UNIVERSITY OF AUCKLAND INVESTMENT CLUB

INVESTMENT BULLETIN

STUDENT WRITERS - STUDENT OPINIONS

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Contents

An update from the fund

A RUNDOWN OF THIS WEEKS PITCHES WRITTEN BY OUR INVESTMENT COMMITTEE ANALYSTS

AFT PHARMACEUTICALS

Pitched by Flynn Davies, Junior Equity Analyst

Spurred on by its blazing trail founder, AFT Pharmaceuticals (NZX: AFT) continues to redefine the NZ pharmaceutical industry. Listed on the NZX in 2017, AFT is a relatively new player to the Australasian pharmaceutical sector. AFT provides a diverse product offering of 130 over the counter and prescription drugs and also specialises in the underfunded Orphan medication sector. With substantial competitive advantages in R&D and licencing distributions, AFT is poised to benefit from considerable growth in the Southeast Asian pharmaceutical markets. However, the threat from established competitors in the generic drug business presents valid risks to AFT's operations. The Investment Committee moves in favour to pass AFT to the valuation stage with a final vote of 9/14; Andrew Meng, Daniel Vaz, Donovan Rea and Flynn Davies.

"Improving people's health through world-class research and development" - Flynn Davies, Junior Equity Analyst

OROCOBRE

Pitched by Katy Qiu, Junior Equity Analyst:

Orocobre (ASX:ORE) is a dynamic Australian lithium chemical and industrial minerals manufacturer and an established producer of boron. Their core asset is the Salar De Olaroz lithium facility, the first large scale de novo brine based lithium chemicals facility to come online in more than 20 years located in northern Argentina. Olaroz is unique as the only brine based operation in the world with an integrated purification circuit. However the declination of lithium price within the lithium industry has been a worrying factor for Orocobre. The Investment Committee vote has voted against passing Orocobre, with the final vote being 3/13.

"Producing high grade, high value lithium for global battery markets" - Katy Qiu, Junior Equity Analyst

Introduction to insider trading

PART 3 WRITTEN BY CHRISTOPHER WONG

ARGUMENTS AGAINST INSIDER TRADING

USING NON-PUBLIC INFORMATION TO INFORM A TRADE CAN HAVE HARMFUL RAMIFICATIONS. AS DEFINED IN THE ARTICLE PREVIOUSLY, NOT ALL INSIDER TRADING IS DEEMED ILLEGAL. HOWEVER, FOR THIS ISSUE, WE WILL ONLY FOCUS ON ILLEGAL INSIDER TRADING. IN THE FOLLOWING, 3 KEY REASONS WILL BE DETAILED ON WHY INSIDER TRADING CAN BE HARMFUL TO FIDUCIARY DUTY, MARKET INTEGRITY, AND SHAREHOLDER VALUE.

FIDUCIARY DUTY

Firstly, it may breach a company's fiduciary duty to shareholders. The term 'fiduciary duty' can be roughly explained as the obligation for one party to act within the best interests of another. It follows this basic logic:

1. Corporate insiders have fiduciary duties to shareholders.

2. To fulfil their fiduciary duty, a corporate insider must disclose all relevant information to their principal [in this scenario, the shareholder(s)] which may affect the share price.

3. Failure to disclose pertinent information indicates deception.

4. Illegal insider trading breaches the fiduciary duty, thus, is wrong.

MARKET INTEGRITY

Insider trading can undermine the integrity of the market. If a handful of investors decide to trade on information that is not made public, the trust of the markets will be harmed which will consequently stymie investor engagement in the markets. Insider information ultimately allows an individual to remove the risk that another investor without the same non-public information would unknowingly assume if they were to engage in the markets. This is for the reason that those with non-public will be able to utilise said information to mitigate potential losses or use it to gain profits is just postponing the inevitable, unjustly. Ultimately, this may potentially cause investors to shy away from the markets. In theory, insider trading would begin to cancel itself.

VALUE

Lastly, insider trading may unfairly strip investors of the full value of their security. To illustrate, the packaging company Omcor PLC. made record profits after its division for medical packaging manufacturing was strengthened by the pandemic. It plans to announce this information in a fortnight. This creates the scenario which can advantage/disadvantage different investors. Investor-A [with undisclosed insider information] can accumulate their position beforehand and benefit from the increase in the share price. On the other hand, this situation is also a double-edged sword. Investor-B [without knowledge of the non-public information] can sell his/her position before the announcement. Essentially, investor-B is robbed of the full value of their security.

