Selector High Conviction Equity Fund Quarterly Newsletter No.68

June 2020

In this quarterly edition, we review performance and attribution. We discuss some of the recent capital raisings in our three-part *"Forced Dilution"* series and reflect on what we're coining, *"Gap year 2020"*.

We also turn our attention to technological adoption and the move to digital and the cloud. We introduce and profile a new fund investment, Megaport.

In our *"Gravy train"* article, we spotlight a company in the online retail space. We also have a piece on carbon emissions, a topic that is likely to re-emerge as a hot issue. To finish off, we detail Selector's initiative to become carbon neutral.

Photo. Peruvian health worker checks temperatures near the border with Bolivia.

Selector Funds Management Limited
ACN 102756347 AFSL 225316
Level 8, 10 Bridge Street
Sydney NSW 2000 Australia
Tel 612 8090 3612
www.selectorfund.com.au

selector

f

selector

Selector is a Sydney based fund manager. Our team combines deep experience in financial markets with diversity of background and thought. We believe in long-term wealth creation and building lasting relationships with our investors.

We focus on stock selection, the funds are high conviction, concentrated and index unaware. As a result, the portfolios have low turnover and produce tax effective returns.

Selector has a 15-year track record of outperformance and we continue to seek businesses with leadership qualities, run by competent management teams, underpinned by strong balance sheets and with a focus on capital management.

CONTENTS

IN BRIEF – JUNE QUARTER	3
PORTFOLIO OVERVIEW	5
PORTFOLIO CONTRIBUTORS	8
FORCED DILUTION – PART ONE	12
FORCED DILUTION – PART TWO	14
FORCED DILUTION – PART THREE	15
GAP YEAR 2020	18
WHERE TO FROM HERE? DEBT.	20
MEGAPORT – ENABLING THE CLOUD	22
GRAVY TRAIN	36
FAIR WORK OMBUDSMAN NOT SO FAIR	38
CARBON EMISSIONS – A DIRTY WORD	39
SELECTOR'S CARBON EMISSIONS	50
COMPANY VISIT DIARY – JUNE 2020 QUARTER	52

IN BRIEF – JUNE QUARTER

Dear Investor,

Coming out of a health induced global lockdown was never going to be a straightforward exercise. The practicality of coordinating the unwind was on full show during the quarter, as politicians grappled with the appropriate response.

Investors were left equally perplexed. A long list of well known, highly quoted professional fund managers have coined the June quarter share market performance as the *"suckers rally"*. The dramatic sell off in March, which saw the All Ordinaries Index fall 37% from a high point of 7,255 set in February, reversed during the past quarter rising 35% from its low point, to finish the year at 6,001 points.

Many have been caught on the hop, quickly reversing out of cash and wading back into the market. The jury is still out on whether this is a *"suckers rally"* or just what markets always do, by reflecting investor exuberance and extreme pessimism at points in time.

No one will argue that the aftermath of COVID-19 will deliver all manner of outcomes. But turning the discussion into whether we are in a bear or bull market is a lazy and emotional approach.

Often lost in the fog of market dislocation is the discipline of staying the course. Contrary to those that see merit in pivoting in and out of markets, we would encourage investors to do quite the opposite. The real skill is in selecting and sitting.

COVID-19 has thrown a curve ball that has delivered clear winners and losers, while accelerating the structural trends already underway. Some will emerge from this enforced shutdown better positioned, others more exposed.

We entered this pandemic fully invested and remain so. Our investment approach is one we consistently apply, across all market conditions and centred on a bottom-up, business by business, decision making process.

We certainly took action during the period, participating in a number of capital raisings. Some were imposed on us under the extreme enforced trading conditions, while others took advantage of market opportunities. We discuss some of these situations in our three-part *"Forced Dilution"* series and also reflect on what we're coining, *"Gap year 2020"*.

As we enter the back half of 2020 and start to exit this shutdown, we would have ideally liked the world to be in a better financial setting. Unfortunately, the opposite is true, evidenced by the magnitude of money printing that central banks of all persuasions have undertaken. The economic shock has been so great that policymakers are going to extraordinary lengths to keep credit lines open, while undertaking trillion-dollar debt buying programs.

Fiscal and monetary policies are now being actively pursued in a coordinated manner to kick start stunted economies. The distortion created under this scenario is most apparent in asset prices and the encouragement to onboard more debt. The real danger and one that we are most uneasy about, is in thinking that as a nation and a global economy we can simply borrow our way out of trouble. How this plays out is difficult to quantify at this point, but the extent to which governments are prepared to print money is disturbing. We discuss this further in our *"Where to from here? Debt"* article.

In this quarterly, we also turn our attention to technological adoption and the move to digital and the cloud. We introduce and profile a new fund investment, Megaport who are a global leader in the provision of software defined network services enabling connectivity to the cloud. Following on from this in our *"Gravy train"* article, we spotlight a company in the online retail space that we are unlikely to invest in based on governance and ethical concerns. To finish off, we have a piece on carbon emissions, a topic that is likely to re-emerge as a hot issue in the not too distant future.

For the June quarter, the Portfolio delivered a gross positive return of **20.14%** compared to the S&P ASX All Ordinaries Accumulation Index, which posted a gain of **17.75%.** For the financial year, the Fund delivered a gross negative return of **0.08%** compared to the Index which posted a loss of **7.21%.**

We trust you find the report informative.

Regards,

Selector Investment Team

Warren Buffett approaching the ownership of stocks as businesses, and an investor's requirement to have the financial and psychological temperament to see things through.

"And I'm not recommending that people buy stocks today or tomorrow or next week or next month. I think it all depends on your circumstances. But you shouldn't buy stocks unless you expect – in my view, you expect to hold them for a very extended period, and you are prepared financially and psychologically to hold them the same way you would hold a farm and never look at a quote and never pay it – you don't need to pay attention to them. I mean the main thing to do – And you're not going to pick the bottom and nobody else can pick it for you or anything of the sort. You've got to be prepared when you buy a stock, have it go down 50% or more and be comfortable with it as long as you're comfortable with the holding."

"And I pointed out, I think the year maybe two years ago in the annual report, just the one before this most recent one, I pointed out that there have been three times in Berkshire's history when the price of Berkshire stock went down 50%. Three different times. Now if you hold it on borrowed money, you could have been cleaned out. There wasn't anything wrong with Berkshire when those three times occurred. But if you're going to look at the price of the stock and think that you have to act because it's doing this or that or somebody else tells you how can you stay with that when something else is going up or anything else. You've got to be in the right psychological position. And frankly, some people are not really careful. Some people are more subject to fear than others."

"It's like the virus. It strikes some people with a much greater ferocity than others. And fear is something I really never felt financially, but I don't think Charlie's felt it either. But some people can handle it psychologically. If they can't handle psychologically, then you really shouldn't own stocks because you're going to buy and sell at the wrong time. And you should not count on somebody else telling you. You should do something you understand yourself. If you don't understand it yourself, you're going to be affected by the next person you talk to. And so you should be in a position to hold. And I don't know whether today is a great day to buy stocks. I know it will work out over 20 or 30 years. I don't know whether it will work out over two years at all. I have no idea whether you'll be ahead or behind on a stock you buy on Monday morning or the market."

Warren Buffett
Berkshire Hathaway Inc.
2020 Annual General Meeting

PORTFOLIO OVERVIEW

Table 1: Performance as at 30 June 2020*

	3 Month	6 Month	1 Year	3 Year	5 Year	10 Year	15 year	Since Inception
Fund (net of fees)	19.43	(9.80)	(2.37)	13.44	14.12	13.85	9.50	10.65
Fund (gross of fees)	20.14	(9.09)	(0.08)	15.63	16.27	15.98	11.54	12.76
All Ords. Acc. Index	17.75	(10.42)	(7.21)	5.43	6.22	7.78	6.75	7.39
Difference (gross of fees)	2.39	1.33	7.13	10.20	10.05	8.20	4.79	5.37

Inception Date: 30/10/2004

**Performance figures are historical percentages. Returns are annualised and assume the reinvestment of all distributions.*

Graph 1: Gross value of $100,000 invested since inception

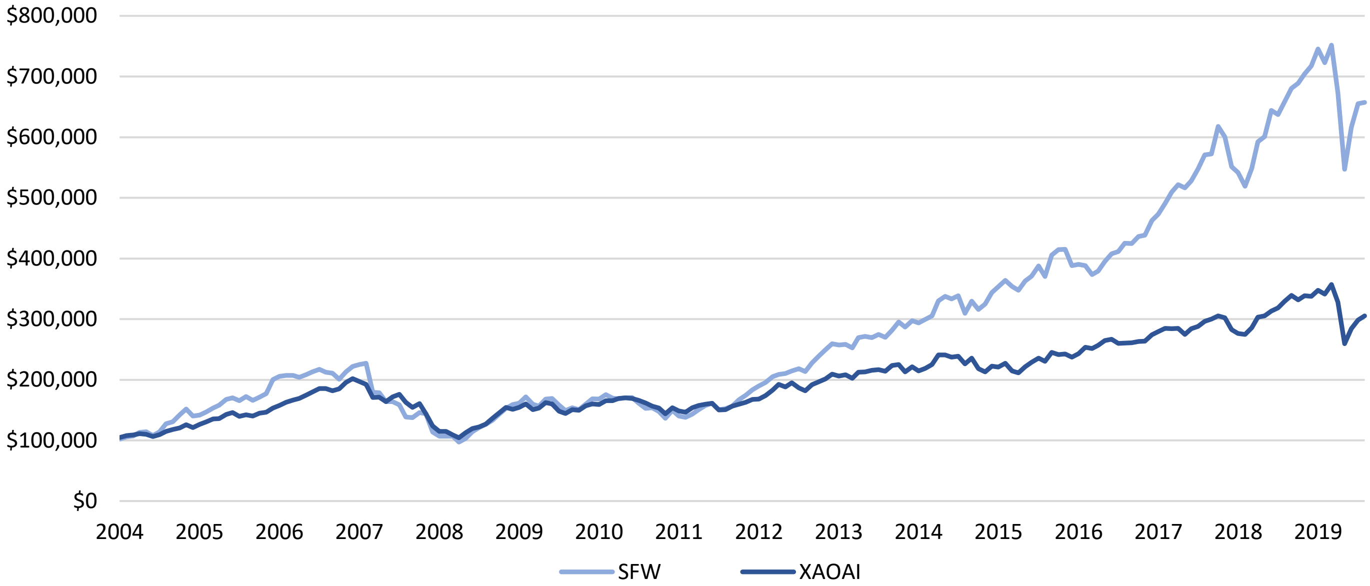


Table 2: Fund's Top 10 Holdings

Top 10 June 2020	%	Top 10 March 2020	%
ResMed	5.80	ResMed	6.28
Domino's Pizza Enterprises	5.77	Iress	5.57
Iress	5.25	Altium	5.48
Altium	5.16	Cochlear	5.45
James Hardie Industries	5.15	Domino's Pizza Enterprises	5.18
Carsales.com	4.73	CSL	5.08
Aristocrat Leisure	4.65	Aristocrat Leisure	4.60
Seek	4.60	TechnologyOne	4.58
TechnologyOne	4.58	Nanosonics	4.36
Cochlear	4.55	James Hardie Industries	4.07
Total	**50.24**	**Total**	**50.65**

Table 3: Unit prices as at 30 June 2020**

Unit Prices	Entry Price	Exit Price	Mid Price	Mid Price (Cum Distribution)
	$2.8191	$2.8051	$2.8121	$2.8206

***FY20 distribution total of $0.0086 per unit*

Selector employs a high conviction, index unaware, stock selection investment strategy. The Fund's top 10 positions usually represent a high percentage of its equity exposure. Current and past portfolio composition has historically been very unlike that of your average "*run-of-the-mill index hugging*" fund manager. Our goal remains focused on truly differentiated broad-cap businesses rather than the closet index hugging portfolios offered by most large fund managers.

Table 4: ASX sector performance – June 2020 quarter

S&P ASX Industry Sectors	Quarter Performance (%)
Information Technology	48.67
Consumer Discretionary	30.11
Energy	28.04
Materials	26.11
A-REITS	18.33
Industrials	14.84
Telecommunications	13.49
Financials	12.46
Consumer Staples	7.17
Utilities	4.10
Healthcare	2.30

Table 5: Fund's industry weightings

Industry group	June 2020 (%)	March 2020 (%)
Software & Services	26.62	25.44
Health Care Equipment & Services	17.37	18.36
Consumer Services	16.76	15.68
Media & Entertainment	10.19	4.52
Capital Goods	6.31	6.37
Diversified Financials	5.20	4.97
Materials	5.15	5.04
Pharmaceuticals, Biotech & Life Sciences	4.07	5.08
Household & Personal Products	3.09	3.27
Insurance	2.39	3.21
Automobiles & Components	1.39	1.33
Consumer Durables & Apparel	0.99	0.76
Cash & Other	0.48	2.23
Commercial & Professional Services	N/A	3.76

Investment Transactions

Purchases

During the quarter, we participated in capital raisings for:

- Blackmores
- Breville Group
- Flight Centre Travel Group
- Infomedia
- Iress
- Reece

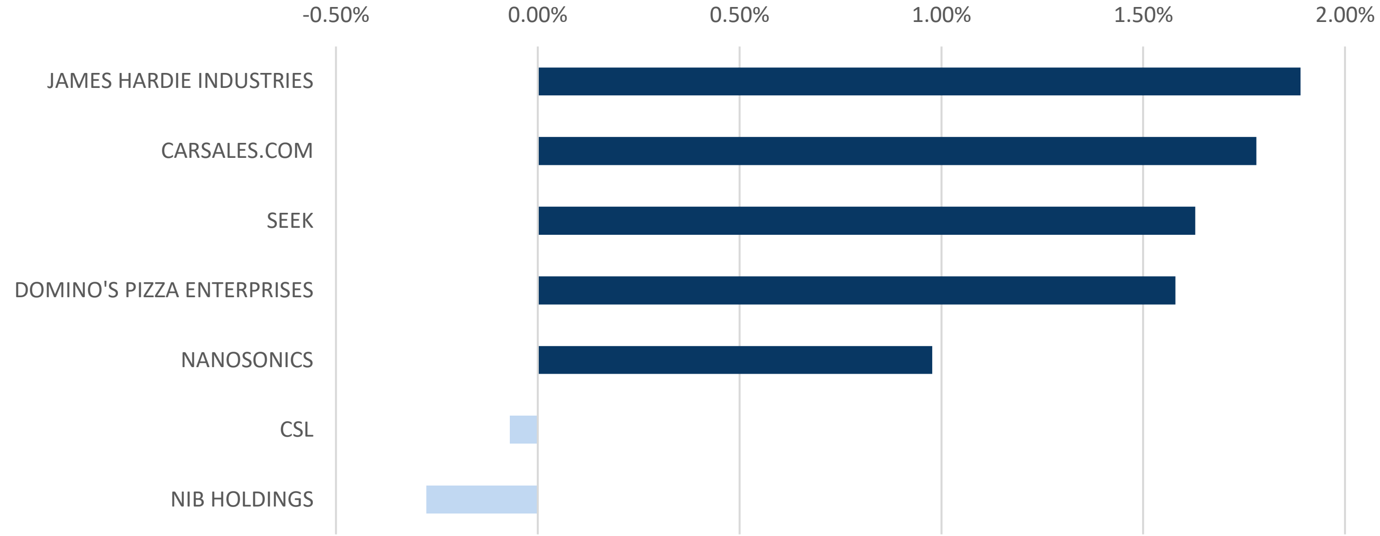
We also increased our holdings in **Aristocrat Leisure, James Hardie Industries, Megaport, OFX Group** and **TechnologyOne.**

