INVESTMENT CLUB BULLETIN

MARCH 2018

AGE OF TRUMP

TAX CUT AND JOBS ACT ANALYSIS

WHAT TO LOOK FOR IN A MARKET DOWNTURN?

BULLETIN

MARCH 2018
ISSUE 1

WHAT'S INSIDE THIS ISSUE

EDITOR'S NOTE

Welcome to the first edition of the Bulletin for 2018.

It seemed like only yesterday I was finishing up my last exam for 2017. But, as saddened as I am to say this, University is back in gear. Lectures, assignments, tests and exams loom on the horizon. CVs and cover letters are hastily assembled as internships and grad roles are applied for.

As you've been cursing your disorganisation and trying to get organised, the Bulletin team have been working hard to bring you a selection of articles covering key financial events.

So what is the Bulletin, you may ask? Why am I holding a magazine with Donald Trump on the front? Is this some weird right wing newspaper?

Not at all. The Bulletin is the University of Auckland Investment Club's monthly magazine. Our aim is to cover financial and economic events, delivering interesting and informative articles. If you think about it, this is one of the very few ways you can put a photo of Donald Trump on a student magazine and be socially acceptable.

If you're a regular reader, you would have noticed the layout looks a bit different. One of UAIC's Co-Presidents, Ben Roberts, has been hard at work putting everything into a new format (he has finally realised how bad I am with graphics software). With this comes the new monthly publishing date as well. We've also introduced some new content, including a monthly wrap up.

In this edition, Felix He takes on Trump's tax bill, summarising everything you need to know about this important (or maybe not so important) piece of legislation.

Fund manager Warren Couillault kindly sat down with us to share his views on the markets and investing. He gave us some background on his career and the path that's led him to set up Hobson Wealth Partners, a wealth advisory business. It makes for interesting reading, and is the kind of interview you'll be sure to get something useful from.

Even though it's been 10 years since the last recession, David Saul's article reminds us that the only thing we know about them is that one is coming. But, there is hope. He takes a look at the different ways an astute investor can take advantage of the markets going south.

Louis Loader looks at blockchain, and gives us a run down of how it actually works, cutting through the hype and speculation that has graced the front cover of so many media establishments over the past few months.

And I try to be devil's advocate to the mainstream media position on 'Auckland's Fuel Crisis' that happened in September of last year. Trigger warning: I say favourable things about the oil industry.

So, have a read, and see if you find it interesting. Any comments/criticism, or if you want to write something for us (we're recruiting), drop us a line at **bulletins@uaic.co.nz**

Charlie Barker, Editor.

CONTRIBUTORS

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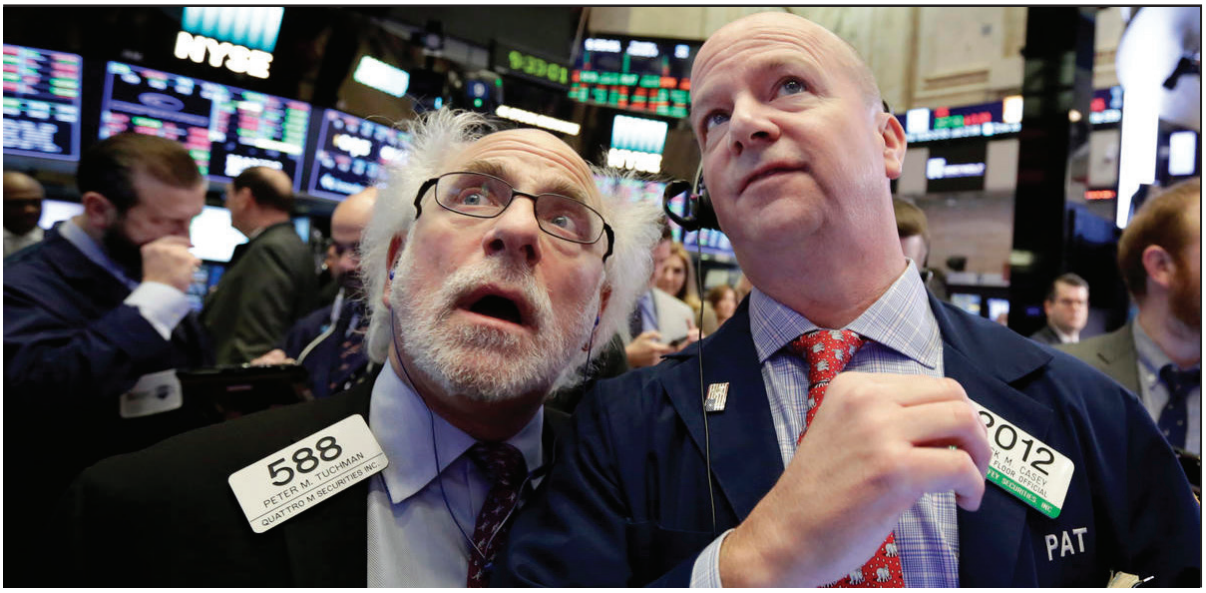
MONTHLY DEBRIEF



Dow Jones Industrial Average dipped **10.4**% from an all time high of 26,616.71 on the 26th January to 23,860.46 on the 8th February. Markets have partially recovered their losses since with the Dow gaining 5.4% as of February 16th.