In sum, using non-public information to inform a trade can have adverse effects. Focusing on illegal insider trading, 3 main points were detailed on why insider trading can be harmful. Firstly, engaging in insider trading breaches on fiduciary duty. Moreover, it may act to undermine market integrity. Lastly, it can act to stop investors of the full value of their shares.

Why is the market dislocating from the economy?

WRITTEN BY JERRY REN

HOW HAS THE COVID-19 PANDEMIC AFFECTED THE ECONOMY? THE ANSWER IS OBVIOUS. MANY MAJOR ECONOMIES AROUND THE GLOBE HAVE BEEN DISRUPTED AND MANY ECONOMIC ACTIVITIES HAVE BEEN PUT ON HOLD. THE UNEMPLOYMENT RATE HAS BEEN CLIMBING IN MOST COUNTRIES AND THE GDP GROWTH RATES ARE SUB-ZERO. THERE IS A PRETTY GOOD CHANCE THAT WE ARE GOING INTO A RECESSION IN 2021.

Looking at New Zealand, 6% of our GDP comes from tourism and half of those are international tourism (stats from MBIE), 8.4% of employment in NZ are tourism-related. The estimated impact on GDP due to travel restrictions, according to ANZ Research, is going to be around 2.5% to 5%.

To mitigate the hits, central banks have implemented various kind of stimulus package. The RBNZ plans to buy up to NZD$100 billion worth of government bonds by June 2020 through its Large Scale Asset Purchases programme and has stated that it is possible to implement untraditional monetary tools such as a negative interest rate to further stimulate the economy. Our fiscal policy is also very aggressive, the new budget is 10 times larger than non-COVID years and the government debt has gone up to 54% of the GDP. Programmes such as the wage subsidy have temporarily slowed down the increase in the unemployment rate. But overall, the road ahead for the New Zealand economy and the world economy is filled with challenges.

On the other hand, the financial markets paint a completely different picture. Both the S&P500 and the NZX50 indexes are higher now (2020 Oct) compared to December 2019. According to Andrew Bascand, the managing director at Harbour Asset Management, the market is forward-looking and has priced the recovery in earnings into the price. The decrease in long-term interest rate also helps maintain the valuation of equities (The valuation is based on the present value of future cash flows, and the discount rate used is often the equity risk premium, which is bond interest rate+ market risk premium. Hence lower interest rate leads to a lower discount rate and higher present value). Also, countries like China, which has effectively controlled the spread of the virus, have shown evidence of a "V-shape" recovery in their economy, which provides confidence to the investors.

Another reason why the financial markets seem to be recovering much faster than the real economy is that the equity market often serves as a leading indicator. Like previously mentioned, stock prices reflect the expectation of the investors, and this explains why the stock market sometime moves differently from the real economy and the employment rate (which is a lagging indicator).

Lastly, there is a different school of thought on this issue. Some people believe that the aggressive monetary policies being implemented by the central banks have artificially created this bull market. Almost every central bank in the world right now is conducting quantitative easing, which increases the money supply in the market. However, instead of flowing to the real economy as intended, this excess money supply is entering the stock market and pushing up the stock prices. The large increase in stock prices without the support of an improvement in the real economy is also known as a "bubble", which would lead to many problems once it bursts.

Overall, there are many reasons why the stock market performs differently from the real economy. And this is why we should not trade simply based on the news available to the public because most of the time it is already reflected in the current price. We must learn how to use the available information to form more insightful analysis and judgement.

When do you stop being rational?

WRITTEN BY KYLE QUINDO

WHEN WE START EARNING MONEY, WE'RE DRILLED TO DO TWO THINGS. SAVE, AND INVEST. WE ASSOCIATE "SPENDING" MONEY ON THINGS WE DO NOT GENERALLY NEED AS NOT RESPONSIBLE. HOWEVER, WHEN DO WE STOP THAT CYCLE OF SAVING AND INVESTING?

THERE'S A SAYING THAT MONEY DOESN'T MAKE YOU HAPPY. I BELIEVE IT DOES, TO A CERTAIN EXTENT. THAT "EXTENT" IS WHAT YOU HAVE TO QUANTIFY YOURSELF. THE BEST DESCRIPTION I HAVE IS TO DO WITH AN EXAMPLE RELATED TO ME.

I've always wanted a BMW M5. Ever since I was 12, I really liked the BMW F10 M5. 560 horsepower, in a five series – the basic recipe for a sleeper. I always said to myself, "whenever I'm able to buy an M5 – I will buy one."