Sales

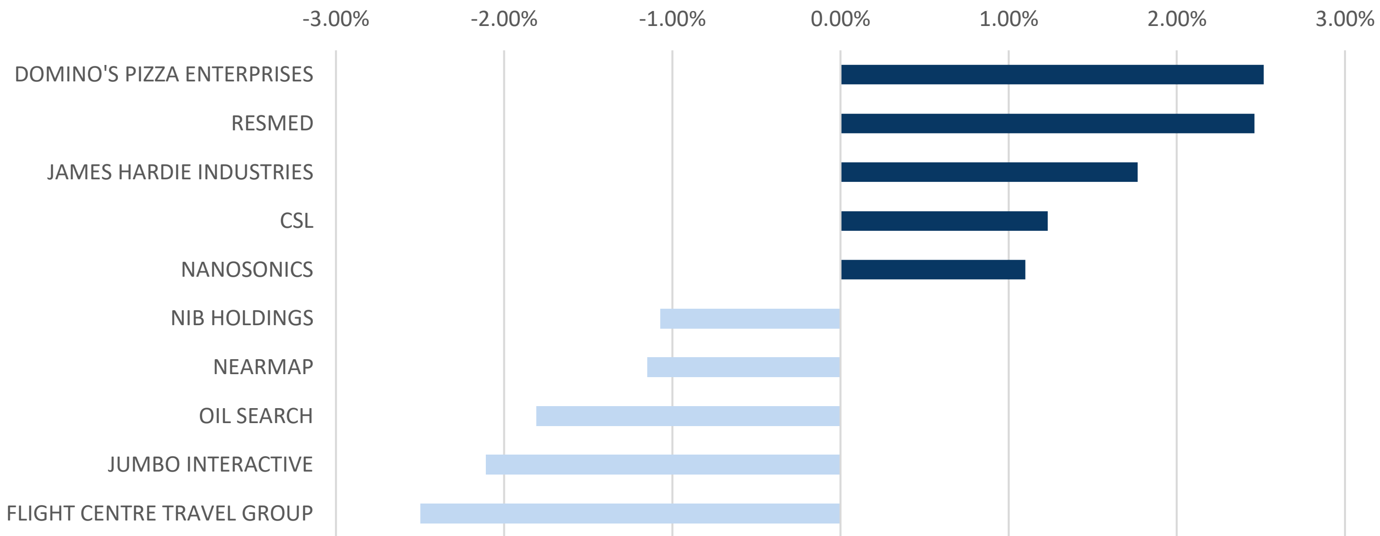
During the quarter, we reduced our holding in **The Star Entertainment Group** and exited our position in **Sims.**

PORTFOLIO CONTRIBUTORS

Graph 2: Contributors and Detractors – June 2020 quarter



Graph 3: Contributors and detractors – June 2020 financial year



Top quarterly contributors

1. James Hardie Industries (ASX:JHX)

Leading fibre cement producer James Hardie recorded a strong fourth quarter and full year performance, continuing to deliver on CEO Jack Truong's long-term transformation strategy. Since being officially appointed CEO in early 2019, Truong has very clearly articulated his intention to integrate lean manufacturing processes while engaging with both the builders (creating pull demand) and distributors (push demand) in pursuit of above market growth.

Management has made significant progress on this transformation, resulting in four consecutive quarters of strong results. For the year, the company lifted net sales 4% to US$2,606.8m while the reported net operating profit improved 17% to US$353.8m. James Hardie reported an earnings before interest and tax (EBIT) margin of 25.9%, exceeding the top end of the company's long-term target range. In addition, the company generated US$29m of lean savings in the North American operations, exceeding internal targets in the first year of a three-year plan to see US$100m of annual costs removed from operations.

James Hardie currently operates in three geographies with North America continuing to be a standout contributor to the company's overall performance. For the year, North America delivered primary demand growth (PDG) above 7%. This is the first time in over a decade that this region has delivered PDG above 6% and EBIT margins greater than 25%.

In Asia Pacific, the company is taking share in Australia despite total volumes declining. Volumes in Q4 were negatively impacted by government lockdowns in the Philippines and New Zealand. In Europe, net sales have improved as the business continues to focus on driving fibre cement growth, complementing the existing fibre gypsum operations. However, the growth in net sales did not translate to improved profitability due to operational expenses and integration costs being higher than expected.

The group provided first quarter guidance, with North American adjusted EBIT margins forecast to sit between 22% and 27%, supported by a leverage ratio of less than 2x (currently 1.9x) and balance sheet liquidity levels greater than US$600m (currently US$509.8m). In late June, the company raised this guidance, lifting EBIT margins to range between 27% and 29%, along with an expected leverage ratio of less than 1.8x and liquidity levels greater than US$640m.

James Hardie has a current market capitalisation of $12.1b and net debt of US$1.2b.

2. Carsales.com (ASX:CAR)

Having withdrawn its FY20 guidance in March due to increased uncertainty, leading online automotive listings business Carsales provided a trading update in June in relation to COVID-19. Considering the pressures being felt across the industry, Carsales made the decision to waive advertising charges over April and provided a 50% fee reduction for May. While fees were mostly reinstated over June, new car listings continue to be 100% subsidised.

The total support package provided is expected to cost the company $26m over FY20. Putting the impacts of revenue billed but not charged to one side, the company has performed strongly over the year given the circumstances. For FY20, the company is expected to report adjusted revenue in the range of $419m-$423m, an increase of 0%-1%, and adjusted net profit after tax of $134m-$138m, an increase of 3%-6%.

Given the reduced short-term market activity and lower revenue, the company has invoked cost saving initiatives attempting to balance short term performance and long-term strategic priorities. These initiatives include a reduction in board and management remuneration by 20% until the end of FY20, temporarily standing down 250 employees, mostly on a partial basis, and reducing discretionary costs across the business.

In terms of trading, social distancing in Australia directly impacted sales volumes across the industry, however, this has eased as restrictions have started to be lifted. Between mid-April to mid-June, lead volumes grew very strongly when compared to the prior corresponding period in 2019.

Traffic to Carsales.com has remained resilient while the total inventory available on the site has decreased significantly. This has been driven by a significant reduction in time to sell due to increased demand from car buyers following easing of social distancing restrictions. Dealers are finding it difficult to obtain used and new car stock fuelled by increased demand as consumers seek to avoid public transport.

While the effects of COVID-19 have been felt in South Korea, SK Encar has performed well with key operating metrics continuing to track above the prior year. Brazil has seen a steady escalation of COVID-19, impacting Webmotor's financial and non-financial operating metrics.

CEO Cameron McIntyre said, "*We remain focused on managing short term performance while positioning the business to come out of the current environment in good shape. Our market leading position, strong customer proposition and diversification across geography and product supports our resilience and positions carsales well into the future.*"

In March, the company had a net debt position of $355m and a strong liquidity position with circa $190m in available cash. The company refinanced its debt facilities, increasing capacity to a total of $650m while also extending the duration.

Carsales has a market capitalisation of $4.4b.

3. Seek (ASX:SEK)

In June, employment specialist Seek provided a market update, following a period of uncertain market conditions.

At the first half results, management had originally expected job ad volumes in Seek's Chinese joint venture Zhaopin, to recover in May from the large 70% declines experienced during February. Based on this high-level assumption, guidance for revenue was lowered by $110-120m and operating earnings by $40-45m. Since then, Zhaopin has seen a marked recovery in listings with May billings only down 10% compared to the prior comparative period (pcp). These improvements combined with prudent cost management and efficiency programs have also mitigated the expected negative impact on operating earnings.

In Seek Asia and Seek ANZ declines in billings as a result of the COVID-19 outbreak have been more widespread. Like China, however, these regions have also seen month to month recoveries in volumes, with weekly billing declines in June down some 40% to 50% relative to last year.

While Seek's larger business units have shown resilience, management has reset expectations for Brasil Online, OCC Mundial (Mexico) and four non-core minority investments, largely due to changes in future economic expectations. As a result, Seek is expecting to realise an aggregate non-cash impairment charge of $190-$230m leading to a reported loss for the year.

Financially, Seek has been able to secure strong support from lenders, with the group refinancing its syndicated loan facility while increasing key covenant limits to 30 June 2021. The group has indicated they will remain prudent in managing the balance sheet, with no decision made on the payment of a full year dividend.

Seek has a market capitalisation of $7.7b and net debt of $1.3b.

4. Domino's Pizza Enterprises (ASX:DMP)

Global pizza operator, Domino's Pizza Enterprises ended the first half with strong sales momentum and the first six weeks of the calendar year have begun in an equally positive note. This trend has continued across most markets into March, with Domino's working closely with governments to provide zero contact delivery and zero contact carry out.

Domino's recent COVID-19 trading update highlights significant increases in sales across the key markets of Germany and Japan. The Australian and Benelux regions have also achieved consistent same store sales equivalent to pre-COVID levels, albeit from a different mix of stores. It has become clear that CBD stores and those sites devoted to servicing tourist driven trade have been affected by COVID. This is estimated to be impacting less than 5% of total stores.

Stores in France and New Zealand have reopened after temporary closures to comply with government measures.

Financially, the company is in good shape, having lifted dividends by 6% to 66.7 cents per share for the half year, while net debt remains at a modest level of $514m. Importantly, the financial wellbeing of franchisees remains a key metric and having endured a difficult backdrop over recent years, management is committed to ensuring the quality of franchisees improves to ensure operational and customer service excellence. This is even more important during times of financial stress, where other franchisors may struggle to provide the support required by their franchisees.

Domino's Pizza Enterprises has a market capitalisation of $6.2b and ended the recent half with net debt of $514m.

5. Nanosonics (ASX:NAN)

Under the leadership of CEO Michael Kavanagh, Nanosonics is laying the foundations of a long duration business, underpinned by its focus on infection control. The company continues the rollout of trophon2, an automated high-level disinfection (HLD) unit for ultrasound probes.

While management has observed strong growth over Q3 FY20, the recent limited direct access to hospitals is expected to delay the planned adoption of some trophon units over Q4. This is expected to have a smaller impact on consumables which continue to perform in line with expectations.

Outbreaks of this nature serve to highlight the importance of infection control, which lays at the heart of the Nanosonics offering. The company believes that as hospitals progress past the management of the current COVID-19 outbreak, the company's trophon offering will become increasingly compelling with rising global enquiry levels serving to validate this hypothesis.

Nanosonics has a strong balance sheet with negligible levels of debt, cash reserves of $82m and a current market capitalisation of $2.0b.

Bottom quarterly contributors

1. NIB Holdings (ASX:NHF)

In May, private health insurer NIB Holdings reported a COVID-19 update to its shareholders. Despite, lockdown measures leading to claims savings from ancillary services such as dental and optical, the total benefits remain unknown due to a three-month lag period and potential pent up for demand for doctor and hospital treatments.

Despite the challenging macroeconomic environment, NIB has provided support through a range of initiatives to its members, which include:

- Postponement of April premium increase
- Premium relief or suspension of cover
- Extended product coverage to include COVID-19 related treatments and telehealth consultations for ancillary services
- A $250 wellness rebate for frontline healthcare workers

The company remains well capitalised, augmented by a customer led focus as consumers increasingly consider their health options. At the same time, NIB is partnering with U.S. based Cigna Corporation, to improve patient health insights in the prevention and management of diseases.

NIB Holdings has a current market capitalisation of $2.1b and net debt of $88m.

2. CSL (ASX:CSL)

Leading global biotechnology company CSL provided investors with a COVID-19 update in April. Demand for the company's key plasma products remains strong as CSL's therapies are essential for use in hospitals and for patients at home.

The risk to earnings growth, lies in the company's ability to supply product to meet elevated levels of demand. Pre-COVID-19, CSL were running U.S. blood plasma collection centres at capacity, operating seven days a week, across 15-hour days. With cities shut and social distancing enforced, CSL is likely to experience a slowdown in plasma donations, potentially impacting supply in 2021.

In late June, the company announced the acquisition of exclusive global licence rights from U.S. based uniQure to commercialise a late stage Phase III gene therapy candidate AMT-061 for the treatment of Haemophilia B. The therapy has been shown to increase blood clotting protein lacking in people with Haemophilia B, and if successful may lead to a one time treatment to treat the disease. CSL will pay an initial consideration of US$450m, followed by additional payments and royalties based on uniQure achieving certain milestones.

The uniQure agreement complements CSL's diverse portfolio of products in late-stage development and enhances the company's growing gene therapy capabilities.

CSL has a current market capitalisation of $132b and net debt of US$4.9b.

FORCED DILUTION – PART ONE

When the world stops operating as we know it, it is hard to comprehend the extent of the fallout. For Governments, the decisions made are not always based on logic or practicality.

Regardless, decisions always have consequences and as cities have been closed and businesses shut, companies have had to turn to shareholders for a lifeline. The flurry of capital raisings, a reflection of these extraordinary times, is something we have become all too familiar with having participated in several company capital raisings during the quarter.

We hate dilution that is forced upon us, one where company boards are either caught flat-footed in calming down banks or requiring more cash just to stay in business. A forced shutdown, however, is out of left field, exposing even the very best of business leaders and those who have chosen to put capital at risk, be they business owners or shareholders.

We work very hard to choose our businesses carefully, selecting those that understand the principles of dilution and comprehend the importance of investing sensibly and with duration, in order to generate consistent long-term compound annual returns. The overarching requirement to achieve this is to spend only what you have, while generating a financial return that is attractive, relative to what has been invested. A key metric in our industry is the return on capital employed (ROCE), that being the operating profits of a business compared to the capital (money put in) and the debt invested to generate that return.

In relation to ROCE the higher the number the better, but the level of debt within a business can easily distort any metric when used in isolation. This is best illustrated by companies that take on debt to acquire businesses, thereby growing the profit line while the impact on borrowing costs, in a low interest rate, is more muted. The financial limitations of this strategy are only truly tested during times of distress. Enter COVID-19.

There is no need to describe the economic fallout that has befallen businesses and individuals alike, other than to note that even the most conservative of companies have been cornered and forced to respond. The options available have varied but the necessity to act quickly and decisively has been consistent. In some cases, the most prudent and conservative of businesses have gone into debt to bridge the cash flow gap, while others have simply added to existing leverage.

The more traditional route of asking shareholders for additional capital is also sensible but comes with a sting. That being dilution, something that is more permanent in nature. The more shares on issue, the harder it is to grow earnings per share over the long run. To that end, we seek those few businesses that can deliver *"real earnings per share growth".* Companies that can consistently grow their bottom line (profits), while maintaining a relatively constant level of issued capital (the number of shares on issue), are rare and highly sought after.

