UNIVERSITY OF AUCKLAND
INVESTMENT CLUB

INVESTMENT BULLETIN

STUDENT WRITERS · STUDENT OPINIONS

WELCOME TO THE

METAVERSE

19 SEP 2022 | ISSUE NO.42

BY FAHEEM IBRAHIM

+ MORE ON: ECONOMICS OF THE QUEEN · TAMING THE BEAST · SHORTING THE MARKET

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An update from the fund

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

HANSEN
POWER THE NEXT.™

HANSEN TECHNOLOGIES (ASX: HSN)

Hansen Technologies is an Australian technology company which provides support software to energy and communications companies across more than 80 countries. Their software products range from billing, customer management and pricing to automated market trading, communication network provisioning and smart grid optimisers.

In the energy industry, shifts towards residential solar panels have brought the need for 'smart grids', changing how energy companies need to price and optimise their grids. Deregulation has also seen companies needing to be able to trade energy on an open market. Similarly, the communications sector is propelled by the rise of 5G and the Internet of Things, demanding changes to how providers price and operate their networks. Hansen is well-placed to continue its growth, leveraging its global team of developers to continue improving its suite of products, bringing significant customer wins in the past year. Furthermore, its acquisitions team continues to bring value through the "Hansenisation" process, having made more than 30 successful acquisitions previously.

A strong IP investment strategy, deep embedding with their customers and a diverse geographical spread provide a strong competitive moat for Hansen. A specific focus on the communications and energy sectors also means they are considerably ahead of large competitors SAP and Oracle.

With a strong balance sheet, cash position and growth, we see great potential in Hansen's future. The Investment Committee passed Hansen to the valuation stage by a vote of 13/14. Daniel Mar, Wynton Brick and Isabelle Lee will run the valuation.

TECH

Welcome to the Metaverse

BY FAHEEM IBRAHIM

In 1992, American novelist Neal Stephenson talked about a virtual world where people would use digital characters to live, work and play online. He called it the "Metaverse" - 'meta' being the Greek word for beyond and 'verse' being derived from 'universe'. Stephenson claimed that the metaverse would be the internet's successor and be used as an escape from reality. These were his projections three decades ago.

Today, some of the largest tech companies in the world - Apple, Microsoft, Google and Facebook, to name a few - are racing to make Stephenson's predictions into reality. Facebook even took the step of rebranding as "Meta" to get ahead of the curve. To many people, the Metaverse may sound like some sort of utopian society to which people can escape, especially during difficult times like the ones we are living through now. However, the question many people will ask is whether we really need an imaginary world controlled by giant corporations. Will it really make our lives better or will it just manipulate our perception of reality?

2022 is shaping up to be the year of the Metaverse - a technology-based augmented reality space that will change how we live and interact forever. The best way to describe this new reality would be to imagine the internet, but instead of just looking at it and scrolling down, you will actually be living in it. The Metaverse will allow you to meet loved ones in a virtual space instead of video calling, and actual movements and conversations can take place. This is what the Metaverse offers - experience, not just sight or sound.

Video games have had this concept for a while now. Many of the biggest gaming companies in the world, such as Mojang, Epic, and Rockstar Games (makers of Minecraft, Fortnite and Grand Theft Auto, respectively), have already built their own virtual worlds with their own virtual economies. While the Metaverse may embody some of these gaming elements, the characters or avatars will be real human beings. Their world, however, will be entirely fictional, made up of virtual elements that parallel real life. According to Meta CEO Mark Zuckerberg, the Metaverse would be "the second-best thing to a teleportation device" where users will be able to explore a virtual world while being physically present at home.

While Facebook wants to create the biggest Metaverse, they aren't the only ones in pursuit. A number of tech giants are well and truly in the race as well. Apple is currently working on an advanced virtual reality gadget that could revolutionise the Metaverse experience. Google is working on an innovative augmented virtual reality device and Microsoft have entered the Metaverse race as well by developing their virtual platform "Mesh". Disney is also looking to create their own

Metaverse as an extension of their films and streaming service. With the backing of some of the largest corporations in the world, the Metaverse is no longer an experiment but an inevitable alternative to reality.