5 Months: The amount of time Auckland's only electric vehicle taxi operator, One Hundred Percent Electric Company, lasted. The owner cited a lack of customers and difficulties in recharging the cars as being the main reasons, despite a ride in one of their Teslas costing the same as an Uber.

$146 bn Chipmaker Broadcom's offer for the purchase of its rival Qualcomm.If Qualcomm's board rejects the deal, it will go to their shareholders at the investor meeting on March 6. This would be the largest ever acquisition in the technology sector, but is contingent on regulatory approval.

Jerome Powell The new Chairman of the Federal Reserve. With a background in law, investment banking and private equity, he is the first person in this position since 1987 who doesn't have a PHD in Economics.

"Creating a shared future in a fractured world"

The theme of this year's World Economic Forum in Davos. 2017's theme was "responsive and responsible leadership". They seem to have given up on that (maybe the guy on our front cover) had something to do with it) and are now acknowledging the world is 'fractured'.

Indian Prime Minister, **Narendra Modhi** announced GDP growth of 7.4% at this year's World Economic Forum. Making India the fastest growing economy in 2018.

MONTHLY DEBRIEF

6.5 years since the expectation of a housing price increase was last at its lowest. The ASB Housing Confidence report stated that this was driven by falling expectations in the North Island. It's worth noting that 20% still said it was a bad time to buy, compared to 13% saying it is a good time to do so.

$1.3 billion Fletcher Building is not the only construction company that has run into problems. This is the total amount owed by Carillion, a British construction company, after it went into liquidation two weeks ago.

22% The amount bitcoin has decreased by since the beginning of this year

27 **Years**: Bill English's time in Parliament before his resignation this month. We believe he will be most remembered for seeing the economy through the GFC as Finance Minister.

17% Results reported this week show an increase in Auckland Airport's profit after tax in the six months to December 31.

10,000 The number of angry comments about the Chinese Share Market's 9.6% dip, on the American Embassy's Weibo Page. A Chinese New Year post by the embassy coincided with the plunge, bizarrely attracting the ire of thousands of investors.

90% of KFC locations in Britain were closed on Monday 18th due to a chicken shortage. Is KFC running out of chicken?

Dallas, Austin, Virginia Beach, Cincinatti: Amazon intends to role out free 2 hour delivery, from its Whole Foods Stores, to subscribers of Amazon Prime. The plan is to expand to all major cities. It offers speed and the option of free delivery, two things that have previously been holding online grocery delivery back.

MUST READ ARTICLES

Bloomberg Businessweek:

Inside North Korea's Hacker Army: Article highlighting the hundreds of programmers that North Korea has sent to other countries. Great insight into what their lives are like.

How GE Went From American Icon to Astonishing Mess: Focus piece on General Electric that investigates the problems the company is going through and looks at the possible breakup.

How Hedge Funds (Secretly) Get Their Way in Washington: Billionaires are using DCI Group to make their bets pay off—while keeping the public in the dark.

New York Times:

Federal Reserve Shackles Wells Fargo After Fraud Scandal: Article details the Federal Reserve imposing unusually harsh penalties on Wells Fargo, punishing it for years of misconduct and barring it from future growth until the bank fixes its problems.

CNBC:

The stock market correction two weeks later: How it happened, and if it can happen again
Article discussing what triggered the correction- and what signs to look for in order to predict the next one.

COMPETITION

STOCK OF THE MONTH:

You, the reader, can submit a stock that is listed on either the NZX, ASX, NYSE or NASDAQ that you believe will be the best performer over the next month.

The reader who submits the stock with the best performance will win a 12-week subscription to Bloomberg Businessweek.

Email your submissions to bulletins@uaic.co.nz. The winning reader will be contacted directly, and the winning pick will be announced in the April Edition. Submissions close 12am, 10th March. To read the complete rules, visit uaic.co.nz/bulletin.

TAX CUTS AND JOBS ACT:
A QUICK ANALYSIS

BY FELIX HE

President Trump's Tax Cuts and Jobs Act was signed into law on the 22nd December 2017, bringing significant cuts and sweeping reform. While many economists estimate that the macro effects of the tax bill will be small, the impact of its provisions on individual companies cannot be understated.

The Tax Bill

Much of the Tax Cuts and Jobs Act concerns individuals and families, however there are two provisions with significant effects on corporate America. The headlining feature of the tax plan is an enormous cut to the corporate tax rate from 35% to 21%. This means that the United States no longer has the highest corporate tax rate in the OECD, bringing it slightly under the worldwide average of 22.6%. Given more prosperous, industrialised nations often have a higher corporate tax rate, the United States now measures very favourably against comparable countries.