Since March 2020, over $25b of new capital has been raised. Some were in need, others were opportunistic, and many were caught on the hop. It is hard to blame the many that have needed to tap the market for assistance. What makes this period uniquely difficult is the way business stopped functioning, without any warning. Perhaps the Government felt these were necessary steps to deal with the circumstances presented, but it has taken a painful and unfair toll on businesses and shareholders and employees alike.

Certainly, the highest profile casualty has been Virgin Australia, a business, along with Qantas that we have never owned. That said, when the world stopped travelling, no manner of management action was going to stop the inevitable. Qantas has so far survived by taking on more long-dated debt and recently initiating a capital raising.

Airlines are by no means an attractive area of investment. They are highly capital intensive, highly leveraged and are subject to many external factors, ultimately leading to poor return on capital metrics.

What is galling, however, is for the Government to pursue a certain narrative that is one-sided, and which is only further egged on by the media. We understand and fully concur with the Government's stance to not bailout businesses but just to be clear, the Government's decision was the catalyst for their collapse. Virgin Australia may not be a great business but for Prime

Minister Scott Morrison to say, *"it's not in the Taxpayers interest to prop a failing company"*, is at best insensitive and at worst dismissive of their own actions.

No company can withstand the economic forces of zero revenue and ongoing fixed costs. A better solution would have entailed some level of business continuity support. Perhaps a form of business insurance when companies are unable to operate due to circumstances outside their control. Whether this would have been practical, sensible or prudent is open to debate. However, make no mistake, every business has had to take radical actions to ride through this economic storm and it is poor form to shift much of that pain to business owners and shareholders. Operating under the most difficult of circumstances and providing the urgent capital necessary to remain viable, it is surely time for the Government and others, including the unions, to give these two groups the recognition they rightly deserve. ***SFM***

FORCED DILUTION – PART TWO

Shareholders who are subject to an enforced dilutionary capital raising have few options. As we commented in *"Forced dilution – Part one",* COVID-19 placed many company boards and management teams in the unenviable position of urgently asking shareholders for more funds.

Granted, some companies were not well placed financially to start with, but for many the need to navigate an environment of zero revenue provided few alternatives. Whilst some chose the debt path, which carries longer-term implications, the more traditional route involved existing shareholders being tapped on the shoulder.

Companies undertaking new capital raisings do so by enlisting investment bankers and sounding out key shareholders. With terms set, usually in the form of a placement or non-renounceable offering and minimum levels of new capital agreed, an announcement to the share market follows.

From here it gets a little murky. Existing institutional shareholders usually get first dibs on the offer, agreeing to participate on an entitlements basis according to shares already held. This is a fair process.

However, many companies leave the allocation process to the underwriters or investment bankers appointed to handle the capital raising. This hands-off approach is subject to abuse and invariably not in the interest of existing shareholders. Unfortunately, the allocation outcomes are not disclosed and those eager to participate can include all manner of investors be they existing, new, cornerstone, hedge funds or those attempting to cover short positions.

With such a bevy of players, interests fail to align. The first and only priority must go to satisfying existing shareholder interest. Leaving important allocation decisions to those aligned with receiving execution fees and brokerage is subject to conflict.

Boards and management need to take the lead to address this. Having asked for more money, they also have the responsibility of garnering the right type of share register. This is not without difficulty, but it is far better to chart a certain course than to be left in the wake of misaligned investors.

Not surprisingly, smaller retail shareholders are often overlooked in this whole process, driven in most part by the need for companies to have certainty of funding. This requires a quick turnaround that is not conducive to a long drawn out process, which can be influenced by broader market events. That said, they can be accommodated via expanded share purchase plans, which many boards are now actively embracing.

Ultimately, pressure needs to be applied on companies to step up and ensure a desired outcome. One where the end goal is better shareholder alignment. A company within our own portfolio that has taken up this very challenge is Infomedia. Below we provide the company's update post the completion of its recent $84m capital raising.

Infomedia[1] – Placement Demand Allocation

"All existing Infomedia institutional shareholders that chose to participate in the Placement were allocated a minimum of their pro-rata entitlement, or such portions of the allocations they requested. This resulted in approximately 98% of the shares issued under the Placement being allocated to existing Infomedia shareholders. ***Infomedia's Board and management took several factors into account when determining Placement allocations, including the overall composition of the share register, prior engagement with Board and management and investment style of the applicant."***

We commend the company for taking the initiative. They have set a new benchmark, acting in the best interests of the company and its shareholders, and as a result ensuring alignment. ***SFM***

[1] *Selector is a shareholder in Infomedia on behalf of investors.*

FORCED DILUTION – PART THREE

One business that took the full brunt of COVID-19 was global hearing implant leader Cochlear. It had to contend with two significant issues. Firstly, the forced postponement of elective surgeries for the treatment of patients undergoing cochlear implants throughout the majority of developed and developing nations. Secondly, losing its appeal against an adverse court ruling, which ordered the company to pay US$468m in damages over a long-running patent dispute.

The result of these two rather extreme events and the company's desire to retain financial conservatism, led to Cochlear seeking fresh shareholder capital in March for the first time since listing on the Australian Stock Exchange in 1995. Our investment in the business extends close to two decades. In our December 2010 Quarterly Newsletter, we provided some of the rationale that underpinned our reasons for investing. The 'Five Forces', as outlined by Harvard University Professor Michael Porter, speaks to the significant business barriers that the business enjoys.

The following is an extract from that quarterly,

"In fact, Harvard University Professor Michael Porter nominated barriers to entry as one of Five Forces impacting the durability of a company's market position. The remaining four forces included: (1) the intensity of current market competition; (2) the threat of substitution by alternate products; (3) the strength of a company's customers; and (4) the strength of a company's suppliers."

Fortunately for investors, hearing implant manufacturer Cochlear hits all the right notes when it comes to Porter's Five Forces. Many of these qualities have been highlighted in our previous newsletter editions, however, recent events surrounding nearest competitor Advanced Bionics – now wholly owned by Swiss based Sonova Holdings, following its takeover in November 2009 for US$489 million – have underscored the competitive moat that Cochlear has built over the past thirty-two years."

Ironically, months after writing that piece Cochlear undertook a voluntary product recall of its Nucleus CI500 product range. At the time of the recall in September 2011, the implants that failed simply stopped working without causing any injury to the recipient. But having done so, extraction and re-implantation of a new device was required. In this case most recipients switched to the company's alternative implant, the Nucleus Freedom.

Sometime later the implant's failure was identified, *"The results of our investigation to date point to a loss of hermeticity from unexpected variations in the brazing process during manufacturing. Brazing is the process that joins the feedthrough to the titanium chassis. Variations in the brazing process have resulted in unlimited number of implants being more susceptible to developing micro cracks in the braze joint during subsequent manufacturing steps. These micro cracks allow water molecules to enter the implant resulting in the malfunction of specific electronic components (typically one of four diodes)."*

As a result of the recall, the company provided a pre-tax provision of $138.8m. By 2012, Cochlear had confirmed approximately 4.2% of registered devices globally had failed, with most failures occurring within the first twelve months following implantation.

To date this has been the only recall in the company's 38-year history.

Now let us contrast Cochlear's track record with its nearest U.S. competitor Advanced Bionics, owned by publicly listed and Swiss based Sonova Holdings. The ownership of Advanced Bionics shifted to Sonova in a 2009 takeover. Since its foundation in 1993, the company has been involved in six product recalls, its most recent being on 18 February 2020 under Sonova's watch. Details from the company are scant at this point, but industry feedback is not painting a rosy outlook for the company's core HiRes Ultra cochlear implant.

Since its market launch three years ago, more than 16,000 HiRes Ultra implant surgeries have been undertaken. Management noted its decision to voluntary recall products was driven by the growing incidence of declining sound performance over the past twelve months.

"To date, less than 0.5% of recipients have been explanted and, based on AB's quality system monitoring, the vast majority of HiRes Ultra and Ultra 3D implants

continue to function properly. This situation does not present a device related safety issue to the recipients."

While Sonova are publicly playing down the severity of the recall, industry feedback from U.S. based cochlear implant centres are observing failure rates tracking over ten percent.

This contradiction in incidence rates and subsequent poor handling of the situation, has left implant clinics and recipients questioning the company's underlying motives. In a country renowned for product litigation, the threat of legal action hangs heavily over the company. New recipients are also electing to switch to alternative offerings, namely Cochlear's market leading implant, the Nucleus Profile Plus.

Globally, the resurgence in Cochlear's market leadership is reflected in the key regions of the U.S., and the U.K., with implant share moving to 80%, while within Germany and China's private paying market, these sit at 60% and 50% respectively.

Why are these statistics important?

The barriers identified by Professor Porter requires many factors coming together. At its core, brand awareness and product uniqueness are outputs of innovation and reinvestment. The key is having sufficient business scale to justify the ongoing investment in the product lifecycle roadmap, while educating market participants around the effectiveness of hearing implants to treat those suffering from profound hearing loss.

In our June 2019 Quarterly Newsletter, we outlined the growing public awareness within the medical community around the long-term benefits for the early treatment of hearing loss. Cochlear is at the forefront of educating and investing to change clinical practice. Their annual research and development spend, which hit 13% of group revenue or $184m in 2019 is a testament to that commitment. In addition, the company undertakes significant pre-investment in marketing and establishing hearing infrastructures to support awareness, particularly in an adult segment that historically gravitated towards hearing aids as a solution.

Cochlear's two main competitors include privately held Austrian based Group Med-EL and as noted earlier, Advanced Bionics, owned by Sonova. Med-EL was founded in 1990, with operations in over 100 countries and a global market share of cochlear implants estimated at 30%. The group's market share strength lies in the European region, including Germany and developing markets. In the U.S., the company has failed to gain traction with an estimated share of less than ten percent.

While the financial well-being of Med-EL is unknown, the same cannot be said of Sonova Holdings. The business origins can be traced back to 1985, under the previous name Phonak Holding. In 2007 the company was renamed Sonova, although the group's subsidiaries were unaffected. Specialising in the manufacturing of hearing aids and following the purchase of Advanced Bionics, the group entered the cochlear implant arena in 2009.

To date, the acquisition has in our opinion performed poorly. With a U.S. market share estimated at 30% and an overall global share sitting somewhere in the mid-teens, this business segment lacks scale to compete against better positioned competitors. While the company's market valuation at US$13.8b is greater than Cochlear's, the question the new management team need to answer is whether they can continue to commit to the implant business segment that is small in size, whilst simultaneously undertaking a product recall and the potential for a class action. We will watch with interest.

Patent litigation payout

In March, Cochlear confirmed that an earlier court decision to award damages for a long-running patent dispute had been upheld by the U.S. Court of Appeals. The case, which had been running since 2007, was effectively put to rest.

Cochlear has consistently argued the case had no merit and was reflective of a company in its formative years, having not filed for patent protection for its invention in the U.S. This view was partially reinforced when in 2014 the court determined that three of the four patents in dispute, now all expired, were found not to infringe. The one remaining patent was set for a retrial, while the original damages awarded of US$131m, was overturned.

To highlight the lottery type nature of the U.S. judicial system, when this case was returned to the courts the judge concluded in 2018 that the one remaining patent under dispute was valid, upholding a second claim and awarding damages of US$268m against Cochlear. The amount was double the original court verdict with the company ordered to pay the plaintiffs, Alfred E.Mann

Foundation for Scientific Research (AMF) and Advanced Bionics (AB). The plaintiffs also requested prejudgment interest costs of US$123m.

As it currently stands, Cochlear will make payment for the US$268m in damages and is awaiting an appeal on the prejudgment costs relating to interest. Of these proceeds, Advanced Bionics is set to receive somewhere in the vicinity of US$120m, with the balance flowing to Alfred E Mann. The receipt of these funds will come at a welcome time for Advanced Bionics, as it contends with the latest product recall and negative industry feedback.

Post capital raising

The company moved quickly to address the capital needs of the business following the COVID-19 shutdown and the final court ruling. Cochlear raised $1.1b in total, increasing the issued capital by a modest 13.8% and positioning the business to weather these two events, while maintaining investment in its people and product innovation.

Summary

Businesses are prone to setbacks as the above illustrates. However, it should be said that some handle adversity better than others. Cochlear has remained steadfast in its commitment to recipients, has a solid track record on implant performance and the necessary scale to maintain and invest aggressively in new generation technologies. It is the clear market leader and an industry advocate.

We have the highest regard for management and participated in the recent capital raising on behalf of our clients. The Five Forces that Professor Porter articulated carries even more relevance today, a position that Cochlear is likely to exploit to its fullest potential in the years ahead. ***SFM***

GAP YEAR 2020

Gap year, it is a term synonymous with those wishing to take a break from the routine of daily activity, specifically for students looking to switch off post study. A gap year allows the chance to reset, rediscover and define what is next. It also enables many to be opportunistic, bringing with it a flexibility to adapt on the run.

For many individuals and businesses, the year 2020 will go down as the enforced gap year. Having no other choice but to bunker down, lessons in 'improvisation' and the art of 'pivoting' have come to the surface and become the survival mechanism for many. Pre-COVID practices and routines are giving way to a fresh perspective. What made sense yesterday may still carry today, but everything is under review and with it the consequences of such actions.

Investors too are learning to adjust, some still clinging to the past while others are more tentative of the path ahead. Businesses are not so lucky. Profound changes are afoot, helping to accelerate activity in some quarters while quickening the demise of others.

It is easy to take what we know today and extrapolate a whole raft of outcomes. Already we have read of how changes to daily life post-COVID will impact well accepted norms, be they the office working environment, travelling or face-to-face meetings. It is too early to tell what the long-term outcomes will be and whether we will in fact revert to our old ways.

Some things, however, are more obvious and urgent. The priorities of governments to provide basic public healthcare is now without question. The role of telecommunications, the need for mobility and the necessity to access information anytime, anywhere is no longer just a personal desire but a public need.

COVID-19 has been described as a health induced shutdown. This is true, although business owners, leaders and even employees are now finding their feet again. We described 2020 as the gap year, but in many ways, it is a reset. Put simply, don't put off until tomorrow what you can do today.

In many respects businesses that held off making the tough decisions, either by failing to prudently reinvest their dollars or continuing to rely on leverage while maintaining overly generous dividend payouts, have been finally outed. They have no choice now, because COVID-19 removed the option of time.

Investors will do well to heed some valuable lessons. There is no such thing as a guaranteed return and simply looking in the rear view mirror won't provide the crystal ball answers many now seek. Far better to probe and question on what appears common sense than to be hoodwinked by the unrealistic. To that end, valuing a business by comparing earnings multiples without some greater insight and appreciation of the many moving parts within, is deeply flawed.

COVID-19 will accelerate a host of changes. Among them, is the role of cloud computing as a key enabler for digital transformation. Microsoft CEO Satya Nadella refers to the cloud as *"the world's computer… Mobile devices come and go, but the one thing that won't go away is the broad computing fabric that stitches all this together."*

We are clear in our thoughts that the implications of COVID-19 will quicken the demise of many businesses caught on the wrong side of the economic landscape. Already some lessons are obvious. Companies will need to be leaner, more efficient and have the ability to scale. They need to embrace technology and shift to the cloud just to compete. Dividend payouts need to be kept to a minimum. Company boards must accept the broader responsibility to act as business owners, deploying scarce capital, rather than merely satisfying management egos or maintaining consensus within the investment community. Operating prudently, reinvesting aggressively and reducing reliance on debt is not just sensible, but critical to long-term survival.