Although the inevitability of the Metaverse seems to be growing, there are still some questions that need to be answered, and rightfully so. The Metaverse is different to a violent video game - instead of playing a game you will actually be living it. The Metaverse will place you in a digital environment where sensory experiences are heightened and exaggerated to give users a more immersive experience.

The Metaverse could easily become a dangerous, addictive, and unhealthy escape from reality. The Metaverse promises to give people a second life, an online world where users can interact, shop, party and even build a house. We need to remember one thing, however - holograms cannot replace human relationships and sensory experiences cannot replace real emotions. The question remains: will the Metaverse make our lives better or will it simply delude us into living a false reality while making our real lives worse?

GLOBAL

The economics of the Queen

BY SKIP GEE

Amid the flood of articles citing the many achievements of the late Queen Elizabeth II, there has been a similar outpouring lambasting the Queen on every detail of her reign. I am no monarchist, but this perked my interest. Here is someone who, as far as I had known, served her country in the most heavily scrutinised environment on earth without fuss. Well, lucky for my comprehension, much of the criticism came from an economic standpoint; journalists and would-be UK republicans quoting the high cost of maintaining the monarchy.

The question in my mind was set: does the monarchy provide a net benefit to the U.K. economy?

The first thing which becomes apparent when assessing the Crown's finances is a profound degree of murkiness and secrecy in keeping this information out of the public's hands. David McClure, an expert in the area, is highly critical of this lack of available data in his book "The Queens True Worth". Nevertheless, in the absence of official information or a team of investigative journalists, I made do by surfing Sunday Times articles, Forbes rich lists and financial reports – as and when I could get my hands on them. Eventually, I came up with a consistent base of data from which to work from (all values in USD).

In terms of a "net worth", the crown's business empire holds various assets amounting to a reported $28 billion (Forbes). The lion's share of this sum is made up of the Crown Estate, a portfolio consisting of high-end properties and almost 200,000 acres of rural land. In 2022, the Crown Estate was worth an estimated $19.5 billion. The remaining $8.5 billion or so in assets is made up primarily by Buckingham Palace (est. $4.9 billion), the Duchy of Lancaster (est. $748 million) and the Duchy of Cornwall (est. $1.3 billion). Story cut short; the monarchy is clearly in no danger of going broke.

At this point in my research, I was able to appreciate the argument of the would-be republicans; with financial assets worth nearly $30 billion, why would the monarchy need any further supplementary financial aid? Well, the devil is in the detail. The Crown Estate may be legally owned by the crown but is controlled by the British government and the hundreds of millions in revenue it makes per year finds its way into the British treasury. The Crown recuperates 25% of this revenue through the Sovereign Grant, a fund made available to support the Sovereign's official functions and maintain the occupied royal palaces (Royal). It is worth noting that the current rate was increased from 15% to 25% in 2016 in order to pay for Buckingham Palace's restoration. The fund will likely return to 15% in 2023 (Economist).

The Sovereign Grant represents the bulk of the pecuniary aid the Crown receives from the government. The Royal website is keen to make plain that in 2020-21 this amounted to just $120 million, or around $1.50 per British taxpayer (Royal). However, this does not represent the full extent of aid given. David McClure suggests that the government's cost to protect the senior royal family members amounts to around $100 million every year and is funded entirely by the British treasury.

