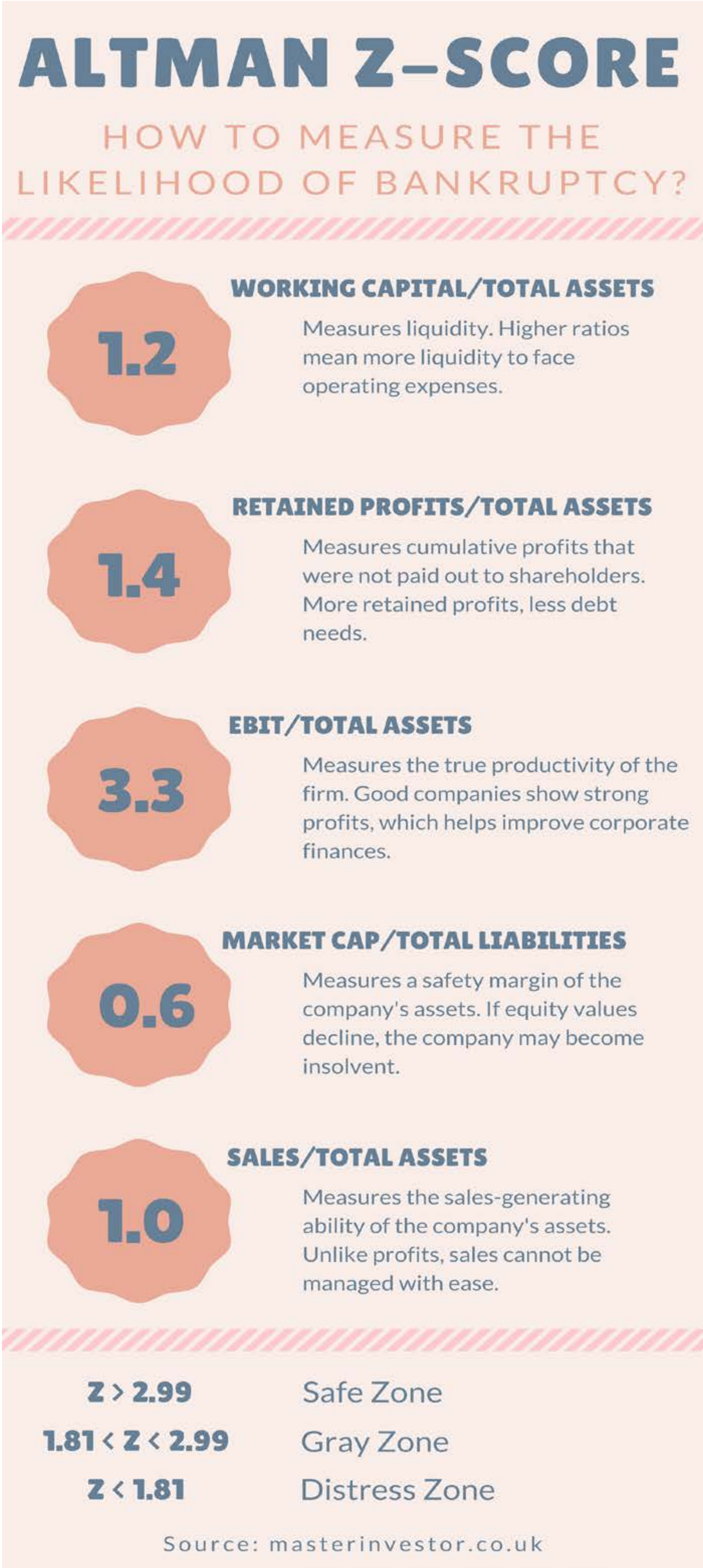
  Sales are the lifeblood of a business. When sales start shrinking for some reason, sooner or later the company will run into trouble. Good companies are able to generate high sales to total assets and thus show a good ratio here. There are some exceptions though. Altman recognises that sales turnover is an industry-sensitive ratio that depends on capital intensity. In a revision made to the original Z-Score, Altman removed this ratio from his final formula for non-manufacturing companies.

The original Z-Score formula is computed only for non-financial companies because financial companies are extremely "creative" in terms of loading up on off-balance sheet debt. When that happens, an attempt at estimating the Z-Score would result in under-estimation of the likelihood of bankruptcy.

In the analysis conducted by Altman, he proposes the following cut-offs for the Z-Score:

- Z-Score > 2.99 = "Safe" zone. The likelihood of bankruptcy occurring during the next two years is low.
- 1.81 < Z-Score < 2.99 = "Grey" zone. When the Z-Score ranks inside this interval, investors should be cautious because there is a good likelihood of bankruptcy happening in the next two years.
- Z-Score < 1.81 = "Distress" zone. The score indicates a high probability of distress occurring in the next two years.

For non-manufacturing companies, Altman proposes an alternative formula[ii], with re-estimated parameters and two main differences. First, it doesn't include the sales turnover ratio (E). Second, the market capitalisation to total liabilities ratio is replaced by book value of equity to total liabilities (D).



The thresholds 1.81 and 2.99 are also replaced by 1.10 and 2.60, respectively.

$$Z = 6.56A + 3.26B + 6.72C + 1.05D$$

Some drawbacks

Altman's Z-Score should not be used as an exclusive means of discriminating among companies, because it suffers from some drawbacks as most other tools do. But while not being perfect, it does a pretty good job of distinguishing between financially sound companies and potentially distressed ones. It is particularly useful as a layer of discrimination in portfolio management to help mitigate risk.

Some have pointed to the fact that the measure penalises younger companies, as these have much less retained earnings, if any at all. The ratio attributes a higher likelihood of bankruptcy for younger firms relative to older firms, when all else is held constant. "But, this is precisely the situation in the real world. The incidence of failure is much higher in a firm's earlier years", Altman observes.