In many ways, COVID-19 has been the wakeup call many have needed. For some though, this period simply reinforces what was already known. Take nothing for granted, respect your competitors and approach commercial life with constant paranoia. Companies with the right DNA will thrive coming out of this lockdown because they have a sense of purpose and remain true to their core offering. Businesses like Fisher & Paykel Healthcare, ResMed, Aristocrat Leisure, Cochlear, Flight Centre Travel Group, TechnologyOne, Iress, CSL, ARB Corporation, Seek, Carsales.com, Altium, Nanosonics, James Hardie Industries and Domino's Pizza Enterprises are illustrative of the investments held within the portfolio.

They are chosen with no regard to index weighting. Each possess the qualities described above; operating prudently and reinvesting aggressively, all while maintaining shareholder alignment. Past events like the global financial crisis and now COVID-19 will only serve to shape and reinforce these important qualities even more.

Will gap year 2020 be any different? We don’t think so. ***SFM***

WHERE TO FROM HERE? DEBT.

"It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own self-interest. We address ourselves not to their humanity but to their self-love, and never talk to them of our own necessities, but of their advantages." – Adam Smith

In 1776, moral philosopher Adam Smith wrote his seminal book, An Inquiry into the Nature & Causes of the Wealth of Nations. Smith concluded that capitalism works to bring broader societal benefit as individuals seek to fulfil their own self-interest. Under Smith's model, an *"invisible hand"* guides price discovery to a point where total supply intersects total demand; ensuring resources including labour are allocated efficiently. This view vastly limits the role governments should play in influencing markets.

In modern times, we are accustomed to intervention either by way of central banks controlling the supply of money through short-term interest rates (monetary policy) or through adjustments in government spending (fiscal policy). Left to their own devices, economies tend to overshoot in times of growth and pull back excessively in times of distress, a cycle that governments generally attempt to soften through policy decisions. *The remit of central banks is generally to control growth in such a way that is conducive to employment and limits inflation.*

*In our March 2020 Quarterly Newsletter article "The Fed Listens", we explored how w*ith interest rates now close to zero in many developed markets, central banks have been left without their principal lever over the business cycle. This means that when external system shocks like COVID-19 are present, central banks are left scrambling to encourage economic activity with a greater reliance on fiscal policy to do most of the heavy lifting.

In our recent readings we noted an article, published in the Australian Financial Review profiling Viktor Shvets, a veteran Macquarie Group strategist.[2] Shvets asserts that the government response to COVID-19 is merely the acceleration of the trend towards greater concentration of public powers and ownership, significantly impairing free market signals; a view that closely resembles our own.

The recent actions of the U.S. Federal Reserve (Fed), provides a clear example of this at work as they commenced an unlimited corporate bond buying program. Along with the bond ETFs, the Fed have also commenced purchasing below investment grade bonds where liquidity has become a significant issue.

While this is reminiscent of the actions taken in the GFC, the remit here is significantly larger as the Fed seeks to buoy substantial segments of the market quickly. As the total spend here is unlimited, it is expected to eclipse the US$4 trillion that was injected into the financial system to encourage growth post the GFC. The Fed is effectively acting as the backstop to ensure companies remain solvent during this period of distress, extending the time they have to recover.

While these actions clearly spur markets and provide temporary relief, the question must be asked; at what point will governments stop financially engineering economic outcomes, which are becoming increasingly out of reach? As Shvets explains *"Monetary and fiscal spigots simply open and funds flow. There is however, a price to pay – atrophy of free markets and private sector signals and ultimately further misallocation of resources."*

Having succumbed to the need for debt to spur growth, Shvets now estimates that it takes $4 of debt to generate $1 of GDP growth, a stark comparison to the maximum $1 of debt required back in the 70s. This is a product of time, decades in fact, of governments incrementally taking on more debt in order to satisfy growth rates acceptable to society.

This has resulted in the public sector, the government, being the primary allocator of capital in its drive to deliver on economic growth targets. On any sensible metric we are surely nudging the limits of what is prudent and sustainable.

[2] *Tony Boyd, Australian Financial Review, Lethal virus also killing capitalism (18 April 2020). <https://www.afr.com/chanticleer/lethal-virus-also-killing-capitalism-20200417-p54kq5>*

The notion of clearing out the excesses and allowing dislocations that hit global markets to reset without government interference, is no longer publicly acceptable. Each major event simply reinforces the need for further and deeper action. Shvets notes however that "the alternatives could be worse."

The alternative here being that governments conserve their balance sheet, allowing businesses to feel the full weight of the current downturn. With many businesses unlikely to survive such a significant hit to their profitability, higher *unemployment and lower inflation would be natural consequences. Political suicide to say the least.*

With significant levels of private debt being nationalised, the road ahead is not unchartered but certainly bumpy. The options governments have in terms of managing their total debt levels are limited. They can; default, induce austerity, raise taxes or rely on economic growth and inflation to offset the total liability.

We can appreciate the 'damned if you do, damned if you don't' dilemma governments are currently facing. However, we remain cognisant of the way their actions are impairing market signals.

That said, those looking to governments for investment guidance is not a path we would recommend. Ultimately, taking ownership requires a coherent, sensible strategy. As we noted in our opening letter, we entered this pandemic fully invested and remain so. Our investment approach is one we consistently apply, across all market conditions and centred on a bottom-up, business by business, decision making process.

Those businesses that have succeeded possess a number of consistent qualities. Namely, depth of management, the generation of consistently high returns on capital employed, business scale and accompanying high profit margins and conservative balance sheets. With the passage of time, it is exactly these types of operations that can navigate the economic landscape and deliver long-term growth. ***SFM***

MEGAPORT – ENABLING THE CLOUD

Date	Description
2013	IT industry pioneer Bevan Slattery establishes Megaport, as the first Software Defined Network based provider of elastic interconnectivity services.
Jan 2014	Operations officially commence, launching services in Australia and expanding across Sydney, Brisbane and Melbourne.
Oct 2014	Demerge dark fibre assets to focus on Megaport's global expansion. The separate business unit, called Superloop is also ASX listed.
Feb 2015	Expands internationally into New Zealand, Hong Kong and Singapore. The company strikes deals with Microsoft Azure, Amazon Web Services (AWS) and Google Cloud.
Aug 2015	$10m pre-IPO raise is completed, converting Slattery's debt funding into equity.
Aug 2015	U.S. headquarters established in San Francisco, used as the base for expansion into initial cities of Los Angeles, San Francisco and New York.
Oct 2015	An international 214 license is issued by the Federal Communications Commission, which allows Megaport to provide its services between the U.S. and foreign points.
Dec 2015	Megaport lists on the ASX raising $25m at $1.25 per share, targeting U.S. and European expansion. Slattery becomes Chairman with a 47% interest, alongside CEO Denver Maddux at 7%. The market capitalisation at listing is $87.5m.
Jan 2016	A deal is agreed with Amsterdam Internet Exchange (AMS-IX) for Megaport to be the company's exclusive global elastic cloud interconnection partner. In exchange, AMS-IX will provide their leading internet exchange service to Megaport in their enabled markets.
Jan 2016	An alliance agreement and networking partnership is reached with CyrusOne, the third largest U.S. data centre operator at the time. The partnership will be used to accelerate data centre expansion within the U.S.
Apr 2016	North American network goes live.
Jul 2016	Megaport acquires PEERING GmbH, Germany's second largest internet exchange operator and OM-NIX, a carrier-grade network services provider across Eastern Europe. The European footprint post-acquisitions increases to 57 locations across 13 countries, fast tracking the company's expansion into the region.
Aug 2016	Private placement and shareholder purchase plan collectively raise $30m at $1.70 per share. Funds are used to finance the European acquisitions.
Sep 2016	A partnership is reached with U.S. based Digital Realty, a data centre operator with over 140 data centres. The agreement will result in Digital Realty offering direct access to Megaport's marketplace through their own portal.
Jan 2017	Enters a partnership with EdgeConneX, a data centre operator across North America, Europe and South America.
Feb 2017	Denver Maddux steps down as CEO after two and a half years leading the company. He remained with the business as a strategic adviser to the board. Chief Operating Officer Vincent English becomes CEO effective 1 April.
May 2017	Partnerships are agreed with Alibaba Cloud and Oracle, allowing direct connectivity to both networks.
Jun 2017	A private placement is completed, raising $27.8m at $2.10 per share to fund expansion opportunities. Megaport's key business partner Digital Realty joins the share registry with a $11.4m stake.

Jan 2018	Launches Megaport Cloud Router (MCR), a new virtual router service enabling customers to move workloads and data between cloud service provider environments without the need to own or manage physical routers and infrastructure.
Feb 2018	Steve Loxton joins Megaport as Chief Financial Officer.
Mar 2018	A capital raising is completed for $60m at $3.75 per share. Three cornerstone investors commit to subscribe to over $50m in shares.
Jun 2018	Megaport acquires its 1,000th customer and reaches $2m in monthly recurring revenue.
Nov 2018	CEO Vincent English is granted 2m options with an exercise price of $3.60 at the company's annual general meeting. The options are exercisable up to March 2022.
Jan 2019	North American monthly recurring revenues reach $1m, an 80% increase compared to the prior comparative period. The company now operates across more than 100 data centres in the U.S.
Feb 2019	Jay Adelson is appointed as a non-executive director to the Board, chairing a newly formed Innovation Committee with Founder Bevan Slattery. Adelson co-founded Equinix, the largest co-location data centre operator in the world.
Mar 2019	The company completes a private placement to raise $60m at $4 per share. Chairman Slattery also sells down 5m shares to institutional investors via a secondary offering.
Apr 2019	Google releases a solutions tutorial for Megaport Cloud Router, broadcast at the Google Next Conference. References MCR as a preferred method for connecting their cloud infrastructure to third party cloud providers.
Apr 2019	Megaport Cloud Router 2.0 is released, with the new version to include more features, deeper cloud service integration and wider geographic availability.
Jun 2019	North American business records positive gross profit, while APAC business generates a positive operating profit in FY19.
June 2019	Expands European footprint, launching services in Austria, Finland, Norway, Belgium and Poland.
Oct 2019	Expands partnerships with CyrusOne and EdgeConneX in Europe as well as the expansion of MCR 2.0.
Nov 2019	Megaport launches services in Japan, initially starting in Tokyo and expanding into Osaka.
Dec 2019	The company completes a private placement for $62m at $8.70 per share to accelerate expansion into new locations and markets, undertake capacity upgrades and fund innovation.
May 2020	Capital raising for $72.5m at $9.50 per share is completed to further accelerate sales, product development and platform expansion opportunities.
June 2020	Digital Realty sells down approximately 7.7m shares (5% shares on issue), reducing their stake to 2m shares. The company reaffirms commitment to the strategic partnership with Megaport.

Overview – Cloud technology

The adoption of the cloud has been a powerful thematic driving the paradigm shift from offline to online. Yet having existed for slightly more than a decade, widespread acceptance is still in its infancy. With events like COVID-19 forcing enterprises to rethink legacy infrastructure, the shift to the cloud is arguably only going to accelerate.

We for one are fully aware of this thematic, having experienced the simplicity of the cloud and the disruption it is facilitating across industries. With most things though, adoption takes time and put simply, moving a business to the cloud is not as easy as it seems.

For those of you who don't know, the cloud refers to the on-demand delivery of computing services over the internet. The definition is broad, and with significant innovation across the category, has continued to expand in use cases. At the end of the article, we have added a glossary page to help.

The three main categories of cloud are Software as a Service (SaaS), Infrastructure as a Service (IaaS) and Platform as a Service (PaaS). We won't delve into the details, but just to provide some examples, the cloud enables you to store data online using Dropbox, watch Netflix on TV and develop a new mobile application on the internet.

In 1999, Salesforce introduced the idea of using the internet to deliver their software programs to end users. The company were one of the first adopters of SaaS and cloud computing, developing their own internal systems to deliver their software over the internet.

Today, cloud service providers such as Amazon Web Services and Google Cloud are driving the adoption and innovation of this technology across all manners of society.

These providers deliver infrastructure, application, or storage services online, on a pay as you use basis, offering a suitable alternative to building these requirements internally. This is otherwise known as accessing the public cloud.

In our June 2019 Quarterly Newsletter, we quoted Atlassian co-founder Mike Cannon-Brookes, *"starting a new venture in this day and age has never been easier. The majority of tools required to set up shop can be obtained freely online, and combined with convenient mobile access and cloud computing capabilities, the task of starting and building a business is now more accessible and far less expensive."*

We similarly referred to Scott Farquhar, the other co-founder of Atlassian, in our June 2017 Quarterly Newsletter, who stated, *"About a third of our revenue, give or take, comes from the cloud. There are many companies that haven't yet adopted the cloud and want to choose to run something internally for various reasons. We have invested heavily so we have leading cloud versions of our products…we see the future. In 10 years' time, I would think 90 per cent of our customers will be in the cloud."*

Traditional industries as we know them are being disrupted, as the necessity for significant capital expenditure and platform development costs are diminished. Netflix is an example of this. Having disrupted the DVD rental industry with their online streaming services, the company moved from inbuilt IT infrastructure to AWS cloud computing, opening the doors for global scale and accessibility to a broad set of ready to use services and features.

Accessing cloud service providers

For most small to medium sized businesses, cloud service providers can be accessed via the internet. However, as businesses increase in size and scale, using the internet can be unreliable due to:

- **Lack of security** – data being transmitted over the internet is slow-moving and intermittent, rendering it more prone to cybersecurity threats. For organisations with confidential data or large workloads this is not suitable.
- **Variable speeds** – sharing a public internet connection where speeds are susceptible to disruption and outages is often not an option for enterprises.

Alternatively, organisations can choose to securely connect to the public cloud through data centres, which can either be built for inhouse use or outsourced. The latter, otherwise known as co-location data centres, has become increasingly widespread as organisations reduce their capital expenditure and IT spend, in favour of external data centre operators managing their hardware and network needs.

Data centres are essential for businesses adopting secure cloud connectivity. However, they fail to address various issues, preventing more widespread use. This is where Megaport comes into play.

Background

Megaport was founded in 2013 by Bevan Slattery. Having previously established and run two successful businesses – Pipe Networks, a leading internet exchange provider sold to TPG Telecom and NextDC, a prominent co-location data centre operator in Australia – Slattery is clearly no stranger to the industry.

The formula was almost identical for both businesses; an opportunity was identified through a clear unmet need and was then capitalised on using his expertise, *"I've generally built businesses to solve problems. It started with I couldn't find fibre, so I built it"*.

In a similar vein, Slattery recognised an unmet need in providing elastic rather than fixed interconnectivity for companies wanting to securely connect to the public cloud. With that, Megaport was formed to enable this.