The other relevant side to companies concerns repatriation. The new tax bill provides a lower rate for domestic companies to repatriate cash. Companies that used to pay a 35% rate can now pay as little as 9% under the new plan. WIth American corporations having an estimated $2.6 trillion USD of profits stashed offshore, repatriation could have significant effects on investors.

Economic Impact

Economists from the Trump administration estimated that the tax plan would increase GDP by 3-5% over the coming 10 years. Further analysis by the Tax Policy Centre (an independent body), has revealed a far lower figure of 0.6% in 2018, with that growth diminishing over time. Given the $1.4 trillion in lost revenue, an extra $169 billion in extra revenue the government would receive from a larger economy is not enough for the plan to cover its own cost.

Effects of Repatriation on the USD

A common expectation is that repatriation will cause an appreciation of the US dollar. After all, with hundreds of billions in capital held overseas being brought home, it makes logical sense that repatriation would drive demand for the USD. However, it should have a minimal impact on the tax plan for two key reasons. Firstly, a large portion of cash and cash equivalents held overseas by US corporations is in US dollars or USD denominated instruments. They will not be exchanged when brought back into the US and will not impact the forex market. Secondly, the volume traded in forex markets is huge - an average of $5.1 trillion USD per day in 2016. Forex transactions for repatriation purposes will only be a drop in the bucket for such a large market. As such, American corporations should not be materially affected by exchange rate movements caused directly by the tax plan.

Verizon (NYSE: VZ)

The telecommunications sector is set to gain appreciably from the drop in corporate tax rate. Verizon has most of their workforce based in the US, and has significant investments in domestic infrastructure for their networks. It also delivers consistent profits generated from the domestic market. Due to these factors, it pays a relatively high effective tax rate. A drop to 21% will directly affect the net profit of the business.

Verizon expects the tax plan to significantly boost cash flow in 2018 from $500 million to $4 billion. The market has reacted well to this, with VZ up over 10% since mid November despite the recent correction.

Above: Lowell C. McAdam, CEO of Verizon Communications Inc.

Apple (NASDAQ: AAPL)

Apple has the largest amount of cash held overseas of any US company. 94% of its $269 billion cash and cash equivalents is held overseas. If Apple were to repatriate all 94%, it would owe over $39 billion in taxes. Given that Apple has stated they plan to make a one time $38 billion repatriation tax payment, we can infer that it intends to bring most of their cash home.

While it will face a significant one off tax bill, there are numerous benefits to repatriation. The cash can be used to pay down some of Apple's debt obligations, or even simply distributed to shareholders using share repurchases and increased dividends. Due to the nature of these benefits, it is unlikely they will have a sizeable positive impact on Apple's income statement. Unlike Verizon, the benefit of the tax plan for Apple lies in the freedom it gives for it to reorganise its capital structure and distribute to investors.

However, there are drawbacks to the tax plan. The tax on repatriated cash, al\

though reduced, is an obvious negative. A further provision in the final version of the bill raises the amount of tax Apple must pay on profits earned from patents abroad. Apple registers much of its intellectual property in low tax jurisdictions, such as Ireland. By paying substantial IP royalties to its subsidiaries in those low tax jurisdictions, Apple was able to greatly reduce its effective tax rate.

Above: Tim Cook, CEO of Apple Inc.

Summary

While its overall effect on the American economy may be quesitonable, the Tax Cuts and Jobs Act brings two key changes relevant to American corporations - a substantial cut to the corporate tax rate and a lower repatriation tax rate. How individual corporatations will be affected wil be determined by business and capital structure. Needless to say, some companies will benefit far more than others.

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REFINING NEW ZEALAND

A BURST PIPELINE AND LOOKING BEYOND WHAT THE MAINSTREAM MEDIA

BY CHARLIE BARKER

On September 14, 2017, Refining New Zealand posted this message on Facebook:

"Just to let you know that earlier this afternoon we spotted a leak of jet fuel on a section of the Refinery Auckland pipeline near Ruakaka. We've isolated and contained the leak and our crew is busy carrying out a recovery and repair operation."
Further on, it stated "an early estimate is that the pipeline will be out for the next two days". Fast forward a week and New Zealand's biggest city was in the clutches of what the media had termed 'Auckland's fuel crisis'.

Refining New Zealand is the only oil refinery in the country. It receives oil and then refines it into various oil products. Most of Refining New Zealand's revenue comes from fees charged to large oil companies for processing their oil. Distribution is carried out via the pipeline from the refinery's location in Marsden Point, near Whangarei, to Wiri in Auckland.

We live in a country that is sparsely populated, which can make infrastructure a challenge. While a pipeline between Marsden Point and Auckland is necessary, there is only one oil refinery and one pipeline. There is not enough scale to justify having a second back-up pipeline. Being a long and narrow country doesn't help. So, when a key piece of infrastructure is out this can cause problems, and once it is damaged there isn't much that can be done other than repairing it as quickly as possible.