However, being rational and the responsible investor I am, I take the hard-earned money I've saved up and invested it as a deposit into a rental house, earning $200 a week profit. I have a full-time job, therefore theoretically, I could use that money to finance an M5, and I would essentially have a "free" M5 - or an M5 without drastically changing my weekly financial position. Or, I could save that $200 every week for two years. Combined with the appreciation of the house, I should be able to buy my second investment property! Say that's another $300 profit – now I have $500 a week profit. Now I can afford an M5 with ease. But... now I'm getting close to being able to afford an Aston Martin. Maybe on more investment houses?

Another two years go by. Equity from two rental houses + my weekly $500 savings, and now I am able to buy an M5 with ease probably - or I could finance a second hand, Aston Martin. But then my problem is the same as the M5 and the first house. See the problem?

I think we as humans are always going to yearn for something more. It is hard to always be rational. However, it's responsible to be rational. The question becomes, when do you stop being rational? When should you be irrational?

I can't answer for everyone. I do

believe everyone should be responsible with their money. But it's essential to realise why you're responsible for that money. We're not all Drake – We can't take our money to the grave. Once you realize "why" you're saving and achieve that "why," I think it's time to release some irrationality in you slowly.

Everyone's life will be different. Maybe your wallet is ancient, and you want a new wallet. I'm not talking about those financial decisions. I'm talking about the financial decisions that you contemplate more than a couple of days – you know the ones.

If you're a fan of cars, when you turn 70 with bad knees, you won't ever say to yourself, "damn, I don't regret driving that Corolla for my whole life." Or if you love to travel, you'll never say to yourself, "Man, I'm glad I visited my local beach instead of going to Greece" You get the drift?

What happened to the NZX?

WRITTEN BY TIMOTHY CROSS

ON AUGUST 26, THE NEW ZEALAND STOCK EXCHANGE (NZX), AS WELL AS MANY OTHER NOTABLE NEW ZEALAND COMPANIES SUCH AS STUFF, RADIO NEW ZEALAND, WESTPAC AND MT RUAPEHU WERE ALL SUBJECT TO A SERIES OF DDOS (DISTRIBUTED DENIAL OF SERVICE) ATTACKS. THE ATTACK ON THE NZX LASTED FOR FIVE CONSECUTIVE DAYS. THIS IS NOT THE FIRST TIME THAT A NEW ZEALAND COMPANY HAS BEEN SUBJECTED TO CYBER ATTACKS BUT THE COMPLEXITY AND SCALE HAVE REACHED NEW HEIGHTS. THE ATTACK ON THE NZX WAS BELIEVED TO HAVE REACHED A SPEED AT MORE THAN 1 TERABIT PER SECOND OF SPURIOUS DATA. THIS WOULD MAKE IT ONE OF THE LARGEST-EVER REPORTED DDOS ATTACKS IN THE WORLD.

WHAT IS A DDOS ATTACK?

To understand a DDoS attack, I interviewed a lecturer and Doctor of Computer Science at the University of Auckland, Dr Rizwan Ashgar. He was able to provide me with some wonderful information into what a DDoS attack is. Dr Ashgar told me to think of the internet as a road and there is traffic on this road and that if there is too much traffic, the server will slow down to the point that it will be unable to process any incoming traffic. A DDoS occurs when a hacking organisation sends a request from a bunch of computers they have hacked to the server, in the case NZX. To link this back to the road analogy, all of a sudden there is a huge amount of “zombie cars” driving along this road and now there is a traffic jam and no other inputs, such as incoming traffic can be processed. This forces the site to crash and is what has happened to the NZX on multiple occasions over the last few weeks. Dr Ashgar explained to me that the difference between a DDoS and a DoS attack is that a DDoS attack is a denial of service sent from multiple locations whereas a DoS attack is a denial of service sent from one location.

Motive

To gain a more comprehensive idea of the motives and what happened with the hacking, I got in contact with Logan Carmichael. Logan is a recent graduate from the University of Auckland who has completed her Masters in conflict and terrorism studies. In my interview with Logan, she discussed what potential motives may have been for these attacks. In short, she replied that New Zealand has very little experience with cyberattacks of this magnitude and that it would be a lengthy process until the information was made available to the public. Logan referred to the NotPetya attacks in 2017 as an

example and it took eight months before several governments announced attribution for the attacks. In the Dark Knight, Michael Caines', Alfred, tells the story of a jewel thief in Burma. He tells the audience that "Some men are not looking for anything logical like money. Some men just want to watch the world burn." I think this quote most likely summarises the criminal's motives. I also asked Dr Ashgar about why he thought these attacks had taken place against the NZX and he replied: "Because they can."