Operations commenced in Brisbane in 2014, with Megaport quickly installing their technology across 26 data centres in Sydney, Melbourne and Brisbane. As the first mover in this space, the company was navigating through unchartered territories, with Slattery later admitting Megaport *"was probably two years too early"*.

Despite this, aspirations soon turned global. In 2015, the company raised $25m at $1.25 per share on the Australian Stock Exchange (market cap $87.5m) to expand into the U.S. and European markets. Slattery retained a 47% interest, along with CEO Denver Maddux holding 7% in the company.

This was the beginning of a period of rapid expansion into 21 countries, 102 cities and 317 data centres. The investment-led focus, which some call a *"land grab"* strategy, is one that requires ongoing public funding, as evident by the $315m raised since listing. Led by current CEO Vincent English, the company has morphed into a clear global leader.

Technology – Software Defined Networking

Megaport provides a real-time, flexible solution for organisations wanting to securely connect between cloud service providers or to enterprises within a data centre. The company uses an approach known as Software Defined Networking (SDN) to support this. Although not a method they invented themselves, Megaport are clear leaders in this space.

Figure 1: What is Software Defined Networking?

Megaport 2017 Strategic Placement presentation

The company refers to its SDN approach as *"a high-performance software layer overlaid onto our global architecture. Our SDN brings together an ecosystem of top enterprises and service providers around the world allowing you to directly connect to any of them."*

To explain software defined networking in simpler terms, we break down and describe each word in reverse order:

1. *Networking*
   Refers to the physical setup process, where the company installs their hardware and establishes fixed interconnectivity within data centres. In certain data centres, Megaport establishes a direct connection to major cloud service providers, through what is called a cloud on-ramp. The networking step physically interconnects the ecosystem of data centres with cloud service providers.

2. *Defined*
   Ensures the data being transferred across the physical network follows a dedicated path and turns up at the location it needs to, unlike the internet where packets of data are traversed on a best efforts' basis. The defined feature facilitates elastic connectivity, as it allows Megaport to reliably transfer data almost instantaneously.

3. *Software*
   Known as the online user interface or portal where customers can integrate, run and manage their connectivity requirements. The software, developed in-house, is layered across Megaport's physical network (as described above) and seamlessly connects each party within their network ecosystem.

   Megaport's software provides customers access to their entire ecosystem via an online web portal, mobile app or through APIs. Capacity requirements can be adjusted, using the software on an as needs basis, in real-time or within 60 seconds. CEO English describes the process like *"ordering Netflix or downloading a song".*

By physically interconnecting an array of data centres and cloud service providers, Megaport are facilitating the complex networking that would otherwise be required by organisations. The software layered onto their physical network allows them to on-sell this ecosystem to customers online. For this reason, Megaport is considered a Network as a Service (NaaS) provider.

Table 6: Connectivity Options

When planning your digital transformation, and specifically looking at connecting to cloud providers and their solutions, you have a few main options for connectivity:

Connectivity type	Pros	Cons
Public Internet	• Cost effective and highly accessible	• Unpredictable performance • Difficult to maintain a high level of security
Direct cloud provider connection	• A very fast, secure, and reliable connection to your chosen cloud partner	• Requires managing a separate connection to each cloud provider • Can carry high setup costs • Difficult and costly to provision • Need to be within reach of an on-ramp to your chosen cloud
SDN-based Private direct connection	• Integrates with direct cloud provider connections to provide these benefits but has the ability to connect to multiple clouds on one platform • On-demand and pay-as-you-go	• Some providers don't have a truly global reach to enable global connectivity

Megaport The Digital Transformation Advantage e-Guide

Traditional connectivity

SDN has only recently become the alternative for organisations connecting to cloud service providers. Table 6 above describes the two other viable methods.

As noted, accessing the public cloud through an internet connection is often unreliable from a security and speed perspective. Instead, enterprises have traditionally endeavoured to set up direct connections to cloud service providers via their own on-premise data centre, or through co-location data centre operators. This is the preferred method as it provides a fast, reliable, and secure connectivity that the public internet does not.

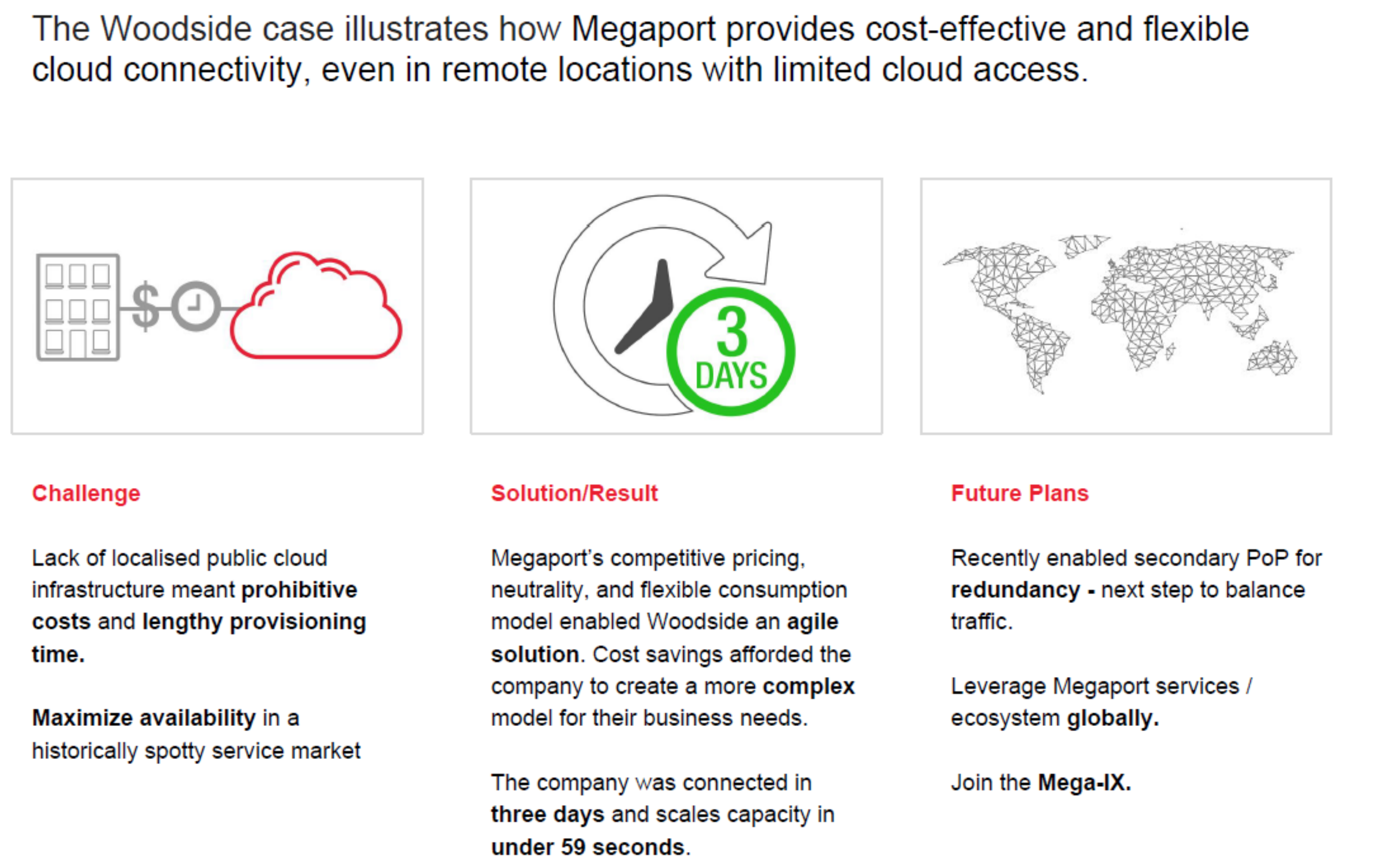
This approach requires organisations to establish separate fibre optic connections to each cloud service provider. These connections are usually purchased from telecommunication providers (telcos) on fixed contracts, and often have long lead times of 3-6 months for installation.

For enterprises with data centres in remote areas, it can often be a challenge reaching the on-ramps of certain cloud service providers. These circumstances would generally necessitate establishing another physical presence closer to the cloud on-ramp location. Co-location data centre operators have been successful for this reason, as a means for expanding into a new region without the excessive investments necessary in building a personal data centre.

Figure 2 highlights the challenge Woodside Petroleum, a $22b Australian oil and gas company based in Perth, had in directly connecting to the secure public cloud.

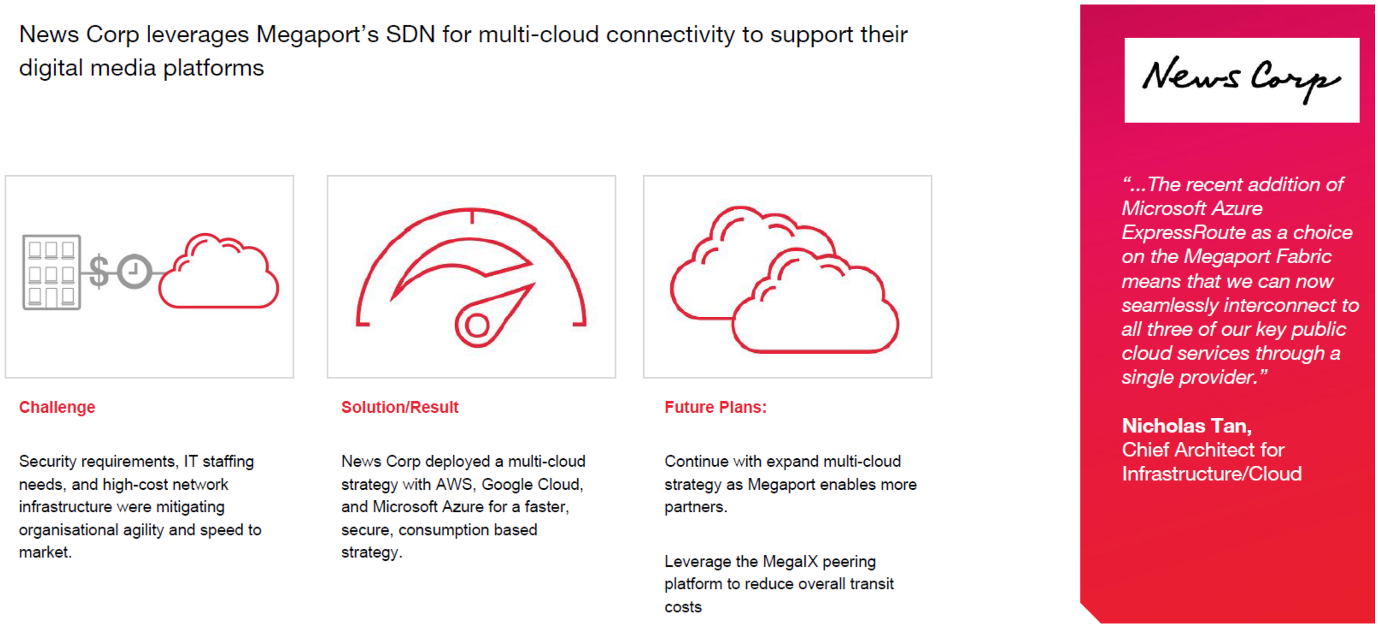
At the same time, organisations are increasingly moving to a multi-cloud environment, using multiple cloud service providers within a single network architecture. Although the traditional direct connectivity model can facilitate this, the process is often complex and expensive to provision and manage and thus can be a barrier for organisations.

Figure 2: Woodside Petroluem Use Case



Source: Megaport 2017 Strategic Placement Presentation

Figure 3: News Corp Use Case



Source: Megaport 2017 Strategic Placement Presentation

The need to commit to a long-term contract, while ensuring the speed and capacity agreed upon is correct is also an impediment to multi-cloud. Organisations have the dilemma of either overpaying now or choosing to break the contract in the future at a high cost.

Figure 3 highlights the challenges News Corp had when scaling their multi-cloud strategy.

The alternative – SDN

Megaport is by no means the superior solution and its aim is not to displace the direct connectivity model. For enterprises seeking extremely fast connectivity to a cloud service provider, a direct connection is most appropriate.

Through their diverse ecosystem, Megaport instead aims to assist enterprises with a simple, flexible and viable alternative solution. The SDN based technology removes the complexity in the process, enabling a greater array of connectivity options for enterprises with various issues either preventing them from adopting the public cloud or expanding within the cloud.

Megaport re-sells port connections to enterprises, providing access to their vast ecosystem of service providers and data centre operators, known as the Megaport fabric. Once a port is provisioned, a customer can log into the online user interface and add new services in real-time.

Customers are then able to elastically adjust capacity based on their own usage levels. Contracts are flexible, on a month-to-month basis, and priced based on daily usage. This compares with the fixed nature of the direct connectivity model.

The simplicity of Megaport's solution renders it a suitable alternative for the complex and capital-intensive direct connectivity approach. For example, it can be deployed to complement an organisation's existing cloud network, by potentially adding an additional cloud service provider in a new location. There are various other use cases for Megaport's services, which we discuss below.

Table 7: The Leader in Network as a Service

	Megaport's Connectivity Model	Traditional Connectivity
Pricing	Pay for what you use, no setup fees	Expensive locked-in pricing model, expensive setup costs
Speed	Real-time provisioning (59 seconds)	Long setup times (one week – several months)
Capacity	Elastic, right-sized capacity	Fixed capacity
Terms	Flexible terms, month to month contract	Locked-in long term contracts
Providers	Neutral, one-stop shop featuring all service providers	Limited service providers
Ease of Use	Intuitive portal to manage network	Multiple emails, calls to vendors, and contracts

Megaport April 2020 Investor presentation

The agnostic player

Megaport remains an independent player within the cloud ecosystem, providing a unique value proposition for each connected party, as highlighted below:

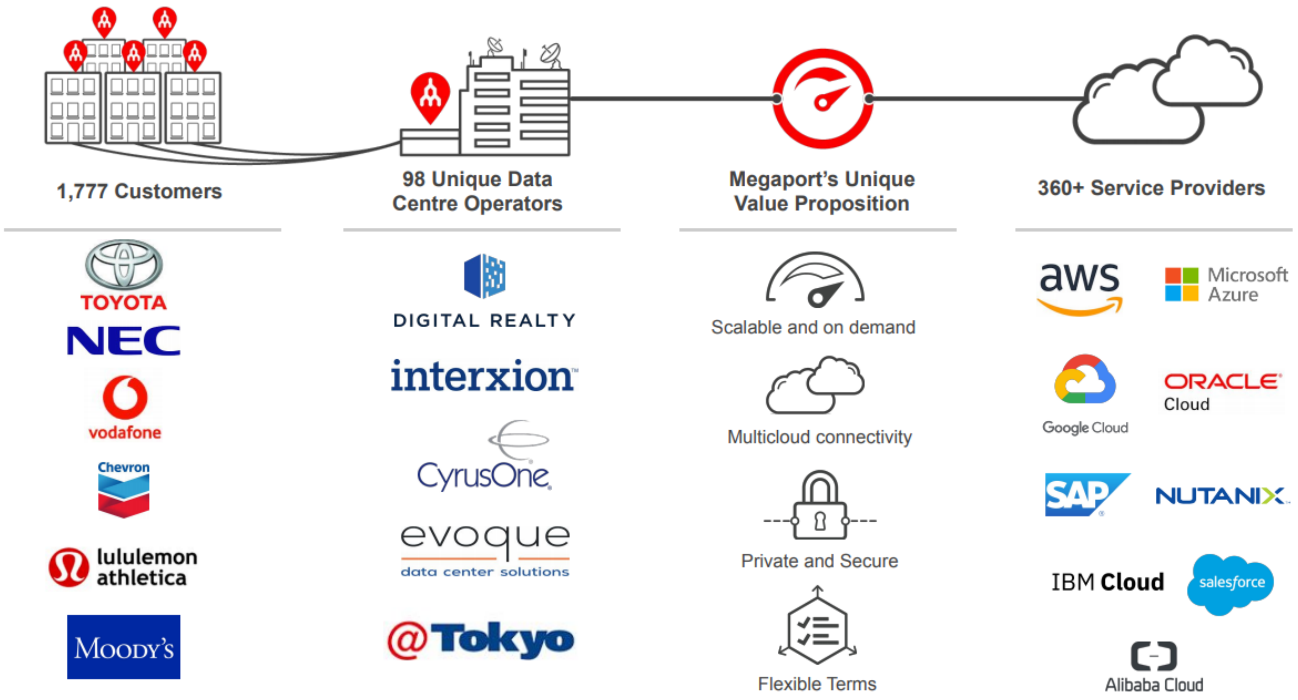
- **Cloud service providers** – the main pain point for these large hyperscale providers is not being able to provide widespread access to their cloud on-ramps. For enterprises either located in remote areas or data centres without access to the on-ramp, direct connectivity is difficult. Megaport alleviates this problem, with their reach across 98 unique data centres, 21 countries and 102 cities, expanding the total addressable market for the service provider.