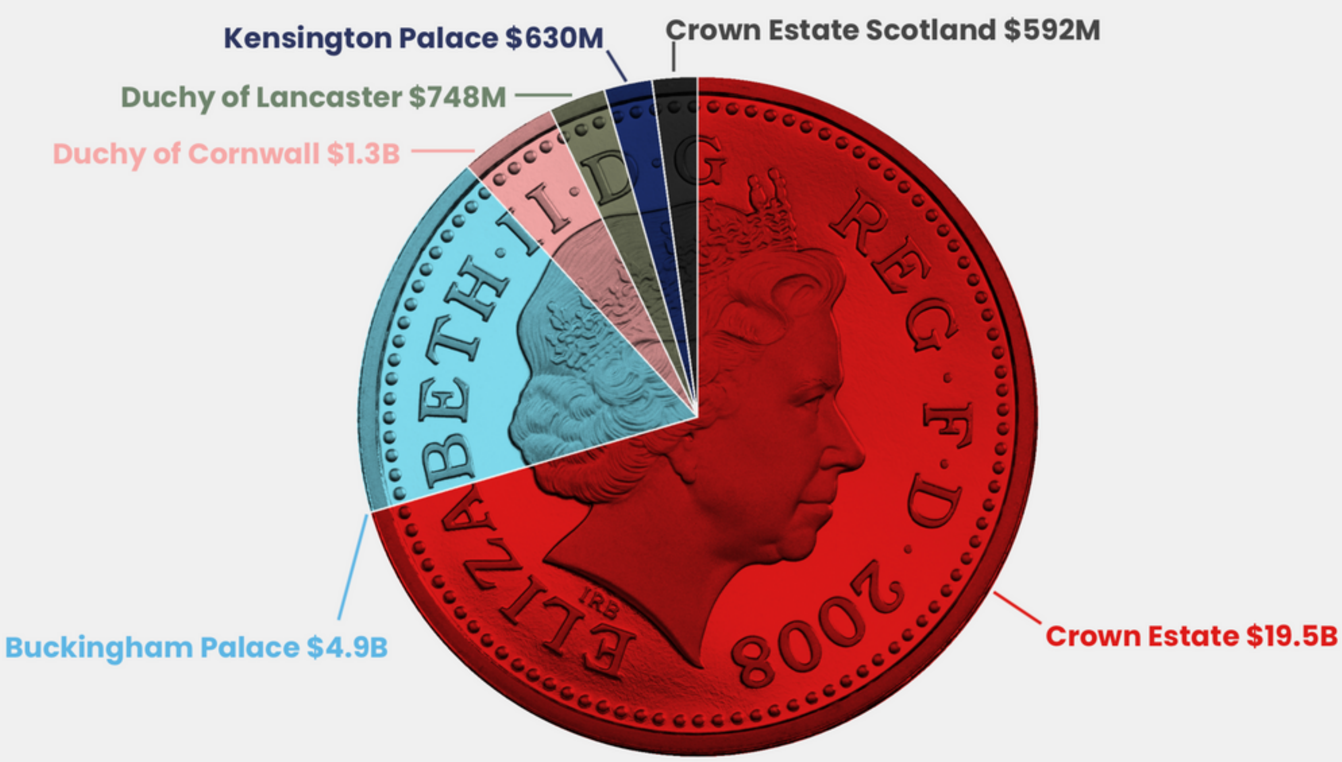
The government's aid also extends to favourable tax treatment. A normal family set to inherit north of $380,000 in Britain can expect to be handed a 40% tax bill. The late Queen's reported $500 million personal fortune certainly fits into this tax band. Nevertheless, King Charles & Co. will not be obliged to pay any tax on the inheritance. The reason why has been outlined in a 2012 memorandum. In brief, to continue its public functions, the monarchy must maintain a degree of financial independence from the British government. The late Queen and her eldest son have, however, voluntarily paid income and capital gains tax since 1993 - though they are not legally required to do so (Washington Post). This is paid on personal assets and income derived from crown assets not used for official purposes.

Brand Finance provided a complete breakdown on the value of the monarchy in 2017. The estimated cost of maintaining the monarchy every year was $5.85 per British taxpayer. This was inclusive of the Sovereign Grant, security costs and other miscellaneous spending and totalled a sum of $380 million. Add to this figure whatever value you place on the royal family's favourable tax treatment, and you have painted a fairly strong case against the continuation of the monarchy (in economic terms anyway).

Nevertheless, the same report by Brand Finance in 2017 established that the monarchy contributes far more to the U.K. economy than it costs in upkeep. Prior to the pandemic it was estimated the monarchy provided $2.7 billion annually to the U.K. economy. This is inclusive of the monarchy's positive influence on trade, tourism, media as well as the Crown Estate surplus.