Others point to the fact that negative working capital is not always a bad sign, in particular for a company with a high rotation of assets being paid in cash and paying suppliers on credit. But in such cases the other component ratios of the Z-Score will likely become improved. Sales turnover, for example, would likely be higher at a company with high rotation.

Developing a strategy

Unlike past editions of this column, we can't present the investment strategy of Edward Altman, because Altman is not really an investor but rather an academic. What we can do is use Altman's work to develop a simple investment strategy, in order to improve the risk-reward of our portfolios.

A simple option would be to use the Z-Score threshold as a signal to buy and sell stocks. As we certainly would like to avoid bankruptcy, we could use the 2.99 cut-off to buy stocks and the 1.81 cut-off to short sell them. Implementing such a simple strategy would be easy. *But, would it outperform the market? Would it even deliver any profits at all?*

The short answer to the above questions is: *No!* In using the Z-Score as a selection tool we are forgetting the crucial point of any investment strategy: to pick value. Everything should have a price, even a distressed firm. An investor wouldn't mind buying shares in a distressed firm if he could turn a profit. In a similar fashion, no investor would be willing to buy shares in a financially sound business if he can't make a profit, no matter how financially sound the company is.

If we take into consideration the behavioural biases that usually impact financial markets, more often than not the prices of low Z-Score companies would tend to be highly depressed, due to investors' overreaction to bad news. In this sense, a strategy based on purchasing shares from companies with Z-Scores below 1.81 would tend to perform better than a strategy based on purchasing shares from companies with high Z-Scores. There are plenty of studies showing this to be the case. But still, we can do much better, because we still can't be sure whether we would be picking value or not.

A second option would be to use the Z-Score as an additional filter. We could define an investment strategy that features the Z-Score as one of the criteria, as a way of reducing portfolio risk, for example. For the sake of building a simple strategy with the Z-Score, let's use four different filters:

1. **Market capitalisation**

   This is a liquidity filter to assure we can easily buy and sell shares without incurring high costs. A huge bid-ask spread increases transaction costs and makes pricing less transparent. Similar to other strategies reviewed in this column, we impose a market capitalisation of at least £200 million (or $200 million for U.S. stocks). Investors may tweak this value as desired.

2. **Price-to-sales ratio**

   The price-to-sales ratio is our value criteria. Instead of using a price-to-earnings ratio or a price-to-book ratio, we're using a ratio that has been reported by James O'Shaughnessy (issue 31 – October 2017) as being the best single indicator of value. While earnings can be managed from period to period and are more of a consequence of the business, sales are not manageable and are a cause of the business. As with the filter imposed by O'Shaughnessy, we require the price-to-sales ratio to be less than or equal to 1.5.

3. **Relative price strength**

   The relative price strength is a momentum indicator.

   As O'Shaughnessy claims from his research, relative price strength is probably one of the worst indicators to pick stocks when used alone. But, when used along with value criteria, it prevents investors from entering a market too soon. One of the main problems with value investing is that while a strategy may prove profitable over time, it often needs months, if not years, of patience (and money). Through requiring that the relative price strength is positive or above some threshold, we increase the odds of the recovery being already underway. We're using a filter requiring that relative price strength relative to the relevant market index for the last three months is positive. The price-to-sales requirement is at the other end, assuring it is not too late to purchase the stock.

4. **Z-Score**

   Finally, we can add the Altman Z-Score filter. Because the price-to-sales filter is picking stocks that appear undervalued, we must make sure that those stocks are really undervalued and not trading at low prices due to financial trouble. What makes the most sense then is to require the Z-Score to be above a certain level. We're using the 2.99 level to choose only stocks in the "safe" zone.

Now that we have developed a simple strategy based on the Altman Z-Score, we can apply it to a list of non-financial stocks. We can then pick all stocks in the list or rank them in some preferred order and pick a certain number of stocks. In any case, the number should always be enough to mitigate idiosyncratic (i.e. stock-specific) risk.

AN INVESTMENT STRATEGY USING THE Z-SCORE – UK SHARES

Asset	Industry	Market Cap. (£m)	Z-score	P/S Ratio	Relative Strength
Barratt Developments PLC	Consumer Goods	£6386.2	4.1	1.4	2.7
Bovis Homes Group PLC	Consumer Goods	£1496.8	3.9	1.4	9.9
Computacenter PLC	Technology	£1341.6	4.4	0.4	22.3
Connect Group PLC	Industrials	£283.3	6.4	0.2	13.3
Cranswick PLC	Consumer Goods	£1527.2	8.2	1.2	0.9
Ferguson PLC	Industrials	£13493.4	4.1	0.9	15.2
Johnson Matthey PLC	Basic Materials	£6350.8	5.3	0.5	16.9
McCarthy & Stone PLC	Consumer Goods	£900.6	6.0	1.3	0.8
Mears Group PLC	Industrials	£455.5	3.4	0.5	1.5
SDL PLC	Technology	£393.8	3.5	1.5	0.9
Softcat PLC	Technology	£1068.2	8.9	1.3	31.6
Wood Group (John) PLC	Oil & Gas	£4667.6	3.8	0.9	18.9

AN INVESTMENT STRATEGY USING THE Z-SCORE – US SHARES

Asset	Industry	Market Cap. ($m)	Z-score	P/S Ratio	Relative Strength
Alon USA Partners LP	Oil & Gas	$907.9	3.5	0.5	32.0
American Eagle Outf. Inc	Consumer Services	$2632.4	7.2	0.8	25.8
Bassett Furniture Ind. Inc	Consumer Goods	$423.5	5.4	1.0	4.8
Bemis Company Inc	Industrials	$4114.1	3.5	1.1	1.5
Boise Cascade Co	Basic Materials	$1443.1	4.5	0.4	22.1
Builders FirstSource Inc	Industrials	$2181.3	3.0	0.3	16.5
C.H. Robinson World. Inc	Industrials	$11030.2	8.3	0.9	10.9
Invacare Corp	Health Care	$579.1	3.2	0.5	23.1
Mattel Inc	Consumer Services	$6410.2	4.2	1.2	4.5
NETGEAR Inc	Technology	$1606.5	4.8	1.3	5.4
PACCAR Inc	Industrials	$23788.3	3.0	1.4	1.0
YY Inc	Technology	$144617.4	19.2	0.8	46.2

A final filter

When trying to improve expected returns, investors often end up adding risk to the portfolio, which means all they get is beta, not alpha. Smaller companies, more leveraged businesses, and nascent companies with unproven track records can all bring great enhancements to portfolio returns, but should be approached with care. If investors could filter some of these potential purchases with a simple and straightforward measure that helps reduce exposure to unnecessary risks, performance could be improved. The Altman Z-Score is that single measure that any investor should use as a final filter on portfolio holdings.