This presented quite the challenge for Refining NZ. Everyone loves to criticise the oil industry at the best of times, but when it leads to flight cancellations and holidays being disrupted, the media well and truly ignites in a blaze of fiery indignation.

The thing is, Refining New Zealand actually did quite a good job of managing it all. What exactly about Refining New Zealand's handling of this crisis makes them worthy of praise, or at least, not as deserving of criticism?

Their communication and transparency strategies were sound.

It was originally stated that the leak would take two days to fix. A company statement on the NZX's website a few days later made it clear that the damage was worse than first thought and repairs would take longer. The media cried foul over continuous disclosure obligations not having been met.

Call me devil's advocate, but I am inclined to believe that they acted in good faith all the way through. They notified the government and made a Facebook post the same day the leak was discovered, but this still left some wondering why the NZX was only notified the following Monday.

Imagine you run an oil company. There is a leak. Even if it is minor, it is absolute common sense that you let the relevant government department know.

The share market is not the government. It would make sense to notify the NZX only if the issue is material to shareholders. While continuous disclosure is essential for obvious reasons, there is no point frightening everyone about a minor issue if it won't make a material difference.

A browse of the Refinery's Facebook Page shows multiple posts updating the public about day to day operations. It quickly becomes apparent that oil refineries are incredibly complex, and that minor issues and machinery shutdowns are common. It would be both onerous and ridiculous if each small incident prompted NZX notification. It makes more sense if there is regular dialogue with a government watchdog.

In my view, the disclosure issues were a simple underestimation of the leak. Refining New Zealand was quick to explain this, with another statement being issued to the NZX clarifying the situation when the matter became material to the company. This sort of open communication is commendable.

The way that they handled the environmental and community impact was effective

The jet fuel spilt onto a field located near a waterway. To make a long story short, the company's approach to the clean-up was effective. There is a reason why we were seeing headlines about fuel shortages rather than ones discussing an environmental disaster in Northland. This clearly highlights good training and well managed processes that allowed Refining New Zealand to respond effectively.

With a company that processes and distributes petroleum products I don't think anyone would expect anything less. However, given humans have an outstanding tendency to make mistakes, and the oil industry has historically been pretty good at creating environmental disasters, it is refreshing to see a well-managed one correct an incident quickly and effectively.

The Government Investigation

Shortly after the incident, the Northland Regional Council launched an investigation into who was responsible, with the intention of prosecuting the party at fault. After the investigative process had run its course Refining New Zealand issued a statement:

"Refining NZ has welcomed the Northland Regional Council (NRC) finding that the refinery had no causative role in the September pipeline rupture, as well as its commendation for the refinery's outstanding response. NRC concluded that the discharge was beyond the control of Refining NZ which had a suite of very extensive protective measures, checks and other precautions to prevent damage to the pipeline.

NRC also concluded Refining NZ could not reasonably have foreseen or provided against the damage." Refining New Zealand was absolved of any blame after a legal process, proving that their response to a potentially disastrous situation was underpinned by sound processes.

Whether it was leadership, quality staff training or a combination of both their response was clearly effective. Ultimately, if I was a shareholder I would be reassured at the governance and systems in place. Rather than accepting the mainstream media's criticisms of the incident, 'Auckland's fuel crisis' shows a good example of a New Zealand company doing its job well when something goes wrong.

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ABOVE: The clear fall in the share price was the market's knee jerk reaction to the announcement of the pipeline leak. In less than a week the price fell from $2.57 on September 12 to $2.39 on September 18. By September 26 it had risen back to $2.54.

AN INTERVIEW WITH WARREN COUILLAULT
CO-FOUNDER AND MANAGING DIRECTOR,
HOBSON WEALTH PARTNERS

THE FUTURE OF ADVICE

BY CHARLIE BARKER & BEN ROBERTS

After completing an honours degree at the University of Waikato, Couillault started out working in the Corporate Finance Department at Westpac in 1991. After a stint in Corporate Finance, he moved to a stockbroker and spent the mid to late nineties working in Sydney and London with UBS. This involved working with fund managers who focussed on Australia and New Zealand. In the early 2000s the opportunity to join what was then the early stages of Fisher Funds came up, and after buying into that he worked to expand Fisher Funds into one of New Zealand's largest fund management services until his departure in 2008.

After leaving Fisher Funds, Couillault took a couple of years off, which in his words "was good timing as the global markets were quite jittery post GFC". During this time, he did some property work, invested with some friends in a pub, set up a hedge fund and helped to set up a Kiwisaver scheme called Generate Kiwisaver. In 2016, the opportunity to buy into Macquarie Private Wealth NZ came along. The firm has since been rebranded as Hobson Wealth Partners, with management holding a majority stake in it.

Bulletin: We wanted to ask you about the latest stock market volatility. What are your thoughts on it and where do you think the blame lies for the turbulence that we've seen in the past few weeks?