In more recent years and in spite of the pandemic, I fail to see how this number may have faltered. Now more than ever the pomp and prestige of the monarchy is influential in daily life. Prince Harry and Meghan Markle's wedding brought in an estimated $1.5 billion to the U.K. economy. Despite their best efforts to ditch their royal roots, signing contracts with Netflix and interviewing with Oprah have only proven to extend the relevance of the monarchy further.

With borders back open and tourism allowed to flow freely once again, the relevance of the monarchy means profit to the U.K. Even now, at the height of mourning, 750,000 people line the streets in chilly London, waiting 24 hours in a queue to catch a glimpse of the Queen's coffin. The monarchy is not going anywhere anytime soon; nor, from an economic stance, should it.



The assets of the Royal Family / Forbes.

MARKETS · ECONOMY

Taming the beast

BY ANISTON INGER-HOLLAND

The sun's out, the war in Ukraine is easing, the pandemic is seemingly over according to government policy...are things really as good as they seem?

In all honesty, I don't think that's the case. I've had a bad feeling for the past week that we're only getting started. Call me a doomsdayer, but I can't quite shake the feeling that something isn't right and the statistics are starting to prove it.

In the United States on Tuesday, the Consumer Price Index figures were announced - and the market reaction was sour. August's CPI numbers had fallen less than expected year-on-year but were a sharp increase from the previous month, coming in at 8.3% and largely due to volatility in food and energy prices. The reaction in the equity markets was evident - the Dow Jones fell 3.94%, the S&P500 4.3% and the NASDAQ 5.16%.

The big question on the minds of economists this week? Interest rates. After the announcement of higher than expected inflation, markets are now pricing in a 100% chance that the Federal Reserve will raise interest rates by 75 basis points after their September meeting, and a 24% chance they will be raised by 100 basis points.

In a recent Bloomberg article, experts noted: "It's been a reality check. Markets were, again, ahead of themselves. The Federal Reserve will not step on the brakes before year end, so we can expect more rate hikes."

On Fox Business, economist Peter Schiff said regardless of the rate hike, it won't matter and that inflation will only continue to increase as the economy worsens. "The rate hikes are too little too late." Concerningly, Schiff noted, "The Fed needs to make interest rates above the rate of inflation." This would mean interest rates of more than 8%. As of July 28 2022, the current Federal Reserve rate is 2.25% to 2.5%.

On the other hand, investment strategist Brent Schutte noted that interest rates needed to be half that, at 4%, to curb inflation. On the bright side - arguably - he commented that one of the components of CPI was shelter and that there was a 12 to 16-month lag on house prices being included in that data. As house prices are falling in the United States, this would put downward pressure on inflation.

Personally, I think the next rate hike will be 75bps rather than 100bps. But a third successive rate hike of 75bps is not ideal either. The Federal Reserve is in a difficult situation as not curbing inflation has its repercussions, but tightening monetary policy will also have consequences for households, businesses, and thus the economy as a whole. With higher interest rates to combat inflation comes increased difficulty for borrowing, which also decreases investment. This increases recessionary pressure and also the unemployment rate, which has flow-on effects of its own.

But this economic outlook isn't unexpected after the last few years of expansionary fiscal policy from governments around the world, combined with the outbreak of war in Ukraine and its

effect on oil - one of the most prized commodities. Government debt has skyrocketed in recent years, and significant disruptions to sectors across the board leading to severe supply chain shocks - that still haven't recovered - paints a grim picture. This is not to say that the world is ending, but we may soon discover the price we have to pay after years of disruption. You can only starve off an economic crisis for so long. We're at a point where we cannot ignore the situation any longer.

Why does this even matter for people in New Zealand?