While the Z-Score is not helpful as a selection tool, it may easily be mixed with other quantitative or qualitative filters to build a powerful investment strategy which is able to deliver real alpha.

About Filipe

Filipe has been a contributor to Master Investor since the earliest years. His specialisation is monetary policy, macro issues and behavioural finance where he allies the practical experience of several years of trading with academic credentials. Filipe in fact teaches courses on Financial Markets and Monetary Economics at the University of Oporto Faculty of Economics, helping traders maximise profits and better manage risk.

i **Altman, E. I. (1968). Financial ratios, discriminant analysis and the prediction of corporate bankruptcy. *The journal of finance*, 23(4), 589-609.**

ii **Altman, E. I. (2000). Predicting financial distress of companies: revisiting the Z-Score and ZETA models. *Stern School of Business*, New York University, 9-12.**

BY CARL SHAVE

BRICKS & MORTAR

HOW CAN PROPERTY INVESTORS LEVERAGE THE GIG ECONOMY TO FILL THE VOID?

It is now well over a year since the referendum in which the British people voted to leave the European Union, and it is probably fair to say that it is an issue that continues to divide both the populace and the political classes. However, despite ongoing dispute over exactly what the impact will be on the UK's economy in both the short and long term, it is undeniable that we have entered a period of considerable uncertainty, and that this is having an effect on many aspects of the economic ecosystem – not least upon the property market. But is it all doom and gloom? Or are there opportunities and potential gains to be made from properly targeted property investment in these uncertain times?

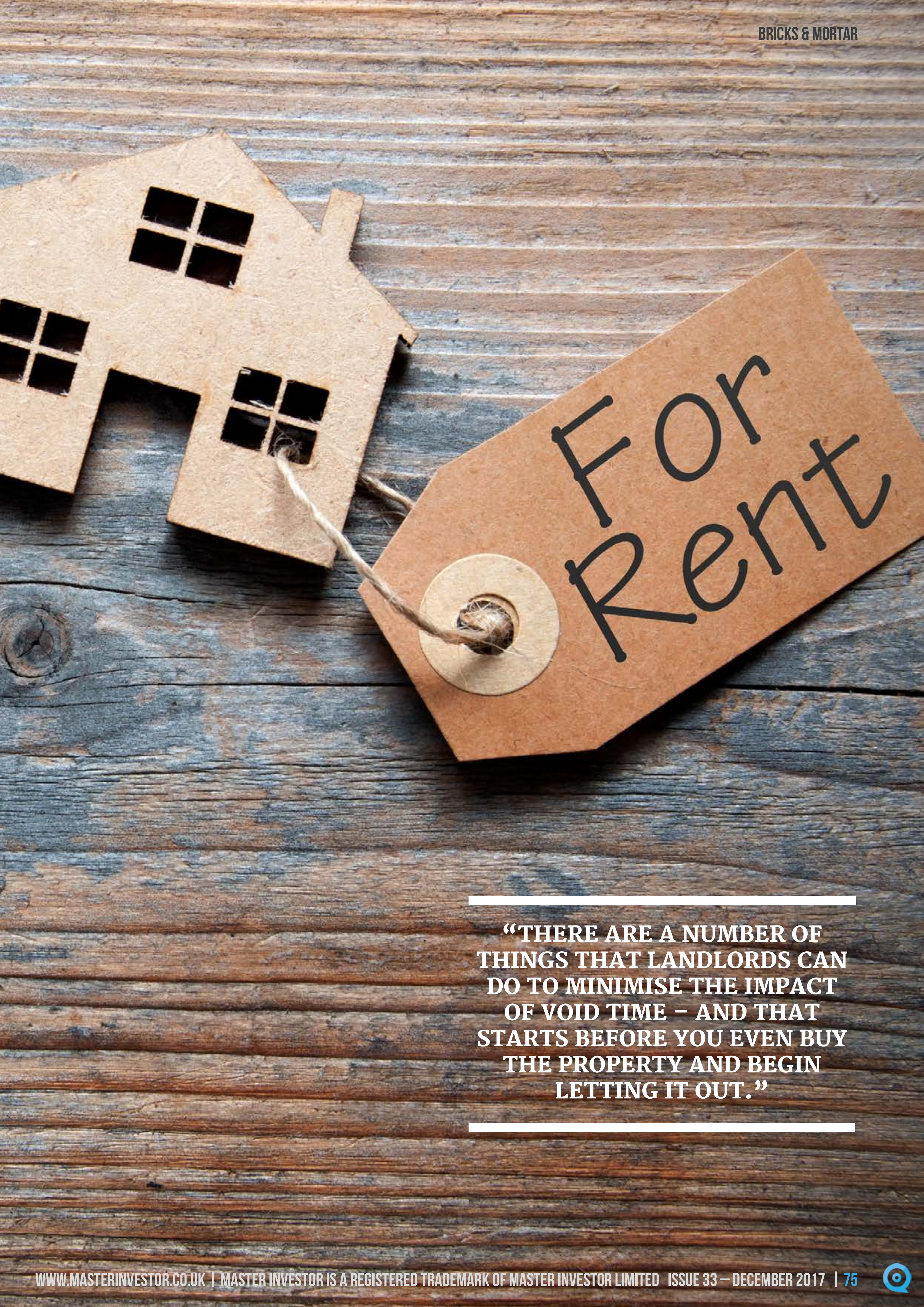
For buy-to-let landlords, void periods – those gaps in between tenancies where you receive no rental income from your property – can be both inevitable, and a recurring problem. Research by Direct Line last year revealed that the average loss to a landlord due to void time is just under £550 every 18 months. Over the lifetime of a property, that can really add up.