- **Data centre operators** – likewise for data centre operators, they may not have access to the on-ramps of a range of cloud service providers. Megaport's network of over 360 service providers and 156 cloud on-ramps addresses the connectivity shortfalls that most data centre operators have.

- **Telecommunication carriers** – these provide the fibre optic connectivity that facilitates the Megaport fabric. Despite Megaport on-selling this connectivity, it only represents a minimal portion of telco's total revenue generated within data centres.

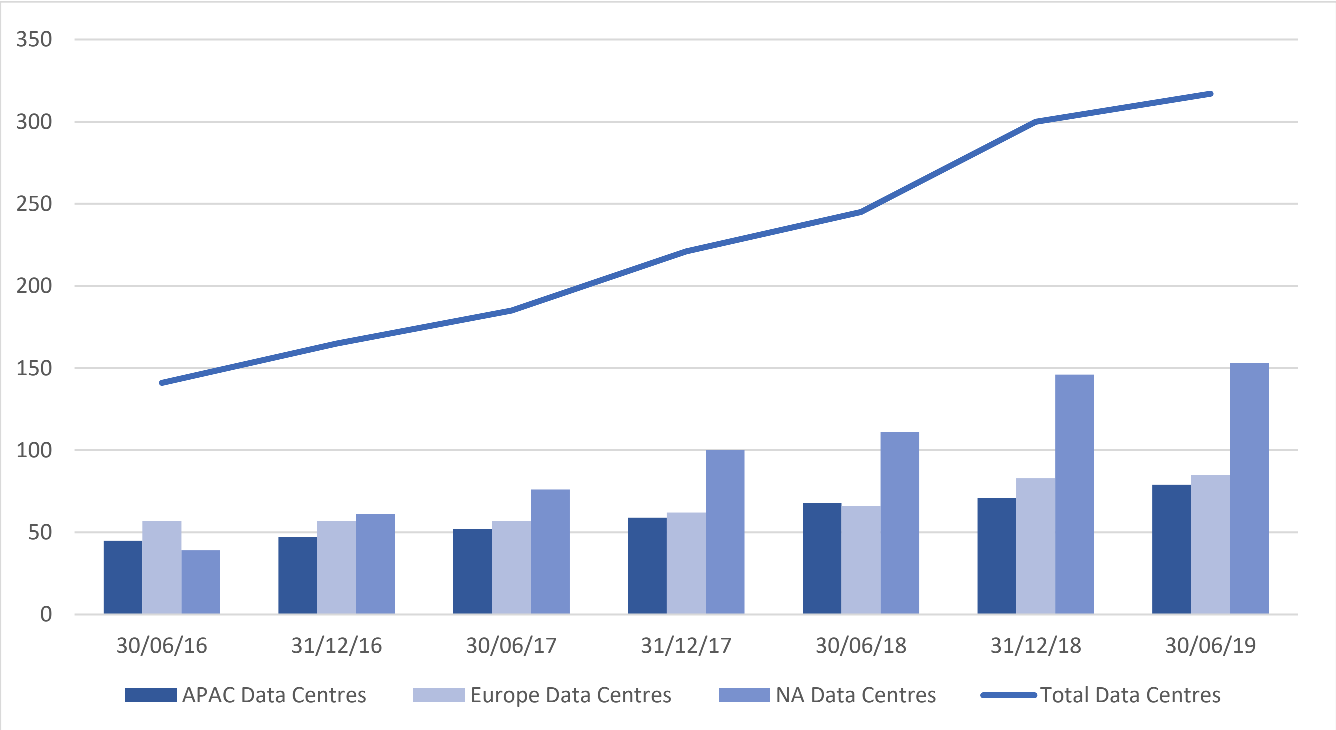
Megaport's unique value proposition allows the company to seamlessly expand its fabric across the largest data centre operators and cloud service providers. With the scale achieved, Megaport can provide its fabric to a wider range of enterprises and offer connectivity to a diverse selection of cloud service providers.

Figure 4: Connecting the ecosystem



Megaport April 2020 Investor presentation

Table 8: Megaport's data centre growth



Source: SFML Research

Data centres

Growing its network presence across new countries, cities and data centres has underscored management's strategic focus. To date, the group has invested significantly in pursuing this aspiration.

Table 8 above illustrates Megaport's progress, with the company rapidly targeting North America growth, given the size of the cloud opportunity. The company added a total of 80 data centres in FY19 and expects to achieve a similar number this financial year.

Unit economics

Megaport's business model offers attractive unit economics once scale is achieved. See below:

1. **Capital expenditure** – incur on average $35,000 in costs to deploy a complete networking solution in a data centre. Megaport can add additional rack space for around $10,000 as port utilisation increases.
2. **Direct costs** – expenses on average total $6,900 per month in direct network costs per data centre.
3. **Ports** – sell port connections to customers for around $500 per month.
4. **Services** – once a port is connected, customers can purchase virtual cross connections (VCC) to link to additional services. Prices for VCCs can vary based on distance, but typically cost $100-$200 per month.

The unit economics of the business model are appealing. The company incurs reasonable upfront capital expenditure. Once installed, Megaport needs to sell approximately 14 ports to breakeven from a gross margin perspective. Since it is essentially cost free for the company to add ports and services, Megaport can attain high gross margins as port utilisation increases.

The APAC business is reflective of the margin potential achievable. At the half year 2020 result, the region had on average 27 ports per data centre, with the average customer generating monthly revenues of $2,300. With port utilisation at 45%, the region still generated gross margins of 72% while delivering an operating profit.

If the company stopped investing for growth, Megaport could operationally achieve profitability much sooner. However, management are pursuing the opportunity ahead of them, having increased their direct sales team from 16 to 32 in 2019, while also working with existing and potential new indirect sales channels to further their reach. Megaport are also expanding across new geographies, with aspirations to grow into South Korea, Mexico and South America.

The company is prudently investing for the long-term, with the goal of enabling better global secure cloud connectivity.

Table 9: Megaport's Operating Metrics

Operating Metrics	**FY16**	**HY17**	**FY17**	**HY18**	**FY18**	**HY19**	**FY19**	**HY20**
Customers	314	621	738	860	1,038	1,277	1,490	1,679
Ports	736	1,479	1,829	2,259	2,755	3,344	4,069	4,863
Services	1,500	2,768	3,764	5,041	6,567	8,735	11,561	13,914
Ports per customer	2.3	2.4	2.4	2.5	2.5	2.4	2.5	2.6
Services per customer	4.8	4.5	4.9	5.5	5.9	6.3	7.1	7.5

Source: SFML Research

Table 10: Megaport's Financials

Financial Metrics	FY16	FY17	FY18	FY19	HY20
Revenue ($m)	2.7	10.7	19.8	35.1	25.9
Direct costs ($m)	(4.2)	(11.2)	(15.3)	(23.1)	(12.7)
Gross profit ($m)	(1.5)	(0.6)	4.5	11.9	13.2
Gross profit margin	**(57.4%)**	**(5.4%)**	**22.7%**	**34.1%**	**50.9%**
Operating Expenses ($m)	(16.9)	(23.2)	(26.6)	(36.6)	(23.4)
Normalised EBITDA ($m)	**(18.4)**	**(23.8)**	**(22.1)**	**(24.7)**	**(10.3)**
Capital expenditure ($m)	(6.7)	(7.7)	(16.2)	(18.1)	(11.1)
Monthly Revenue per port $	418	667	720	887	936
Monthly Revenue per customer $	981	1,626	1,927	2,416	2,740

Source: SFML Research

Financials

Table 9 and Table 10 show the solid growth achieved across both operational and financial metrics since 2016. Customers and ports have steadily risen, reflected by the ports per customer figures.

The expansion of services utilised per customer has driven the uptick in revenue. Management expects this trend to continue both as customers become more attune to the platform and as the Megaport fabric expands its network into new cloud on-ramps and geographies.

The group's financial metrics have been consistent with their investment-led strategy. Although operating leverage has been achieved as data centres mature, Megaport has invested significantly in sales, product development and platform expansion to pursue greater revenue opportunities.

This has seen the company re-invest considerably over recent years, including cash in excess of $40m in FY19. Despite this investment, the company expects to exit FY21 in a positive EBITDA position. Further, Megaport has indicated this will extend to achieving cash flow breakeven status as it exits FY22. With approximately $180m in cash following the recent $72.5m capital raising, Megaport has ample headroom to reach breakeven status while being able to invest in additional opportunities should they arise.

Megaport Cloud Router (MCR)

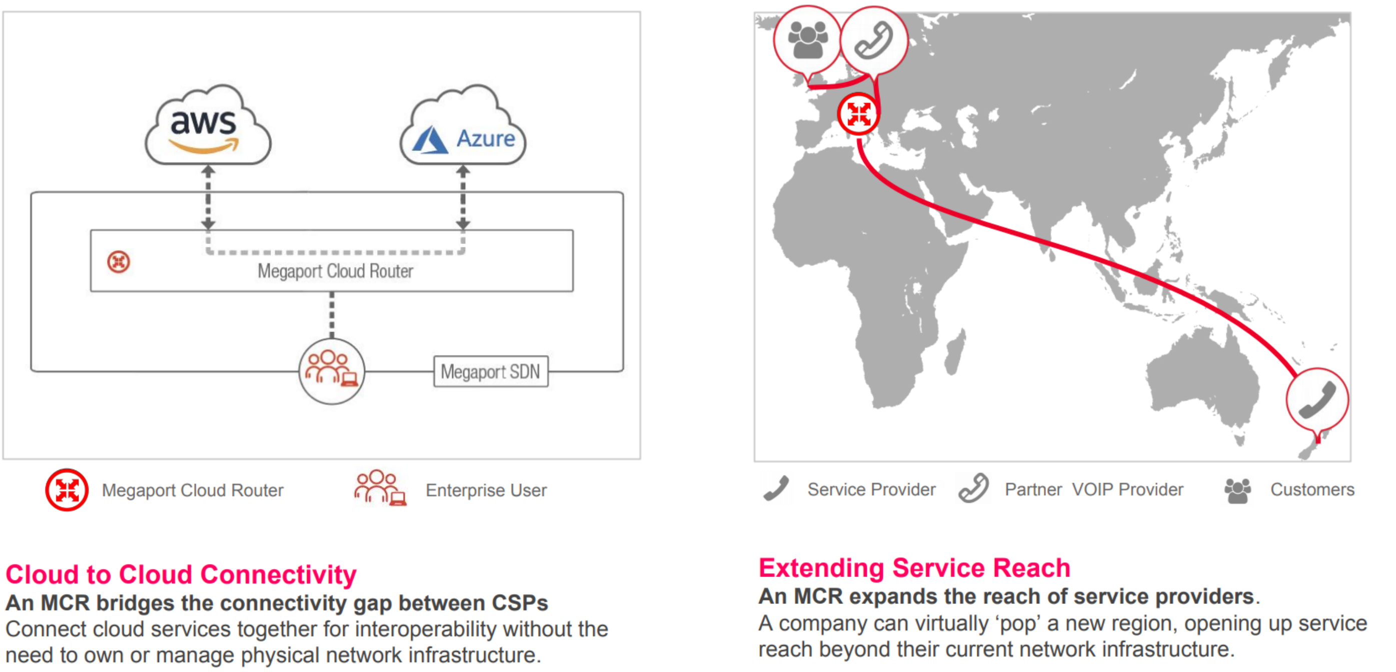
In January 2018, the company released the Megaport Cloud Router (MCR), a new software suite offering that further simplifies the cloud connectivity process.

The transfer of data across cloud service providers has historically required workloads to be diverted to the company's physical infrastructure first. MCR simplifies the multi-cloud journey by enabling the movement of workloads and data between cloud service providers virtually, without the need for private physical infrastructure. For example, a company based in Perth can deploy and interconnect multiple cloud service providers in Sydney, without installing any physical presence in Sydney.

Additional time efficiencies can be achieved as MCR reduces the points needed to transfer data to.