Couillault: There's no blame, it's institutional investors taking profits when things change. It's all led out of the U.S. The recent wobbles we've seen with the GFC were led out of the US and Europe, and then we've seen some Greek exit stuff with the Euro a few years ago. And now what we're seeing is a very strong bull market having a correction or a readjustment over the past few weeks. It was stimulated by the US putting emergency monetary settings into the economy post-GFC, the quantitative easing that you would have heard about. It's been pumping liquidity in like you wouldn't believe for years. The Fed funds rate has been at emergency settings and now what we're seeing is - it probably started a year and a half ago - strong growth in that economy pushed along by the Trump administration.

This will continue to happen for the next few years. We've also started to see some thoughts about inflation coming into the U.S., which we haven't seen for about 10 years, and so the Federal interest rate setters are looking at getting out of those previous emergency settings. Usually when interest rates go up equity markets start to have a bit of a wobble, but then tend to settle down. This is all normal. One thing that is important to think of is the numbers that the markets are down by. So instead of thinking just in numbers or absolute percentages, it's quite good to think time: where's it gone back to and when were we there? And you realise that it's a few months rather than a few years. We're not unwinding gains that we only saw years ago; it's back to levels in November.

So this is completely normal. Markets are adjusting to new information, the U.S. has grown, and central policy needs to be wary of the economy being strong, and likely to stay strong. Our business here certainly didn't see hysteria, there weren't any people phoning up panicking - far from it. I think our clients are mature and responsible and have seen prices move up and down in the past and have well spread portfolios, so there's no panic. The only interesting thing is we haven't seen little wobbles like this in the past few years. But it's completely normal.

> Instead of thinking just in numbers or absolute percentages, it's quite good to think time: where's it gone back to and when were we there?
>
> **-Warren Couillault**

Following on from that question regarding interest rates, what sort of role do you think the rising interest rates will play in the New Zealand market this year?

In New Zealand, we've gone through a funny phase: we have a change of government, and declining business confidence directly as a result of the change in government, so there's some uncertainty around policy. The market is not too sure what the fiscal settings for the new government will be - will they pump money into the economy? Will they transfer money around? I think we'll see relatively flat interest rates for the majority of the year until we see what the fiscal impact and the taxation impact of those policies will be. We'll probably get ok growth in the economy, but the immigration factor will be determinative of whether it's strong growth or modest growth.

With the large inflows of money into passive products such as ETFs, do you believe these types of products are the future of investing?

Yes and no. There is always going to be a place for passive investing, especially in the current market climate where there is a greater focus on cost. But, there will also always be a component for active investing, stock selection, asset allocation with the relative size of the two pools probably changing over many years. Over the last few years passive index investing has been driven by low yields and a chase for return, and when you get low yields, you need to focus on getting costs down which has been a big priority in our active and passive business. I think that in the next period when it is looking like we are getting closer to normal interest rates, we may see less emphasis on low-cost passive products.

Are cryptocurrencies a viable financial product or just another volatility risk?

I don't see them as a viable financial product. I suspect that this will be a thing that will come and grab everyone's attention and in a few years' time, we will look back and ask 'what were we thinking?'. Currency needs to be a store of value, acceptable everywhere and central banks need to have some level of control. Until something comes along that lets the US Central Bank determine its currency levels, crypto and other non-central currencies just won't get there. People have said that cryptocurrencies can get rid of the US dollar's dominance in trade, but from my perspective, I don't see this happening.

What other trends are you monitoring as we move further into 2018?

We are looking closely at robo-advice. From an industry point of view and from our business's point of view, the increasingly large focus on cost coupled with compliance and regulation costs going up means it is becoming increasingly expensive to get financial advice to smaller clients. If you've got several million dollars to invest, you've got choice on who to talk to and can afford to pay for the advice and fees. If you don't have those kind of resources to spend on advice, we are busy working out ways to get advice from our team with a low cost of delivery to people with hundreds of thousands of dollars. This sort of channel does not really exist in New Zealand as previously regulation had prevented it. So, we definitely see value in pursuing this sort of technology.

Do you think algorithmic trading poses a threat to the market here in NZ?

NXZ as a regulator has a part to play because it's legislated to maintain orderly markets. If people come along and set up algorithmic trading and programmed trading, NXZ will welcome that as long as it maintains orderly markets. We will see more of these things, especially in the AI space as people find more effective ways to get transactions through the market.

Is it a challenge to provide value in the financial advice space with new technology and people being able to do their own research on the internet?