Prosecution

I was then interested if the criminals responsible for these attacks ever be bought to justice. Logan replied that she was doubtful that charges will ever be laid. She explained that there is very limited precedent for the prosecution of cybercriminals, especially when you are dealing with international actors such as what is believed to have occurred with the NZX attacks. Even if these criminals could be tracked down, there is a lot of ambiguity in internal laws of cybersecurity and different countries have different ideas of what responses should be taken in cases of cyber incursions.

Measures to protect against future attacks

I had the privilege of interning at MAGIQ software as a software intern over the winter break. Whilst there, I met software developer, Aaron Flaszynski. Aaron has a plethora of experience developing software for both governments, local government as well a large range of private sector clients. I asked Aaron what the NZX could have done to prevent or stop this attack. Aaron suggested that the NZX appeared very ill-prepared for such an attack. There appeared to have been no plan for how they could have reacted and they had not done checks to work out potential vulnerabilities. Other measures Aaron suggested was installing protection tools/services. This could include employing a CDM (Customer Data Management). An example of this would be a shift to cloud computing and have servers spread around. I learnt in my Information Systems class this year that the University of Auckland's Canvas servers is hosted in Sydney. I found this to be an interesting practical example of what the University is doing to prevent cyber attacks. Another possibility Aaron suggested is closing unnecessary ports. I was very confused as to why the NZX website was receiving Denial of Service requests. If the NZX had followed these procedures, they would have almost certainly fared better than how they did.

Implications on the market

The impact of these attacks on the stock market was negligible. Investors could not trade whilst the servers were shut down but as soon as the market reopened, investors continued as if nothing had happened. The NZX ended the week at close to record highs and these actions did not deter investors.

I would like to acknowledge and thank Dr Rizwan Ashgar, Logan Carmichael and Aaron Flaszynski for their time.

How to properly think about investment risk

WRITTEN BY SEAN SPIRES

"RISK COMES FROM NOT KNOWING WHAT YOU'RE DOING." WARREN BUFFETT

IT SHOULD COME AS NO SURPRISE TO ANYBODY THAT INVESTMENT CARRIES RISK. YOU ARE LAYING OUT MONEY TODAY WITH THE HOPE THAT YOU WILL GET MORE MONEY BACK IN THE FUTURE. IF THAT ISN'T TAKING A RISK, THEN I DON'T KNOW WHAT IS. IN FACT, IF YOU MAKE ANY FORM OF INVESTMENT WITHOUT THINKING ABOUT THE RISK THAT IT ENTAILS, I'LL BE THE FIRST PERSON TO NOMINATE YOU FOR A VICTORIA CROSS.

So, it's pretty clear that investment postulates risk, the obvious question that arises is how do we manage this risk? Well, before we can do this, we must first determine how to define risk, and if possible, how to measure it. The good news is, defining risk, at least from a practitioner's point of view (someone who actually invests money), is easy. The hard part? Measuring it.

Ah, but if you're a student of finance you might be thinking, "Hey what's this guy talking about, my finance professor taught me that the riskiness of an asset is measured by its beta". Well, your finance professor is dead wrong. If you're unfamiliar with Beta, it's a concept that academics have come up that 'apparently' measures risk. The theory goes that the measure of how an individual asset moves when the overall stock market increases or decreases (aka its 'Beta'), somehow measures risk. Now if you're thinking something along the lines of "that's ridiculous", great! If not, well don't worry, keep reading young padawan.

Right, so now that we know how academics measure risk, let's go to the fun part and start to pick apart this ridiculous concept. Firstly, the calculation of beta makes no distinction between up-side and down-side volatility. So somehow, a stock that moves up significantly over the course of a year is riskier than a stock that moves down slightly over the same period. Now it may be true that the stock that moved up significantly is indeed riskier, but there is no guarantee of this. Secondly, the calculation of an asset's beta is done using past price movements. The first thing everyone learns in investment is that the past is no guarantee of the future (academics somehow forget this). How much an asset's price moves up or down in the past tells you nothing about the future. So why bother using it to determine risk? According to the academics, a stock that has fallen from $30 to $10 per share is considered riskier than a stock that has fallen from $12 to $10 in the same period. Although both stocks can now be

purchased for $10, the stock which has fallen the farthest, and thus, the one that is now priced at the biggest discount to its recent high price, is still considered the riskier of the two. This may be true, but it could be that most of the stock's downside risk has been eliminated by the huge price drop. Beta does nothing to help you determine which stock is riskier.