Direct Line's figure was based on an average void period of 22 days between a tenancy period ending, and getting a new tenant into the property. If you are unfortunate enough to have bought property in an area with volatile rental demand, the financial impact could be even worse – especially as your property-related expenditure over that period, such as mortgage and insurance payments, must still be paid regardless of whether the property is tenanted or not.

Minimising void time

Most property investors accept void periods as an unfortunate but unavoidable reality of letting to private tenants, and it's often a good idea when working out the financials to figure in a void period of at least one full month in each year when there will be no rental income. Having said that, there are a number of things that landlords can do to minimise the impact of void time – and that starts before you even buy the property and begin letting it out.

Do your own research in the area that you're considering buying, taking into account both rental demand and the wider property market. Always remember that you want to consider past trends, not just a snapshot of current market performance. Some areas display consistently strong rental



"THERE ARE A NUMBER OF THINGS THAT LANDLORDS CAN DO TO MINIMISE THE IMPACT OF VOID TIME – AND THAT STARTS BEFORE YOU EVEN BUY THE PROPERTY AND BEGIN LETTING IT OUT."

demand, but in other regions demand can be more volatile or cyclical. Also consider whether there are any local factors that might affect rental demand in the future, for example plans to build affordable housing (or local authority/housing association properties) nearby.

The rental market can be competitive, so ensure your property is decorated, furnished and outfitted to the best possible effect within your planned budget. Look carefully at rent levels in your area and take these into account when working out how much to charge in rent; as an investor you want to maximise your income, but renters can be highly price-sensitive, and pitching your price just 5% too high could have a direct impact on your void time.

Get good tenants and do your best to keep them. Vet any prospective tenant thoroughly (or ensure that your letting agent does) and on top of this, build a profile of your ideal tenant and advertise appropriately to attract the right type. Once you have a tenant in the property, be the best landlord you can; good tenants deserve to be treated well. Retain tenants by respecting their rights and ensuring any complaints or requests for repairs are dealt with promptly.

If an existing tenant does decide to move on, then in most cases you will have at least one month's notice. Make good use of that time, and ensure that either you or your letting agents are pulling out all the stops to advertise to prospective new tenants. If there is going to be a void period before the property is let again, you should also consider taking the opportunity to redecorate or refurbish as necessary to ensure the property is as attractive as possible to new prospects.

Enter Airbnb

If you expect your property to be without a tenant in the short to medium term, Airbnb could potentially provide a way to maintain an income stream during the void period. Founded in San Francisco in 2008, Airbnb is an online marketplace that connects hosts looking to let out a room – or an entire property – with guests who need somewhere to stay, typically on a short-term basis. Stays can range from overnight

"AIRBNB COULD POTENTIALLY PROVIDE A WAY TO MAINTAIN AN INCOME STREAM DURING THE VOID PERIOD."

to longer-term accommodation. In Greater London, the maximum stay is 90 days, unless you have appropriate planning permission from the local authority.

Homeowners across the UK are taking advantage of the "gig economy" nature of Airbnb to supplement household incomes. The number of guests using the service in the UK has shot up 80% over the past year, with around 64,000 room and property listings in London alone. Airbnb collects and processes guests' payments through a secure online system, deducting a 3% service fee.

airbnb

If you own the property outright, then the main constraint that may apply to letting it out via Airbnb is in the case of local planning rules restricting the usage of properties; if in doubt, check with the local authority whether any such restrictions exist. If you don't own the property outright but have a buy-to-let mortgage secured on it, the situation becomes a little more complex. Airbnb is a fairly new innovation in the UK property market, and lenders vary in their approach.

Some lenders allow Airbnb-type lettings provided you request their consent in advance, while others, such as Nationwide, explicitly don't allow this type of letting on their buy-to-let mortgages. Some other lenders have more specific rules which effectively prevent letting all or part of the property on a short-term basis; for example, RBS buy-to-let mortgages stipulate that tenancy periods must be for a minimum of six months, while many other lenders require that all lets be covered by a standard tenancy agreement.

If you are in any doubt whatsoever about whether such short-term letting is permitted by your mortgage conditions, get in touch with your buy-to-let lender. If you don't, you could be in breach of the mortgage terms and, in theory, the lender could request immediate repayment of the loan.

Other factors to take into account

You won't be able to vet short-term Airbnb guests in the same way that you would a longer-term tenant, but you can view the user's profile on the Airbnb platform and ultimately have the freedom to approve or decline any guest who wants to stay at your property. You can also limit the reservations you accept to only guests who have been approved by Airbnb's "Verified ID" procedure.

"AIRBNB PROVIDES ITS USERS WITH A HOST GUARANTEE WHICH – WITH CERTAIN LIMITS AND EXCLUSIONS – COVERS PROPERTY DAMAGE UP TO THE VALUE OF £600,000."

You can set your own price, but remember that you may have to factor in costs – such as utility bills, council tax, and phone or broadband services – that would usually be paid by the tenant under a normal tenancy agreement. You also have to provide Airbnb guests with basic amenities such as bedding, soap and toilet paper.

In terms of protecting your property and any furnishings it contains, you should check with your buildings, contents or landlord insurance provider whether the policy will continue to provide protection in the case of a short-term let with no tenancy agreement in place. In any case, Airbnb provides its users with a Host Guarantee which – with certain limits and exclusions – covers property damage up to the value of £600,000.