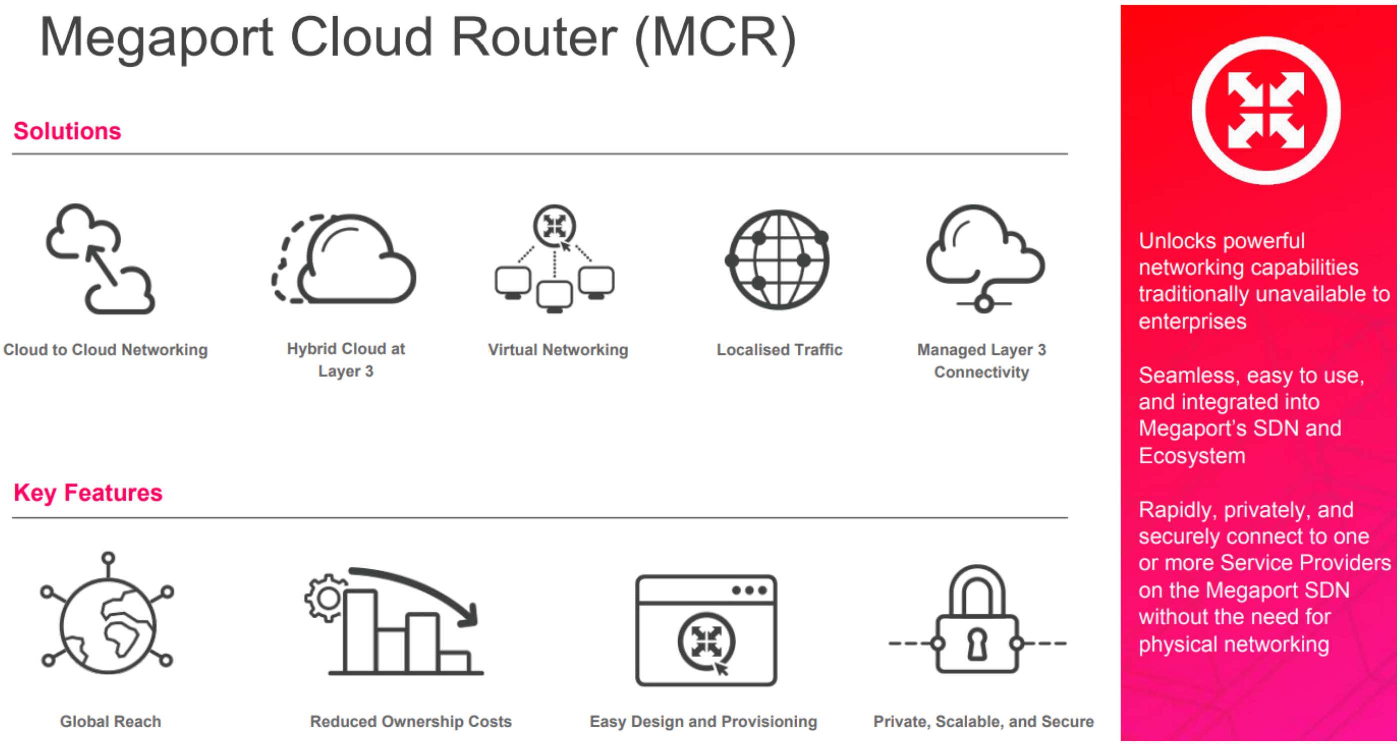
The value proposition is clear. By alleviating the need for physical infrastructure, MCR further simplifies the secure cloud connectivity process and allows companies to expand their own service footprint through virtual points of presence. In doing so, potentially opening up the addressable market for global companies and smaller businesses.

Figure 5: MCR key use cases



Source: Megaport FY18 Half Year Market Update

Figure 6: MCR's solutions and features



Source: Megaport FY18 Half Year Market Update

The company has been first to market with MCR and their vast ecosystem has made them a clear leader in this space. Megaport has since released MCR 2.0 with further features and capabilities.

In 2019, after experiencing initial positive results in APAC, management expanded MCR across their global network. For a city to be MCR enabled, Megaport deploys the MCR equipment and software across two separate sites, costing approximately $17,000 for each site.

Once enabled, the company sells MCR ports for $500-$2,000, based on speeds of 1Gbps-10Gbps. MCR is priced at a premium to regular ports, as management has sought to align price to the higher value offered. The company has indicated MCR delivers over 90% gross margins.

Early results have validated the value proposition, with around 15% of customers now adopting MCR. On a per month basis, the average MCR customer spends $4,711 and consumes 13.5 services. This compares with the average non-MCR customer who spends $2,473 and utilises 7.8 services.

MCR is already proving to be valuable, with the first customer in Japan using Megaport's services purely for the virtual router capabilities. As the product continues to mature and improve, the company expects a network effect to result with software engineers helping spread the word online.

The opportunity is significant with MCR, as management considers skewing more investment towards product development. With MCR, Megaport can begin to service new addressable markets and explore additional opportunities, including software defined wide area networking (SD-WAN), which enables enterprises to securely connect to applications through the internet.

Competition

Since launching the first SDN based elastic interconnectivity service, Megaport has seen new entrants come to market. The most notable direct competitor is PacketFabric, having launched around 2016 with connectivity across 150 data centre locations, predominantly in the U.S.

The company is backed by private equity and in 2019 received new joint venture funding of US$75m. Expansion has slowed since launching, with the company now enabled in 188 data centre locations with a global presence across Australia, the U.S. and the U.K.

In 2019, PacketFabric announced a partnership with PurePort, giving the company access to its network of data centres. PurePort offers a multi-cloud router, like that of Megaport's MCR.

PacketFabric evidently lacks the geographic reach and diverse ecosystem that Megaport offers. Management have stated they rarely encounter PacketFabric in the markets they operate in.

Alternatively, some data centre operators provide customers with their own elastic interconnectivity services. The largest provider in this space is Equinix, an operator of more than 200 co-location data centres across 25 countries. The company launched their Equinix Cloud Exchange (ECX) fabric in 2017 to support customers with flexible connectivity across their own vast network.

Equinix's scale has enabled them to diversify quickly into this space, and now connects more than 2,000 customers. As a result, the highest growing segment within the business is the interconnectivity category. This reiterates the value in offering real-time, elastic interconnectivity rather than fixed connectivity to cloud service providers.

Although Equinix have successfully integrated SDN into their own ecosystem, they cannot offer the same diverse network of cloud service providers that Megaport delivers. Further, enterprises in alternative data centres cannot connect to Equinix's fabric. Megaport, as an independent SDN provider with a large cloud ecosystem, can overcome these issues.

Its differentiation in the market is backed by the fact that major global data centre operators, such as Digital Realty and CyrusOne have chosen to partner with Megaport, instead of setting up a competing SDN service. Digital Realty, a US$36b real estate investment trust operating around 200 data centres, enables Megaport's services through their own platform via an application programming interface (API). The partnership leverages Digital Realty's customer base and reinforces the value of scale and independence that Megaport provides.

Valuation

In 2019, Gartner estimated enterprise cloud service spend to be US$214b, growing at 15% per annum over the medium-term. In addition, 84% of enterprises deployed a multi-cloud strategy.

Equinix has a market capitalisation of US$60b, and in FY19 generated revenues of US$5.6b and income from operations of US$1.2b. Comparatively, Megaport has annual recurring revenues of $55m and a market capitalisation of $2b. As an enabler for secure multi-cloud connectivity, Megaport has ample opportunity to attain a greater share of the total market.

Innovation

As Megaport operates within the fast-growing cloud computing industry, it remains integral for the company to remain agile and open to new technologies. In response, an Innovation Committee was established in 2019.

As an original co-founder of Equinix in 1998, board member Jay Adelson heads the committee and is joined by Slattery to investigate and explore new strategic areas where the group's cloud ecosystem can be expanded.

For example, the company is exploring a new service offering that leverages the company's vast network infrastructure, without the need to expand the number of data centres connected. Management is yet to publicly comment on this offering other than it involves SD-WAN providers.

Summary

As the leading provider of SDN based elastic interconnectivity, Megaport is poised to benefit as enterprises transition to secure cloud connectivity.

The company has established a superior competitive moat, built around a continuous investment ethos aimed at expanding the network, products and sales capabilities.

Combined with the company's independence, this offers a unique value proposition for all parties within the cloud ecosystem.

The company remains well funded and is managed by a strong and aligned executive team and board. Strategy and execution will be important future indicators and based on the team's proven track record, we are confident Megaport can continue to grow the business by enabling the cloud. ***SFM***

Table 11: Glossary

Term	Description
Cloud on-ramp	A private direct connection to a major public cloud provider.
Cloud Service Provider	Companies that provide a component of cloud computing to customers such as Amazon Web Services and Microsoft Azure.
Data centre	Physical or virtual infrastructure used by enterprises to house computer, server and networking systems and components for the company's IT needs.
Multi-cloud	An environment where an enterprise uses more than one cloud platform that each delivers a specific application or service.
Port	A physical Ethernet link from the customer to a Megaport carrier rack in a data centre. Once a port has been established, the connected unit has access to Megaport's fabric.
Public Cloud	Computing services offered by third-party providers (such as Amazon or Microsoft) over the public internet, making them available to anyone who wants to use or purchase them.
Private Cloud	Cloud computing services offered over the internet or a private internal network to selected users only, instead of the general public.
Virtual Cross Connect	A point-to-point connection between two entities provisioned via a software defined network.

Source: SFML Research

GRAVY TRAIN

We profess to know very little about Kogan and have never met management. However, as a pure-play online retailer it is definitely operating in the right space, particularly at a time where most of its bricks and mortar competitors are struggling. What caught our eye was not the seemingly strong popularity of its online offering, but the actions of the board to further remunerate founding executives Ruslan Kogan and David Shafer, who held 70% and 30% respectively prior to its listing.

We are strong supporters of founder-led businesses, as well as their individual rights to sell down their shareholdings within appropriate governance settings. It is also customary to undertake and implement annual remuneration reviews for key executives utilising both cash and equity.

At the time of its listing onto the Australian Stock Exchange in July 2016, at the offer price of $1.80 per share, the business was valued at $168m. The two founders controlled a combined 64.9m shares, or 69.6% of the company. Fast forward to the company's September 2019 annual report, both Kogan and Shafer remained among the top three shareholders, holding 22.5% and 8.6% respectively, or a combined 29.2m shares. While the total number of shares has remained consistent since listing, Kogan and Shafer have sold down significantly for both personal reasons and to satisfy investor demand.

No problem here. Yet on 12 May 2020, Kogan provided a business update and proposals for a new long-term incentive plan for its CEO Kogan and CFO Shafer. The three non-executives of the company felt it appropriate and prudent to offer new equity offers to these executives.

As Chairman Greg Ridder outlined in the release, *"Ruslan and David are outstanding business leaders. They have been fundamental in building and growing the high performing company we see today, and shareholders have been rewarded with an exceptional return on their investment since IPO. Recent performance of the Company highlights the solid foundations of our business – with strong customer appeal, multiple revenue streams, diverse supply chains, and world-class proprietary systems and processes. The proposed LTI grant (which will be by way of options over ordinary shares) involves at-risk equity with an additional service condition of at least three years. Other than usual annual reviews, no changes to the modest fixed remuneration of Ruslan and David are proposed. The Remuneration Committee has received advice from an independent expert and believe that the proposed option grant will generate long-term shareholder value. We believe the grant is in the best interests of all shareholders."*

Subject to shareholder approval, the company is offering long-term incentives of 3.6m and 2.4m options converting to shares, with a three-year vesting period out to 2023 and other conditions yet to be announced.

On balance this appears acceptable, given the considerable commercial success of the business since listing and the outstanding share price performance, which at the time of the 12 May release stood at $8.85 per share.

But the proposed equity price was predicated on looking back in time. In this case, the board set the price based on a three-month volume weighted average price (VWAP), ending 30 April 2020.

Enter COVID-19. With markets in a tailspin, the price of Kogan shares during this period of February, March and April ranged from a low of $3.84 to a high of $7.99 at April end. Early indications suggest the company will seek shareholder support for the issue of $32m worth of immediately in-the-money options. Based on the financial year close price of $14.72, this would have a market value of $88m. Although still subject to the 2023 timeline for exercise purposes, this would provide an unrealised gain of $56m.

The company states *"the proposed option grant will generate long-term shareholder value",* but for who? Why would these executives require any more motivation in the business than what their existing combined 31% stake would already provide?

Clearly there is an issue here. As an online business, sales data is known daily. The update on 12 May relating to the group's trading performance for April was in all probability, going to be good. In fact, the update spoke glowingly of the twelve-month comparable performance, with gross sales up 100%, gross profit up more than 150% and adjusted earnings before interest tax, depreciation, and amortisation (EBITDA) up over 200%.

Surely the board and executives were well aware of the group's sales performance heading into the early part of May, as they considered the merits of proposing an additional 6.4% equity dilution via the issue of in-the-money options.

As expected, the company again updated investors on 5 June and confirmed the strong and positive trading performance observed in April had indeed extended into May, when compared to the prior period in 2019.

Investors were happy, with the share price shooting north to end the financial year at an all time high of $14.72, valuing the business at $1.5b.

The question for shareholders is, why pick the lowest share price trading period in the market, dramatically disrupted by the events of COVID-19, to set an option price in rewarding its two major and founding executives?

Why not pick the period from 1 January 2020 to 30 June 2020 as a fairer period, allowing for COVID-19?

Suffice to say we are not investors in Kogan. The ethical question here is why others would be so supportive of governance practices that are not of a higher standard.

We wish existing investors well.

P.S. In June, the company took the opportunity to raise new capital for the first time since listing. Under the $100m placement, Kogan will issue 8.7m shares at $11.45. A $15m offer to retail shareholders was also made available. The two founders chose not to participate in the institutional raising. Why would you when you can pick them up at a fraction of the cost. ***SFM***

FAIR WORK OMBUDSMAN NOT SO FAIR

Buried on page five of The Australian newspaper on 20 June 2020, the headline reads *"ABC sorry for underpaying casuals $12m"*. It tells of an investigation into the ABC by the Fair Work Ombudsman, which found a total of 1,907 ABC employees were underpaid to the tune of $12m, between October 2012 and February 2019.

The ABC has entered an enforceable undertaking with the government regulator, having now returned $11.9m, and agreeing to make a $600,000 contrition payment to the Commonwealth Government.

It's perhaps worth noting here that the ABC is a government owned enterprise funded by taxpayers. The taxpayers are now making a contrition payment from one government entity to another, being the Commonwealth.

In an era of gross underpayments that has included the likes of Woolworths ($390m) and Wesfarmers ($24m), surely more is required here than just a $600,000 penalty payment from one government enterprise to the other, all funded by taxpayers.

Surely there is more. Surely management have been fired and those who failed to do what's right are now publicly exposed and are contributing for their lack of due diligence. Surely there is the opportunity for greater individual recourse from the 1,907 employees who have been short-changed. Surely there is the possibility of court prosecution or disqualification of individuals. There has to be more than just a public acknowledgement and a piddling amount that is the government's money anyway.

And *why* might you ask? Because that is what public companies and directors are exposed to each and every day. It is also right and fair that such scrutiny is applied.

When the media finds a story and beats it up to a frenzy, the damage is on the front page and lawyers are keenly lined up ready to push out another class action. And all for a good cause, of course.

Post the uncovering of the Woolworths payment scandal, Fair Work Ombudsman Sandra Parker (perhaps they should rename this to Ombudsperson) called out, *"The Fair Work Ombudsman will conduct an investigation in relation to Woolworths's self-disclosure and hold them to account for breaching workplace laws. Lately, we are seeing a disturbing number of large corporates publicly admitting that they have underpaid their staff. Some of these matters go back many years and several comprise millions of dollars owed to workers. This is simply not good enough. It is particularly concerning that many of these corporates have enterprise agreements in place that they negotiated but then failed to properly uphold the minimum standards. These sorts of careless missteps by business can be costly, often running up into the millions of dollars across an entire workforce."*

Further, Ms Parker warned employers that *"admission is not absolution"* and prosecution could follow if wrongdoing is admitted. The Fair Work Ombudsman has so far not accepted the company's apology, with court action now a real possibility.

The Federal Government Attorney-General Christian Porter also added to the discussion, *"Like most Australians, the government has been appalled by the number of companies that have recently admitted short-changing their staff. It is clear to me that more still needs to be done to motivate companies to improve their performance, such as disqualifying directors of organisations that continue to get it wrong."*

Unfortunately, governments and their departments seem devoid of the responsibilities they themselves carry, applying one rule for the masses and another for those found within the confines of Commonwealth funded organisations. Naming and shaming is so easy when applied in such an offhand fashion.