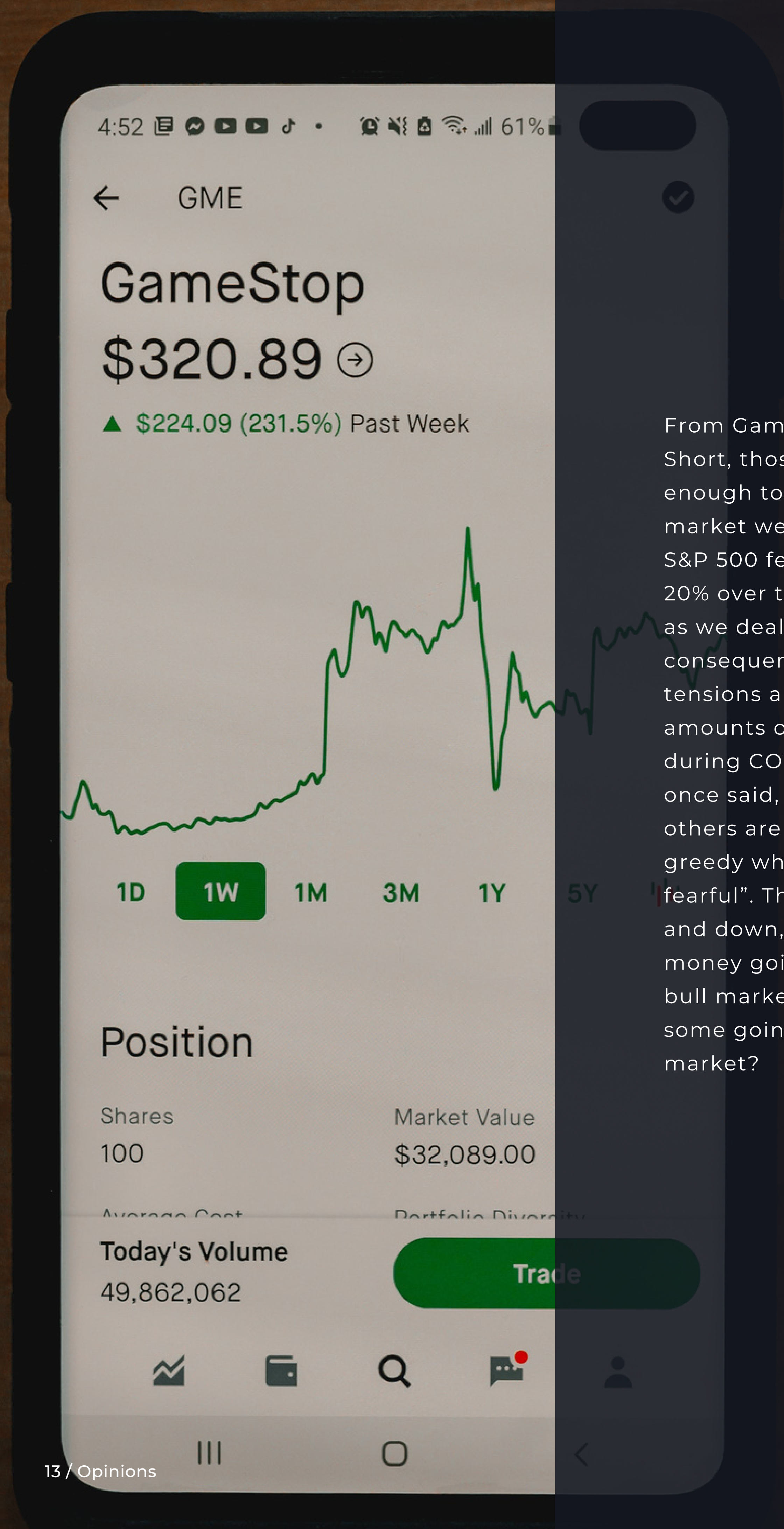
It matters because of how reliant the world economy is on the United States. Not only that, but we're facing similar problems of our own with a high cost of living. In August, New Zealand saw its biggest increase in grocery prices in 13 years with a rise of 8.3%. This was the largest annual increase since the global financial crisis. The consumer price index stands at an increase of 7.3% in June 2022 compared to the previous year - one of the largest annual movements since the 1990s. We're breaking records, but not in a good way.

The point of this article is not to discourage. Economic downturns happen. They're a normal part of the economic cycle. What we can do by removing the sugar coating from the "strong economy" picture governments have preached us, is acknowledge the reality and the near-term problems we may face. We need to prepare for it. By preparing, you can ensure you are in the best position and even make some money on the ride. After all, what has history shown us? After a bust, there will be a boom.