Airbnb also automatically provides Host Protection Insurance, which gives more specific cover up to the value of $1,000,000 in the event of third party claims of bodily injury or property damage from a guest. Between the Host Guarantee and Host Protection Insurance, property owners can have a degree of peace of mind even if the worst should happen. As a final level of protection, when listing a property on the Airbnb platform it's possible to make reservations subject to a refundable security deposit, which can help cover minor breakages or damage.

Don't discount the gig economy

When it comes to void periods in your rental properties, prevention is definitely better than cure. Offering clean, well-maintained accommodation at a competitive rent level – and treating good tenants well – can help minimise void time, if not completely eliminate it. If and when a tenant does choose to leave, push your marketing efforts into overdrive to get a new tenant in there as quickly as possible.

However, if a void period is unavoidable, don't discount taking advantage of the gig economy and using Airbnb – or similar schemes such as HomeAway or OneFineStay – to maintain an income stream while you try to attract a new long-term tenant. It can take a bit of work and background research – including checking things out with your local authority, lender and insurance provider – but done right it can help fill what could otherwise be a period of financial loss on your property investment.

About Carl

Carl is a seasoned commentator on financial matters and one of the minds behind Just Mortgage Brokers. He has worked in the mortgage industry for over 20 years, first working for a high street lender, before departing to set up and run his own branch of mortgage brokers back in 2002.

NOVEMBER 2017

YOUR VIEW

We invite reader comments and discussions on our social media channels as well as in the comments section below each blog article. Readers can post using their real name or a pseudonym.

Every month, we pick some of the most interesting comments and exchanges, and print them in our magazine.

Thanks to the calibre of our readership, we get some incredibly insightful, thought-provoking and informative comments and emails. By passing some of them on, we hope that readers are also able to connect and learn from one another – and maybe catch up in person at one of the events we organise!

All comments reflect the individual reader's view. They have been edited for grammar, spelling and punctuation.

Mellon on the Markets

Inside the mind of the Master Investor: billionaire investor Jim Mellon talks air travel, FANG stocks, Japan, bonds and inflation.

"Hi Jim, thanks for the great post as always. I'm an MBA student from England currently studying in the great state of Texas, and have been following the Master Investor blog for about a year and a half now. Low wage growth is always an issue that bugs me.

A rise in productivity should, to some extent, give overall wages a boost. I believe I am correct in thinking low productivity has plagued developed economies for some years now. You can't force employers to pay higher wages unless the state forces them to. I'm guessing your theory to improve wage growth is that non-skilled jobs will see an increase in pay; therefore, companies offering skilled positions will be forced to pay higher wages too. I know this is alleged economics 101, but won't this cut the demand for labour? Or is this inevitable due to other factors such as technology etc?

I have two suggestions to benefit wage growth: the first, to reduce subsidized pay and unemployment benefit; and the second, set strict quotas employing foreign labour for low/semi skilled positions (post-Brexit for the UK). This would, in essence, force employers to raise wages, or else nobody will want to work for them. Further, the unemployed will not be able to sustain a decent standard of living and will, of course, desire higher wages."

- Sam

How to prepare for the coming tax onslaught

Growing pressure for more public spending means tax rises look inevitable. Here's what you can do to make sure you keep out of the crosshairs of the taxman.

"You forgot to put "high earners" at the end of paragraph three in inverted commas. Let's be clear, Labour's plans will involve taxing the medium to low earner just as much, even if they won't admit it.

Second, it was interesting that at the end of Labour's conference it was admitted by John McDonnell, the Shadow Chancellor, that they are planning for a run on sterling "when" they take power. None of the media asked what their plans are. Well, the only way to defend a currency is to raise interest rates significantly. Good luck to all those with a mortgage.

Finally, I should point out that any government can change the rules, retrospectively, if they wish, so it seems pointless to plan now (which may turn out to have been unnecessary) but have the ground taken from under your feet if they come to power. I would be particularly worried about ISAs and their current tax-free status.

At the end of the day you can only plan for what you know – which is the status quo (not the group!)."

- Nigie

BY RICHARD GILL, CFA

BOOK REVIEW

THE DEALS OF WARREN BUFFETT

VOL 1: THE FIRST $100 MILLION

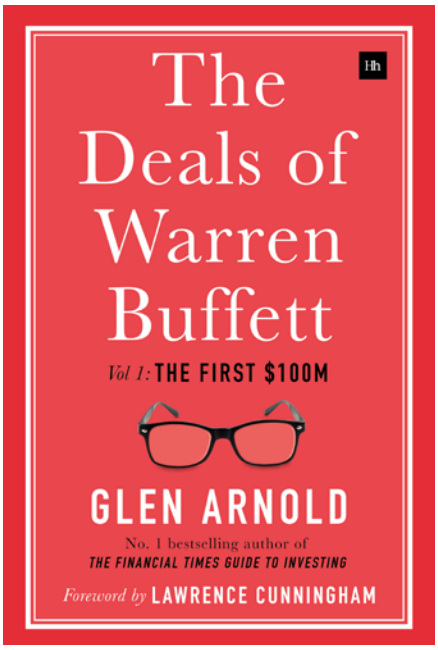
BY GLEN ARNOLD

Warren Buffet is not only a great investor; he's a great bloke too. Someone you wouldn't mind going for a few drinks with and setting the world to rights.

For a start, the words of wisdom in his famous Berkshire Hathaway shareholder letters are so influential that they are widely quoted amongst the investment industry and are the subject of several books. He is a great philanthropist, pledging over $30 billion worth of Berkshire Hathaway shares to the Bill & Melinda Gates Foundation and insisting that he give away more than 99% of his own wealth to charitable causes during his lifetime or upon his death. For a billionaire Buffett is also incredibly modest, still living in the same 3-bed house in Omaha he bought for just $31,500 in 1958.

But at the bottom line, Buffett is considered such a legend amongst investors because of his track record of delivering consistent market beating returns over a career spanning more than half a century.