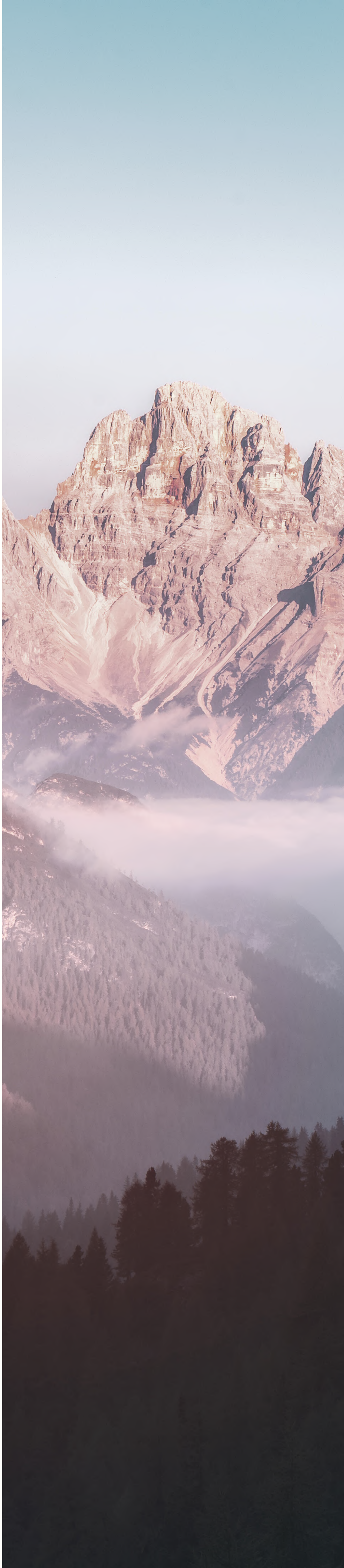
As it's now clear that the Beta of a stock offers an investor no insight into risk taken, let's talk about how you should actually think about risk. Warren Buffet, alongside many other successful investors, have agreed that there are two primary risks investors should seek to avoid at all costs. These are:

1. The risk of permanent capital impairment.

2. The risk of inadequate return on capital.

If you manage these two factors, by and large, you will manage most investment risk. But make no mistake, while this is simple in theory, it is hard to do in practice. With the risk of permanent capital impairment, this usually arises because you've either paid too much for a stock or business conditions have taken a turn for the worse. It should be noted, permanent capital impairment is not measured by the price you paid for the stock minus the current market price. Instead, it is measured as the value of the stock when you paid for it minus the current value of the stock. Remember, price and value are not the same things. The trick with mitigating the risk of a permanent capital impairment is to determine the value of a stock (this isn't the market price!), ensure you are somewhat confident in this value, and most importantly, buy the stock a large discount from your estimation of value. Mitigating the risk of an inadequate return on capital is tricky, especially if you're buying distressed companies that aren't doing well financially. There are a multitude of ways of going about this, if you're a Peter Lynch fan, perhaps it could be ensuring you're buying companies with good growth prospects. While it's hard for me to list out all the different ways to manage this type of risk, my main suggestion would simply be to once again ensure you're not paying too much for the stock.

Now you might have noticed something interesting between the risk management methods of the practitioners compared to the academics. Can't see what it is? The type of risk the practitioners manage cannot be easily quantifiable (if at all). And please do not feel worried at all. Investing is an art, not a science. Anyone that tries to sell you rigid mathematical methods to calculate risk is doing you a disservice. While this might sound daunting, no one ever said this was easy. But if you properly think and mitigate risk like practitioners instead of academics, you'll probably be fine.



MYOB's column

SALES AND MARKETING FOR SOLE TRADERS AND NEW BUSINESSES

If, like Ben Paul, you've recently started a new business, you'll be hungry for sales. But have you created a practical sales and marketing strategy to help get the ball rolling?

f you're in the process of starting a business, or still in the planning phase, there's plenty to do beyond writing a business plan.

Hopefully by now you'll have thought about how much you need to charge for your products and services. You may have carried out some research to find out what competitors are doing and what they're charging.

You may even have considered what your target market is. But, if you dedicated time to developing your sales and marketing strategy, now's the time.

Every business owner will at some stage need to pause, reflect, then spend some time putting an actionable sales and marketing plan in place.

Read the four steps identified in the full article on the MYOB Blog here.

THE BD LADDER

Ben Paul, The BD Ladder

Ben founded The BD Ladder to ensure that all B2B service providers can access experienced BD, Sales and Marketing advice to help them grow their own businesses. He has over 20 years' experience in in marketing, business development and bid management, having worked with several leading services and professional services firms.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