There is one hundred percent a place for professional advice, however nowadays you can pick up a phone or go on an online trading platform that gives you access to securities all around the world and is also cost-effective. You might not need to speak to a human anymore, which is why we are looking at how to get our advice to the younger generation who are more familiar with these online channels. We believe that what is really important is the value of advice especially with KiwiSaver. In the next 5 to 7 years a lot of people will have a higher balance and will start to ask questions about their investments and look at what they are invested in. They might start asking "how should I manage my investments?" rather than just say "I've got a KiwiSaver account" which is the default idea is right now. Say you are invested in a S&P 500 ETF, if you aren't getting advice no one's going to tell you to sell out of it. If you are just following indices you are really missing out on some of the other opportunities that advice would be able to give you. It's one thing to be invested in a product, and it's another thing to actually know what to do when you're in an ETF. On that topic of the changing nature of KiwiSaver, I think that will see the growth of products and especially retirement products that adjust your holdings on a lifetime cycle basis, meaning your investments will change according to what stage of life you're in.

What tips would you give to any student looking at investing for the first time?

The best advice I would give is to do it yourself by buying some shares in a company that you have a bit of knowledge about. When I was a fund manager we would look at a stock, but instead of looking at it from the outside we actually bought some, and that gave far more access to information and made us look at it more closely. So, my advice is to put a few toes in the water, have a look at the 27 Smartshare ETF's - that's a great place to start - and read. There's a book called Value Investing by Benjamin Graham. This is the benchmark of investment reading, but even just reading the business magazines, National Business Review and the business section of the newspaper would give you a lot of information that is helpful to know.

Thanks for your insights, Warren.

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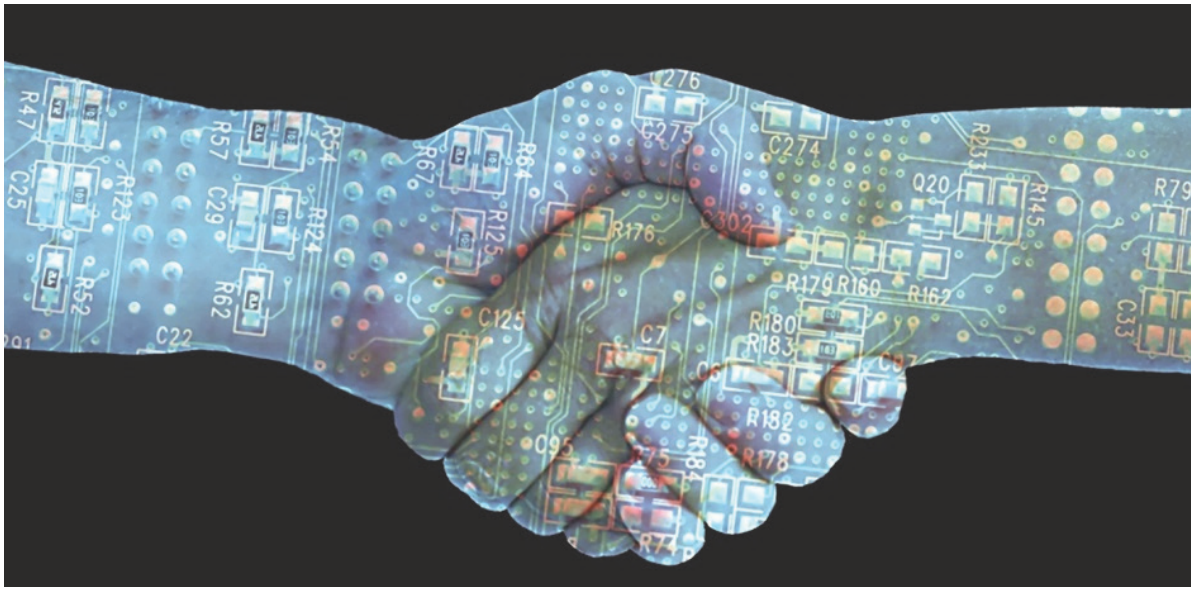
Hobson Wealth Partners is one of NZ's leading private wealth advising groups. It's team of 30 advisers, in offices in Auckland, Wellington and Christchurch, advise on over $2 billion of client assets.

BITCOIN, NOT OUR FUTURE?

DIFFERENT USES FOR BLOCKCHAIN TECHNOLOGY

BY LOUIS LOADER

There's no denying that in this ever explosive environment of disruptive digital technologies, Blockchain is about as frothy as they come. Long Island Iced Tea Corp. knew that when the unprofitable New York-based company rebranded itself 'Long Blockchain Corp'. resulting in their shares rising as much as 289%. It's the foamy head to a perfectly poured beer, which is ironic because it's all the young professionals want to talk about after a few too many. But what is this mysterious technology that powers their precious bitcoin? What problems does it solve? And how much of a role could this technology play in our day to day life?



Blockchain

Simply put, Blockchain is a distributed ledger that is open to everyone.

It has benefits including security, decentralisation, and the simplification of current paradigms (we will touch on this later).

A typical block contains:

•Data: e.g. for bitcoin it stores the sender, receiver and amount of coins.

•A 'hash': this is a verification code that uniquely identifies data, it is calculated at the time of the blocks creation and is essentially the blocks fingerprint.

•The 'hash' of the previous block in the chain.