Buffett first got into investing at just 11 years old, using cash earned from his paper round and other ventures to buy farmland in his home state. Boosted by the proceeds of a pinball machine business and other shrewd dealings, by the time Buffett was 15 he already had a net worth of around $6,000 – c.$80,000



in today's money adjusted for inflation. Fast forward to today and according to the Forbes 400 the 87-year-old is the 3rd richest person in America, with a fortune of $78 billion. The only people ahead of him are Microsoft's Bill Gates and Amazon's Jeff Bezos.

However, Buffett's wealth hasn't grown in a straight line over his career. As the chart below shows, it has gone up in a distinct "hockey stick" shape over the course of his life. Starting out with $120 of savings in 1941 it took him an estimated 37 years to make his first $100 million, a figure which is now almost a rounding error compared to his total wealth.

In *The Deals of Warren Buffett: Volume 1*, author Glen Arnold looks at the deals that took Buffett to his first $100 million, explaining the rationale behind each major investment and showing how he accumulated wealth in the first few decades of his career.

Professor Arnold is a prolific writer, having penned the top selling book *The*

"STARTING OUT WITH $120 OF SAVINGS IN 1941 IT TOOK HIM AN ESTIMATED 37 YEARS TO MAKE HIS FIRST $100 MILLION."

Krista Kennell / Shutterstock.com

Financial Times Guide to Investing, the beginners' guide *Get Started in Shares* and a number of university textbooks. As an academic he has held positions including Professor of Investment and Professor of Corporate Finance, but now prefers to concentrate on making money in the markets. He currently spends most of his time running his equity portfolio from an office in the heart of rural Leicestershire, far from the noise of the City of London.

Part One of the book, which amounts to a single chapter, summarises the investment deals covered in the rest of the book and discusses how Buffett has considerably outperformed the market over his career. The author also discusses the role of Benjamin Graham in shaping Buffett's investment philosophy. Buffett has previously said that his style is 85% based on the "Father of Value Investing", having read Graham's seminal work, *The Intelligent Investor,* as a teenager, studying at his Columbia University course and then spending two years working for him as a security analyst.

Part Two is the core text of the book and across 22 chapters covers some of the most important deals which brought Buffett towards his first $100 million.

While not the most critical in terms of value, the first deal shows how Buffett started off in the investment world and learned a few important lessons early on in his life. At just 11 years old he bought six shares in oil services business Cities Services for $38.25 each, combining his funds with his sister Doris. The shares plunged in value within a few weeks but recovered before Buffet sold out for a profit of just $1.75 a share. They then went on to rise to $202 per share.

Each chapter ends with a discussion of a few key learning points, critical lessons learned by Buffet with each investment which investors can apply to their own dealings. In the case of Cities Services the author points out that small profits should not be focussed on, intrinsic value should be considered rather than what you paid for a share and that investing other people's money (in this case Doris's) can create ill feeling if something goes wrong.

Moving on a few years and one investment which is considered to be a masterstroke by Arnold is Buffett's 1972 purchase of California based sweet seller See's Candies for $25 million. Despite going against the principals of mentor Benjamin Graham by paying over three times net tangible asset value, Buffett saw great potential in the business given its strong brand value, focus on quality, loyal customer base and potential for premium pricing. Driven by the work of CEO Chuck Huggins, who retired at age 81, the business has since gone on to deliver over $2 billion in profits for Buffett to go on and invest in other businesses.

After covering the major deals, the book ends in 1978 when Buffett, now aged 48, had accumulated a nine-figure net worth. However, his investments were held in such a spider web of different entities that a few years earlier he had caught the attention of the SEC, with the regulator concerned about the potential for conflicts of interest. Despite being found guilty of artificially inflating the share price of one company no action was taken, with Buffett getting off with a slap on the wrist. Determined to simplify the businesses, he finally consolidated his investments into the now famous holding company, Berkshire Hathaway. Almost 40 years on and the business is one of the largest in the world, worth a cool $447 billion.

While scores of books have been written about Warren Buffett, Prof. Arnold has created a work from which anyone interested in the Sage of Omaha – and investing in general – can learn something new. The author provides great insights into the thinking behind each major deal, how Buffett crafted his own investment style and how numerous colleagues and friends helped him along the way. For any investor keen to learn how to repeat Buffett's success this is a must read.

EXCLUSIVE BOOK OFFER

Get 20% off RRP ***The Deals of Warren Buffett. Vol 1: The First $100 Million***
Visit www.harriman-house.com/dealsofwarrenbuffett1 and use **promo code**:

MASTERBOOK17

Code can only be used on the Harriman House website. Minimum order of £5 required. P&P will be added at the checkout.

About Richard

Richard Gill is an investment analyst with over a decade's experience of analysing small/mid cap equities. He is the Head of Research at Align Research. Richard qualified with the Chartered Financial Analyst (CFA) designation in 2012 and was awarded PLUS Markets Financial Writer of the Year at the 2008 PLUS Awards. He has been a judge at the Small Cap Awards from 2013 to 2017.

BY TIM PRICE

THE FINAL WORD

A FORK IN THE ROAD:

WERE WE WRONG TO RESCUE THE BANKS?

There are times when certain decisions have an unusual impact on subsequent events. We reach, in other words, a 'fork in the road', and the choices taken – or not taken – have an incalculable impact on the future.

The weekend of 13/14 September 2008 represented precisely one of those forks in the road. At just past 7am on Saturday 13 September 2008, Jamie Dimon, the CEO of JP Morgan, walked into his home library and dialled into a conference call with his management team. Here is what he told them:

> *You are about to experience the most unbelievable week in America ever, and we have to prepare for the worst case. Here's the drill. We need to prepare right now for Lehman Brothers filing [for Chapter 11 bankruptcy protection]. And for Merrill Lynch filing. And for AIG filing. And for Morgan Stanley filing. And potentially for Goldman Sachs filing.*

There was a collective gasp on the phone. Unsurprisingly so, since what Dimon was envisaging amounted to an extinction level event for Wall Street.