INVESTING

Recession? Why not short the market?

BY ANTHONY KWAN



From Gamestop to The Big Short, those who were bold enough to go against the market were rewarded. The S&P 500 fell by more than 20% over the first half of 2022 as we dealt with the consequences of geopolitical tensions and the insane amounts of money printed during COVID. Warren Buffet once said, “be fearful when others are greedy, and greedy when others are fearful”. The market goes up and down, so if you can make money going long during a bull market, why not make some going short in a bear market?

Short selling is when you borrow a share of stock, or an asset, and sell it for the current market price with the intention of buying it back at a lower price (and profiting the difference). People short because the charts tell them to (through technical analysis), or they have inside information or analysis that tells them an asset should trade lower, or it's a hedge against their longs. Short selling is a dangerous game as technically the price can continue to increase from where you sold and make your losses go up to infinity. One common event is a 'short squeeze'. This occurs when the price of a stock moves higher, leading some short sellers to begin closing their short positions by buying back stock. This, in turn, drives the price up even further, causing more short sellers to cover their positions. These dangers were highlighted through Gamestop.

GameStop is a retail company focused on video games and consumer electronics. Although the stock was largely ignored by institutional investors, retail investors, especially those in the Reddit group WallstreetBets, were happy to invest in it. This led to its share price eventually climbing to $20 in early 2021, where it drew the attention of a number of hedge funds who thought it was overvalued and decided to short the stock as a result.

Reddit users noticed the short activity and made a plan amongst themselves to continue buying the stock. Eventually, the meme began picking up momentum and GameStop surged to over $480 at its peak. Ultimately as the short options expired, companies who shorted Gamestop faced a total of $11 billion in losses.

That's the danger of shorting the market. Unexpected events, like a short squeeze, can occur out of nowhere. On one side, it was hailed as a victory against Wall Street. But some retail investors who 'FOMO'd' into the meme stock, and helped push the price upwards of $400, ended up being 'exit liquidity' and lost money too, while the people who initiated the idea slowly took profits. Plenty of retail investors who joined in ended up on the wrong side. This highlighted the ruthlessness of the market for those that didn't understand what they were doing.

Shorting seems like a daunting concept. But if you can find stocks that are undervalued, why can't the same be done with overvalued stocks? Whether you are using technical analysis (believing that everything is priced in), fundamental analysis, or both, you can look at the market neutrally. The majority of investors solely hold long-term investments. Imagine diversifying your portfolio to an extent that you also have short positions (in other overvalued companies) to hedge against your longs.

Ultimately, when the market is bullish, everything goes up. And when it's bearish, everything goes down. Being prepared for both situations provides tons of opportunities. Hedge funds position themselves so they also have shorts. If they have some, why shouldn't retail investors also have some? Information and accessibility is amazing now, the market is unforgiving but those who are willing to learn can take advantage of bear markets too.

MYOB Column

Building a digital-first culture in 6 steps

A digital revolution is possible in your organisation. Start with these six steps to radically shift your culture towards digital-first thinking.

1. Build an appetite for calculated risks
2. Put customer needs and habits at the centre
3. Embrace digital objectives
4. Connect the right data to the right decisions
5. Burst silos
6. Instil accountability

In today's market, a digital-first strategy is essential to remain competitive, but that must be grounded in an internal culture designed to support it.

Any disconnect between silos or with customers, hesitancy around risk assessment or lack of accountability will throw up barriers that even the best technology won't overcome.

Read the full blog here.

Forsyth Barr FOCUS

The Blue Economy

Aquaculture is the farming of finfish, crustaceans, molluscs, algae, and other aquatic organisms. Unlike capture fisheries, aquaculture is not exposed to declining wild fish populations as a result of climate change, and has been the key growth driver of global seafood production over the past 50 years.

Following the example of countries such as Norway and Australia, the New Zealand Government is increasingly focused on the potential benefits of aquaculture and the 'blue economy'.

It has announced an ambitious target to grow total aquaculture revenue to NZ$3bn by 2030, around four times today's level.

Read the full article here.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