Now considerer this block in the form (hash of previous block, hash of current block)

Our chain looks like this:

(a,b) - (b,c) - (c,d) - (d,e)

Now I tamper with the data inside the third block:

(a,b) - (b,c) - (c,X) - (d,e)

A new hash is calculated to identify the new data, but because of the unique nature of hashes, the hash is different. Now it does not follow through to the next block. The chain has been disrupted and it is obvious where this has taken place.

In order to get away with it we would need to calculate a lot of hashes very quickly to 'trick the chain'. However, as Donald Trump would put it, 'Computers are fast. So fast. Fast enough to calculate billions and billions of new hashes. Covfefe'. That's why the chain uses proof of work to slow down the process and verify it at the same time. Individual computers essentially fight to calculate the hash for a small reward and it is then verified by the other computers on the peer-to-peer network.

This is the crux of the system and gives it the security through decentralisation. Now to tamper with the block, you would need to calculate the hashes on over half of the computers in the whole independent network.

Using this technology for the cryptocurrencies is just the tip of the iceberg.

Medicalchain

The key issue here is that different organisations hold fragmented information about patients. There is a lack of communication between the record keeping systems this is partly due to privacy laws, which vary depending on country but it is also from technological limitations. Using Medicalchain, a smart contract is launched to give time-limited access to a patient's electronic health record.

A good example of this is when I first came to uni here in Auckland. I felt sick and by the time my request to transfer my medical information from my old GP to my now-new GP, I was better. A miracle. But using Medicalchain would have allowed me to see the Doctor when I actually needed it more. Doctor when I actually needed it more.

And this is done using Blockchain technology.

Your medical records are kept safe and secure. The blockchain layer of medical chain hosts limited non-personal information. This information acts as a pointer, directing the system to your encrypted health record. Encrypted records are held within hospitals, universities and non-profit organisations regulated to handle sensitive data. You essentially provide the doctor with the key to access this data.

Medicalchain will also leverage another advantage of blockchain security by commercialising user medical records on their health data marketplace. Users will be able to voluntarily sell their data to parties who are interested in utilising it for alternative purposes such as medical research. The attractiveness to users is that with their medical information protected on the platform, they can profit from the high demand for access to such data by research institutions and companies. Medicalchain claims data can be anonymised before it is sold to interested entities, eliminating any chance of misuse.

This aspect is a segway into the MedToken aspect of Medicalchain. If you do want to learn more about it, there's plenty of information online (see medicalchain.com).

It's clear that there are huge advantages through efficiencies associated with Medicalchain- and this is just one application. This left me wondering more about the potential scale of Blockchain and in what timeframe we could expect to see this implemented (if at all). So I sat down with Steven Male –Founder and CEO of Inbound NZ – and we discussed these 'big picture' issues.

1) Enterprise Level Scalability

Today's centralized databases can scale almost limitlessly as cloud computing and virtualization become commonplace. For many blockchain platforms, scaling remains a daunting challenge.

While proof of work adds security and verifiability to the technology it means that blockchain-based transactions can only complete when all parties update their respective ledgers – a process that might take hours. To put this into perspective, paypal manages 193 transactions per second and visa manages 1667 transactions per second, Ethereum does only 20 transactions per second while bitcoin manages a whopping 7 transactions per second. The obvious solution is to shift towards a 'proof of stake' system.

Just to clarify,
• Proof of work: All computers in the network need to calculate and the majority need to agree.
• Proof of stake: A fixed quantity need to calculate and agree.

This speeds things up off the bat, but draws from the main advantage of having the system in the first place (security/verification).

2) Universal Adoption

The promise of blockchain largely depends upon enough parties using the same implementation of the technology. If not enough people use it, it loses all practical value. Imagine going on Instagram to post a photo that no one will see. Why not just store it in your camera roll?

To gain some more traction, the use of Blockchain needs to jump out of the fairy-tale realm and into real life. Right now ICO's (Initial Coin Offerings) are highly volatile. And to be honest, I usually just read them for entertainment value. The ideas are awesome in theory and show endless potential. To see some success stories would give the ICO market more teeth. "We need someone to emerge who has had a successful ICO who can show people they are a real business that knows what they are doing."

Another way to aid the adoption of such technology is to keep it simple. If I am told how a company works to better me (the user) in a simple way, I am more likely to go with the company. This can be better described using Warren Buffett's value investing concept: "find an outstanding company at a sensible price" – How can you tell it's outstanding if you don't understand what it is?

Medicalchain in my opinion has a great chance of making it out of the gates, it services an industry that has a should be constantly seeking to adapt and develop. Efficiencies in medicine literally saves lives. It has realistic targets and even I understood how they are looking to meet those targets.

Overall, I am hopeful yet sceptical. This technology is exciting as it could potentially reshape businesses everywhere. But the costs associated with implementing this very volatile technology to the level where it becomes useful are massive.

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MARKET DOWNTURN

INVESTING IN A RECESSION

BY DAVID SAUL

A recession, is defined as a "significant decline in activity across the economy, lasting longer than a few months." Essentially, life becomes about needs rather than wants. What does this mean for the markets?