The US authorities had reached that fork in the road: To shore up Lehman Brothers – and the rest of the investment banks? Or let them fail and allow the tender mercies of the free market to do their worst?

Our own fork in the road came just three weeks later.

The journalist Ian Fraser takes up the story. The following brief extract is from his book *Shredded: Inside RBS:*

> *[Then chancellor] Alasdair Darling landed in Luxembourg at 7.15am on Tuesday 7th October for a meeting with other EU finance ministers. He had only been in the meeting for a few minutes when his special advisor, Geoffrey Spence, called him out. RBS shares were in freefall and had already been suspended twice that morning.*

"WE NOW LIVE WITH EXPLICIT FINANCIAL REPRESSION."

"IT IS NOW A COMMONPLACE TO LAMENT THE ECONOMIC INEQUALITY THAT AUSTERITY HAS BROUGHT IN ITS WAKE. BUT WHAT IF ECONOMIC INEQUALITY HAD BEEN MASSIVELY REINFORCED BY THE VERY QE THAT CENTRAL BANKS HAVE FORCED INTO THE SYSTEM?"

> *Darling went back into the meeting, only to be called back out again an hour later. RBS chairman Sir Tom McKillop was on the line. Darling, who was looking out over a rain-swept industrial estate, says: "He sounded shell-shocked. I asked him how long the bank could keep going." His answer was chilling. "A couple of hours, maybe."*

Once again, our monetary authorities were faced with the same decision. Bail out RBS? Or let the free market take its scalp?

In both cases, the administrations elected (after the messy collapse of Lehman Brothers, at least) to step in and salvage the banking systems. In doing so, they initiated a course of events that has changed financial history and the entire focus of modern economic theory.

Felix Lipov / Shutterstock.com

Whether it was the right thing or not to bail out the bankers is now a purely academic issue – there is no counter-factual, so we will never know what the consequences of free market practice might have been. For what it's worth, I side with the journalist and author and former bond salesman Michael Lewis. On the fifth anniversary of Lehman Brothers' bankruptcy, Lewis was asked in an interview with Bloomberg BusinessWeek whether he thought the company had been unfairly singled out when it was allowed to fail – given that every other investment bank would then be quickly rescued by the US taxpayer. His response:

> *Lehman Brothers was the only one that experienced justice. They should all have been left to the mercy of the marketplace. I don't feel, oh, how sad that Lehman went down. I feel, how sad that Goldman Sachs and Morgan Stanley didn't follow. I would've liked to have seen the crisis play itself out more. The problem is, we would all have paid the price. It's a close call, but I think the long term effects would have been better.*

What are some of the long term effects that arose after the bail-out of the banking system?

In the first instance, we now live with explicit financial repression. Interest rates have been driven down towards zero and in some cases, below it. Danish mortgage-holders, for example, are now being paid to borrow money – Alice in Wonderland economic policy if there ever was.

In a world of zero interest rates, strange things happen. You might think that economic activity would swiftly rebound. That is not what has transpired. The blogger MarkGB (whom you can follow on Twitter via @MarkGBblog – and I recommend that you do) addresses the problem:

> *Beyond a certain level of indebtedness, which we reached earlier this decade, the psychology of the markets shifted...not as in 'gear change'...but as in 'tectonic plate'. This is how the shift has affected behaviour:*
>
> *a) Consumers refuse to buy any more crap that they don't need with money that they don't have. So they 'make do' with what they've got. This used to be called 'common sense'.*
>
> *b) Business people – who lose their jobs unless they return earnings to shareholders – realise that an economy where the cost of money is zero is artificial and sick. The last thing they have felt emboldened to do, for years now, is to invest in a glowing future that is nowhere in sight. So instead, they borrow to buy back their own shares, which boosts earnings per share and keeps them sitting round the boardroom table...for now, anyway.*

"IT'S WORTH CHECKING WHAT'S IN YOUR OWN PENSION FUND, GIVEN THAT I WOULD DESCRIBE THE BOND MARKETS TODAY AS UTTERLY UNINVESTIBLE."

c) Savers – a selfish bunch of responsible human beings who are thoroughly disapproved of by economists (a selfish bunch of irresponsible human beings who thoroughly approve of themselves) – rather than thinking 'what's the point in saving at these rates, I'll buy stuff'...think: I'd better save even more to make sure I can support myself in retirement'.

d) Banks, who can make billions from front-running the Federal Reserve, who can park their QE back at the Fed for interest, have no imperative to provide loans to the diminishing number of smaller businesses who are still looking to expand.

In short...QE (Quantitative Easing), ZIRP (Zero Interest Rate Policy) and NIRP (Negative Interest Rate Policy) have been deflationary, not inflationary.

If MarkGB is right, and I am minded to believe that he is, it is beyond a disgrace that the implementation of QE as monetary policy implemented by our central banks has not been more vocally challenged. It is now a commonplace to lament the economic inequality that austerity has brought in its wake. But what if economic inequality had been massively reinforced by the very QE that central banks have forced into the system? By printing trillions of dollars, pounds and euros out of thin air and then pumping that cash into the financial markets, our central banks have inflated the prices of stocks, bonds and property. Mark 4:25:

> *For he that hath, to him shall be given; and he that hath not, from him shall be taken even that which he hath.*

For those who already possessed financial assets before the crisis, QE has made them effortlessly richer. For those who had nothing by way of financial assets before the failure of Lehman Brothers and the implementation of global QE programmes, they are now undeniably worse off. They earn nothing by way of savings, jobs are more difficult to come by, wage growth is derisory, and housing has become far more unaffordable. Thanks, Mark Carney, for doing your bit for social cohesion.

The extraordinary monetary support given to the banks has had other consequences too. It has led to an oblique war on cash. It is now increasingly difficult to transact in physical currency at all. Our monetary authorities would far prefer us to engage in purely electronic transfers. I'm no Luddite and I can see the convenience of electronic cash, but I prefer not to relinquish physical cash absolutely. If our authorities persist in forcing us down an exclusively electronic-only payments system, they can then force negative interest rates on savers, safe in the knowledge that there is no way to evade them.

The ultra-low bond yields that are a function of QE also have consequences. Pension schemes are now laden with government debt at its most expensive levels in world history. By the Bank of England's own data, interest rates have not been lower for 5,000 years. At the same time, interest rates are slowly in the process of nudging higher (the US Federal Reserve is far further along the process of interest rate normalisation than we are). But there is one iron law in finance: if interest rates go up, bond prices go down. So a generation of savers and pensioners could see most of their assets go up in smoke in the event that a rising rate environment gives rise to a pronounced bear market in bonds. It's worth checking what's in your own pension fund, given that I would describe the bond markets today as utterly uninvestible.

There are other consequences, too. Just about every central bank is in the process of conducting currency wars, but clearly not everyone can devalue their currency at the expense of everyone else – there have to be relative winners and losers.

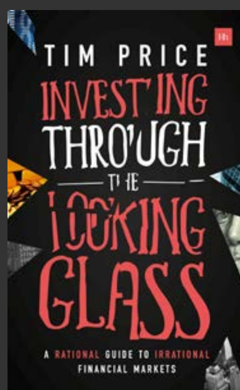
It is also unclear whether the future might involve stagflation – a messy throwback to the 1970s – or perhaps even an uncomfortably high inflation if the central banks finally and conclusively lose control of the printing press.

So be careful what you wish for. In "saving" the banking system, our authorities may have actually done precisely the opposite.

The remedy? There are no silver bullets, but a well diversified portfolio including defensive value stocks, uncorrelated 'absolute return' funds, and a healthy exposure to real assets, including the monetary metals, gold and silver, does not strike me as the worst way of trying to navigate what will surely be some challenging months and years to come. Merry Christmas, he said, somewhat ironically.

About Tim

Tim Price is manager of the VT Price Value Portfolio (www.pricevaluepartners.com) and author of 'Investing Through the Looking Glass: a rational guide to irrational financial markets'.



MARKETS IN FOCUS

NOVEMBER 2017

GLOBAL EQUITIES

Index	Last Month %	YTD %	Proximity to 52w High*
Dow Jones	3.8	22.4	
Hang Seng	3.3	32.2	
Nikkei 225	3.2	19.4	
S&P 500	2.8	17.7	
NASDAQ 100	1.9	30.0	
Russian Trading System	1.7	-1.4	
S&P/ASX 200	1.0	5.7	
DAX Xetra	-1.6	12.0	
FTSE 100	-2.2	2.2	
CAC 40	-2.4	9.4	
Euronext 100	-2.7	10.3	
IBEX 35	-3.0	9.2	
Bovespa	-3.4	19.2	

COMMODITIES

Commodity	Last Month %	YTD %	Proximity to 52w High*
Iron Ore	16.0	-11.8	
Cotton	6.5	0.3	
Natural Gas	5.5	-18.2	
Crude oil (Light Sweet)	5.1	8.1	
Palladium	2.8	49.5	
Coffee	2.7	-4.3	
Crude oil (Brent)	2.7	11.7	
Platinum	2.5	4.1	
Sugar (No. 11)	2.3	-23.0	
Gold	0.6	11.5	
Silver	-1.3	3.0	
Copper	-1.8	22.5	
Cocoa	-2.1	-6.2	

FOREX

Pair/Cross	Last Month %	YTD %	Proximity to 52w High*
GBP/AUD	3.1	3.3	
EUR/USD	2.1	13.1	
GBP/USD	1.8	9.1	
EUR/JPY	1.1	8.3	
EUR/CHF	0.7	8.4	
EUR/GBP	0.3	3.6	
USD/CAD	0.0	-5.5	
USD/JPY	-0.9	-4.2	
AUD/USD	-1.3	5.6	
USD/CHF	-1.4	-4.1	

CENTRAL BANKS - RATES & MEETINGS

Central Bank	Key Rate	Next	After
BOE	0.50%	Dec 14	Feb 08
ECB	0.00%	Dec 14	Jan 25
FED	1.25%	Dec 13	Jan 27
BOJ	-0.10%	Dec 21	Jan 23
SNB	-0.75%	Dec 14	Mar 22
BOC	1.00%	Dec 06	Jan 17
RBA	1.50%	Dec 05	Feb 06
RBNZ	1.75%	Feb 08	Mar 22
BOS	-0.50%	Dec 19	Feb 13
BON	0.50%	Dec 14	Jan 25

FTSE 350 TOP

Sector	Last Month %	YTD %	Proximity to 52w High*
Ocado Group PLC	23.0	37.6	
Royal Mail Group PLC	18.0	-8.1	
Computacenter PLC	13.0	34.8	
William Hill PLC	12.0	0.1	
SSP Group PLC	10.0	67.9	

FTSE 350 BOTTOM

Sector	Last Month %	YTD %	Proximity to 52w High*
Carillion PLC	-63.0	-93.0	
Electra Private Equity PLC	-50.0	-80.8	
Ultra Elect Hold PLC	-30.0	-33.0	
Dignity PLC	-29.0	-34.3	
TalkTalk Telecom G PLC	-28.0	-10.6	

FTSE 350 SECTORS TOP

Sector	Last Month %	YTD %	Proximity to 52w High*
Industrial Transportation	8.8	4.0	
Food & Drug Retailers	4.5	0.2	
Electronic & Elect Equip	4.3	32.1	
Mobile Telecom	2.8	9.4	
Oil Equip, Serv & Dist	1.6	-18.5	

FTSE 350 SECTORS BOTTOM

Sector	Last Month %	YTD %	Proximity to 52w High*
Aerospace & Defense	-9.7	3.1	
Construction & Materials	-8.6	-9.2	
Health Care Equip & Serv	-6.4	1.5	
Food Producers	-5.9	2.2	
Pharma & Biotech	-4.5	-9.6