There are three key strategies to investing in a recession.

Firstly, one can choose to invest in safe securities which are less affected by the recession (i.e. less volatile), or secondly, one can choose to invest in securities which become more demanded in a recession, or thirdly, one can choose to buy 'on discount', finding securities which have been hit hard and are now undervalued, almost alike to walking into JB Hi-Fi to find that pair of Bose noise-cancelling headphones on your wish list on sale for half price. The first strategy, surprisingly, applies well to stocks in certain sectors and industries. History has shown that the consumer staples, healthcare and utilities sectors tend to be largely unaffected during recessions due to their 'need'-like nature. This includes products such as electricity, water, food, medical services and medical equipment. When incomes fall and times are tough, consumers spend on the basics and often switch their spending choices to cheaper brands and retailers, something that has been called the 'trade-down effect'.

In fact, Walmart Inc. (NYSE: WMT) rose about 13% in 2008, the heart of the recession, due to higher demand for inexpensive food and clothes. When picking stocks in these industries, one can do well to pick well established stocks and/or Dividend Aristocrats (i.e. companies which have increased dividends for at least 25 years in a row), as they have a history of performing well over a long period of time. Companies with these characteristics in these sectors tend to be the most stable and can provide a satisfactory passive income if the investment is large enough.

The second strategy applies well to scarce but useful items, namely precious metals. Gold is traditionally seen as the standard form of hedging against the market, due to its function as a store of value. In fact, during the 2008 recession, gold rose in value by about 24%. Silver, interestingly enough, has not performed well during recessions. Due to its high industrial use, it becomes less demanded during periods of lower output and the price therefore falls.

While gold eclipses silver as a better store of value and investment during a period of poor output, it has risk in the sense that it will be sold to finance investments in stocks as the market rebounds, so a sense of 'timing the market' is needed to make this method worthwhile.

The third strategy requires a strong understanding of fundamental analysis. By using relevant ratios and performing Discounted Cash Flow ("DCF") analyses, companies can be screened and found to be undervalued, often

massively in a recession.

The problem is that in times of recession, one never knows when the market has hit rock bottom, so investing in undervalued companies is done with a long-term time frame in mind, where short-term losses can be expected. What's important when looking to the future is to think "Will this company still be around in five to ten years' time?" Many companies in volatile industries struggle to maintain their revenue and cash flow balance during a recession and in turn need to shut down.

So, while some companies may appear undervalued, they may not always be the bargain they appear to be, so an element of caution needs to be applied when seeking these investments. Companies which are often undervalued in recessionary times are those which sell wants rather than needs, extras and luxuries rather than core goods, and inferior products. Technology companies, especially with hardware products, can be expected to fall significantly in value due to a lack of need to upgrade home devices when times are tough. The same can be said for furnishers and upmarket clothing retailers. If companies in these 'want' industries take a hit but appear to be strong enough to recover and regain customers and previous revenues, they may be prime investments.

Looking forward in 2018, with the threat of a recession always looming, my picks for recession-proof stocks include:

McDonald's (NYSE: MCD)
Food is a consumer staple and cheap food becomes highly desired in a recession when incomes are low. McDonald's has developed its menu to include healthier items such as salads and fruit and so is more attractive to consumers than 10 years ago, when the stock outperformed the S&P 500 (41.2% vs -20.0%) in the middle of the recession. Due to being a household name and global brand, it is unlikely that McDonald's will be significantly affected by a recession. The 2.56% dividend yield is generous and has been increased over many years, providing a buffer if there were to be any small capital losses.

Gilead Sciences (NASDAQ: GILD)
Gilead Sciences is a major player in providing treatments for HIV/AIDS worldwide and has a history of maintaining a strong financial position and high free cash flow. Since starting to issue dividends in 2015, currently at 2.83%, Gilead Sciences has cemented is place as a likely recession-proof stock. GILD has also been developing treatment for other illnesses and looks to broaden their coverage of the market, making it relatively safer than other pharmaceutical companies with only one main driving product.

Walmart (NYSE: WMT)
Walmart has a unique opportunity during a recession to steal customers from their major competitors, such as Target and Costco. By offering some of the lowest prices and a huge range of goods, including food, clothes and healthcare goods, it becomes a one-stop-shop for those on a budget and a temporary lifestyle change for many. WMT currently offers a 1.95% dividend which is fair for its industry.

Looking back at the three methods, it is clear that each has its place at a different stage in the business cycle. In an ideal situation, investment in gold should be done as a recession starts and the markets begin to fall, consumer staples, healthcare and utility stocks with high market capitalisation and large dividends should be bought and held for the duration of the recession, and undervalued stocks in other industries should be bought as the economy begins to recover and the markets begin to rise, while gold investments should then start to be sold off. Unfortunately, timing the market is very hard to do, even for advanced investors. However, if performed effectively, investing this way in a recession can have large payoffs.

Invest wisely and make the most of the next recession.