One final point to leave you with. The ABC incident certainty puts into perspective the damming rebuke Domino's Pizza Enterprises received at the hands of the media, as it undertook an investigation into alleged underpayment practices at both corporate run and franchisee operated stores. Following an 18-month review by the Fair Work Ombudsman, Domino's announced in 2018 that across the selected and audited stores, compromising some 600 employees, an amount totalling just under $2,000 of wage underpayment was uncovered. Not perfect, but certainly an outcome that few in the media espoused or expected. ***SFM***

CARBON EMISSIONS – A DIRTY WORD

We had intended to include this article in our March 2020 quarterly newsletter. However, COVID-19 forced our hand, as investor attention shifted to the immediacy of its impact.

That said, the enforced global economic shutdown will be studied carefully, alongside its impacts on carbon emissions and the general environment. We suspect that in the fullness of time, this topic will once again dominate community and business discussion.

The Blackstone Group

In 1988 Larry Fink joined Blackstone, an emerging investment firm led by co-founder Stephen Schwarzman. Fink's specialty was in packaging mortgages and trading them like securities. A jointly owned business venture named Blackstone Financial Management was subsequently formed. At that time mortgages were the second biggest asset class in the world after U.S. Treasuries, providing a fertile ground for growth.

In 1994, following the sudden surge in short-term interest rates, later referred to as the *"great bond massacre"*, Fink's mortgage backed funds felt the full brunt of the sell-off. The mutual decision to part with the company and sell the business to PNC, a medium-sized bank based in Pittsburgh, was agreed upon in that same year.

A new entity led by Fink was reborn and renamed BlackRock. Today, BlackRock is the world's largest asset manager, with some US$7t in assets under management. Investment solutions include traditional product structures involving individual and institutional accounts, as well as the industry leading iShares Exchange Traded Funds (ETFs). The business is listed on the New York Stock Exchange with a market capitalisation of US$83b.

Such is the investment clout of BlackRock, that its actions carry considerable force. For this reason, the 14 January 2020 CEO annual letter to the chief executives of the world's largest companies delivered a powerful directive. CEO Fink announced the firm would make investment decisions with environmental sustainability as a core goal, describing climate change as a defining factor in companies' long-term prospects. *"Awareness is rapidly changing, and I believe we are on the edge of a fundamental reshaping of finance. The evidence on climate risk is compelling investors to reassess core assumptions about modern finance,"* Fink wrote in the letter.

Accordingly, continuing to ignore such genuine concerns carries deep consequences. As Fink outlines, *"because capital markets pull future risk forward we will see changes in capital allocation more quickly than we see changes in the climate itself. In the near future – and sooner than most anticipate – there will be a significant reallocation of capital."*

This identified challenge will require a change in investor mindset. The shift to a new model for corporate governance has been an ongoing focus for BlackRock. Rather than a point in time discussion focused on quarterly results or annual events, a new model built around long-term thinking must be on the table, a point which Fink is keen to make, *"If engagement is to be meaningful and productive – if we collectively are going to focus on benefiting shareholders instead of wasting time and money in proxy fights – then engagement needs to be a year round conversation about improving long-term value."*

This notion of business engagement goes further. For this reason, companies are being asked to better define their strategy for long-term growth. BlackRock too has evolved in its thinking and approach to this issue, identifying business sustainability as its new standard when reviewing the management of its circa US$1.7t of discretionary active funds.

In this year's letter Fink puts climate change front and centre, addressing the impact it will have on business sustainability as a whole, *"not only in terms of the physical risk associated with rising global temperatures, but also transition risk – namely, how the global transition to a low-carbon economy could affect a company's long-term profitability."*

The early implications of this new approach are now in full view, with the thermal coal sector being one such casualty. As the company explains, *"Thermal coal is significantly carbon intensive, becoming less and less economically viable, and highly exposed to regulation because of its environmental impacts. With the acceleration of the global energy transition, we do not* *believe that the long-term economic or investment rationale justifies continued investment in this sector."*

As a result, BlackRock will be exiting discretionary active investment portfolios, all companies that rely on thermal coal production for more than 25% of their revenues. For its index funds, however, BlackRock will remain invested for as long as those companies remain in the relevant index.

Simply reallocating capital doesn't directly address the issue at hand. What BlackRock also highlights is that the scale and scope of government action worldwide on this matter will generally define the speed with which the world moves to a low-carbon economy. Further, as much as society is pushing for the removal of fossil fuels and other harmful hydrocarbons, the stark reality is that cost-effective replacement technology does not yet exist.

Fink illustrates the challenging task at play, *"We don't yet know which predictions about the climate will be most accurate, nor what effects we have failed to consider. But there is no denying the direction we are heading."* What is perhaps clearer are the consequences of no action and the financial penalties imposed by investors, *"Over time, companies and countries that do not respond to stakeholders and address sustainability risks will encounter growing scepticism from the markets, and in turn, a higher cost of capital."*

In Fink's concluding comments, he lays out some personal perspectives on the matter, *"Over the 40 years of my career in finance, I have witnessed a number of financial crisis' and challenges – the inflation spikes of the 1970's and early 1980's, the Asian currency crisis in 1997, the dot-com bubble, and the global financial crisis. Even when these episodes lasted for many years, they were all, in the broad scheme of things, short-term in nature. Climate change is different. Even if only a fraction of the projected impacts is realised, this is a much more structural, long-term crisis. Companies, investors, and governments must prepare for a significant reallocation of capital."*

Carbon Emission

Climate change and carbon emissions are topics that will continue to dominate discussion and divide opinions, with a consensus view unlikely to be reached anytime soon. For the layman in the audience, us included, it is difficult to ascertain fact from fiction, despite the quantity of expert opinions. Yet there are a few points worth considering.

According to Dr Pep Canadell, the Executive Director of the Global Carbon Budget and Principal Research Scientist at CSIRO's Climate Service Centre, global fossil fuel carbon dioxide emissions were projected to have hit a record high of 36.8b tonnes in 2019. While the global emissions growth rate actually slowed during the past year, this was more to do with an economic slowdown in many parts of the world.

As Canadell reported, *"While a slower global emissions growth rate indicates positive progress, there are some concerning findings. We are witnessing a shift in the dominance of emissions sources – coal emissions are trending down, but oil emissions continue to grow. And natural gas emissions are fast accelerating."*

Even with new technologies being adopted, Canadell reports a limit to its overall carbon reduction impact, *"There has been uptake of low-carbon technologies around the world including solar and wind power, and electric vehicles, but the demand for energy is outpacing development so these technologies are generally meeting new demand rather than replacing CO_2 emitting technologies, and that's particularly the case in developing countries."*

One point where there is general consensus among the experts, however, is striving for a goal of net zero carbon dioxide emissions by mid-century in order to limit the planet warming further.

So how is carbon emitted?

At its most basic level, the burning of fossil fuels (coal, oil and natural gas) to produce energy leads to combustion, releasing carbon dioxide into the atmosphere. While these emissions can also be released from natural sources, such as respiration derived from animals and plants, a great percentage comes from human activities, including the burning of fossil fuels which make up some 87% of these emissions.

In terms of contributors, coal is the biggest culprit responsible for 43% of carbon dioxide emissions from fuel consumption, followed by oil at 36% and natural gas at 20%. The three main economic sectors that use fossil fuels are electricity generation, transportation and industry, with electricity generation producing the bulk of carbon dioxide emissions at some 41%.

The release of carbon dioxide into the atmosphere is contributing to what is termed the greenhouse effect. While this is a natural process that warms the Earth's surface by absorbing solar energy, the increasing level of carbon dioxide released into the atmosphere is directly leading to a greater warming of the Earth.

Politics

We would suggest if governments could replace current fossil fuel consumption with alternative energy technologies that have limited economic impact, the decision to transition to a zero-carbon world would garner strong public support. Unfortunately, the reality of the situation is that irrespective of which side of politics people sit, economic stability does indeed matter.

Striking the right balance is a tricky affair and is well-illustrated in our own country. Both major parties, perhaps somewhat surprisingly, seem to agree that cutting coal exports would be the wrong move. Why? Labor leader Anthony Albanese offered the following reasoning, *"If you stopped exporting coal from Australia immediately then that would not reduce global emissions. There is enough displacement from other coal-exporting countries to take up that position, and that coal will produce higher emissions rather than less."*

The Home Affairs Minister Peter Dutton is in lockstep with this view, *"Stopping exports of coal to India or China will mean that they will source it from other countries. It means emissions will go up, so there's no benefit to the environment, and we would lose $70b from our economy."*

What appears to be at stake here are higher electricity charges and the potential loss of jobs, or more specifically coal jobs, a fact not lost on either party post the results of the last Federal Election. While making commitments to emission targets and dates are a moving feast, there seems to be some acknowledgement of required action. Neither party has given a commitment to a 2050 net zero emissions target, a long-term goal of the Paris climate agreement, although the government remains focused on achieving its 2030 target resulting from the same Paris accord.

Our states and territories do not appear to have the same issue committing, with all bar Western Australia pledging to reach net zero emission by 2050, while Victoria has gone the extra step and enshrined it in law.

Carbon emitters

Determining who are our biggest carbon emitters is not an easy task and is very susceptible to manipulation of the facts. From our perspective we are endeavouring to listen and learn. On this point the following comments are relying on data from Wikipedia, perhaps not the most scientific of bodies out there but sufficiently independent enough to begin the process of discovery.

The top group of country emitters of carbon dioxide out to 2017 are reflected in Table 12.

Table 12: Fossil CO_2 emissions (Mt CO_2/yr) by country/region

Country	1990	2005	2017
China	2,397	6,263	10,877
United States	5,086	5,972	5,107
European Union	4,409	4,250	3,548
India	606	1,211	2,455
Russia	2,379	1,734	1,765
Japan	1,149	1,277	1,321
Germany	1,018	837	797
South Korea	270	515	673
Iran	207	468	671
Saudi Arabia	166	339	639
Canada	456	581	617
Indonesia	162	360	511
Mexico	290	448	507
Brazil	229	381	493
South Africa	312	433	468
Turkey	150	246	430
Australia	275	392	402
United Kingdom	589	562	379
Total Global	**22,674**	**30,050**	**37,077**

Source: List of countries by carbon dioxide emissions.). Retrieved from
https://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions#Per_capita_CO2_emissions

The countries listed shouldn't really be a surprise, as the size of a population should presumably have a reasonable bearing on carbon emitted, particularly when you consider the major uses of fossil fuels are linked to electricity and heating requirements. With total global emissions of 37,077 Mt/CO_2[3], China leads with 10,877 Mt/CO_2 emissions, followed by the U.S. at 5,107 Mt/CO_2 and India at number four. Australia comes in at number 17 with emissions of 402 Mt/CO_2. Table 13 considers these numbers on a per capita basis.

[3] *Mt/CO2 = million metric tonnes carbon dioxide*

Table 13: 2017 Fossil CO_2 emissions on a per country capita basis

Country	Per Land Area (t CO_2/km²/yr)	Per Capita (t CO_2/cap/yr)
Palau	3,074	65
Curaçao	16,935	47
Qatar	8,440	37
Trinidad and Tobago	7,358	28
Bahrain	46,643	24
Kuwait	5,452	24
Faroe Islands	1	23
United Arab Emirates	2,426	22
New Caledonia	318	21
Saudi Arabia	297	19
Gibraltar	104,500	18
Canada	62	17
Oman	253	17
Australia	52	17
Luxembourg	3,689	16
Brunei	1,164	16
United States	519	16
Kazakhstan	98	15
Estonia	396	14
South Korea	6,719	13
Falkland Islands	3	13
Turkmenistan	148	13
Russia	103	12

Source: List of countries by carbon dioxide emissions. Retrieved from https://en.wikipedia.org/wiki/List_of_countries_by_carbon_dioxide_emissions#Per_capita_CO2_emissions

What Table 13 highlights is how dramatically the emitters vary when viewed on a per capita basis. China has been replaced by smaller nations including Australia, which comes in at number 14 emitting per capita 16.5t CO_2[4] p.a. In fact, China sits just behind New Zealand, emitting per capita 7.7t CO_2 p.a., while the U.S. comes in at per capita of 15.7t CO_2 p.a.

This is again consistent with logic. As an economy and its population migrates from a developing to developed status, so too will it seek a higher standard of living and undertake greater levels of consumption and infrastructure investment. To date, this has meant higher levels of fossil fuel consumption to meet these demands.

This uneven playing field between developing and developed nations highlights one of the difficulties in obtaining a coordinated global carbon outcome. Those that have achieved high living standards want to retain their status, while those striving to lift theirs are seeking equivalence.

[4] *t CO_2 = tonnes of carbon dioxide*

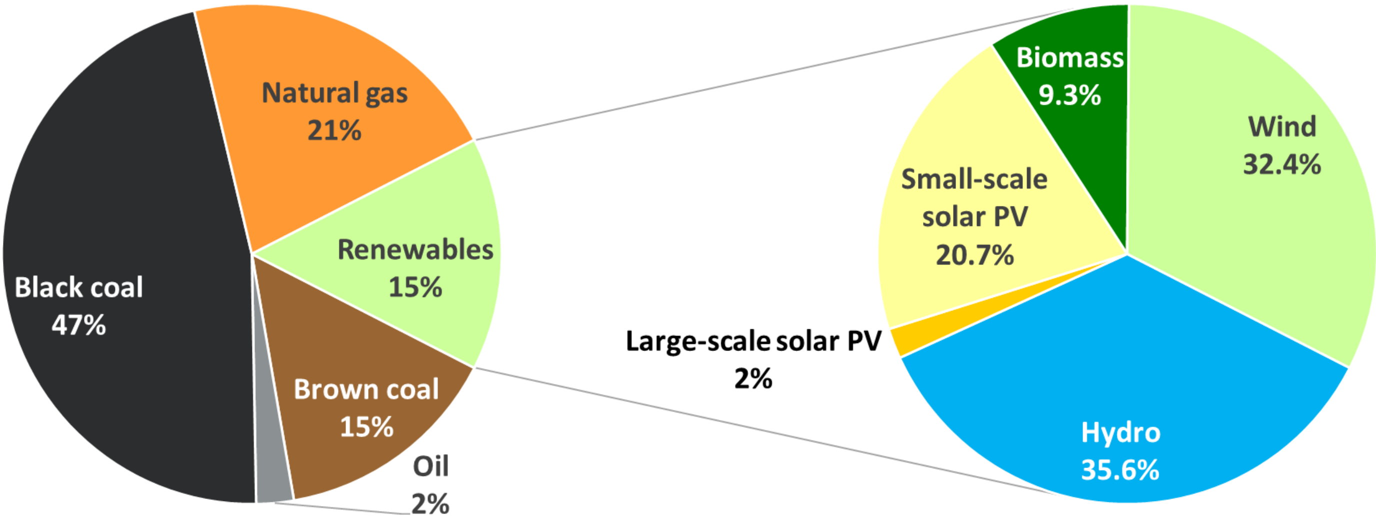
Table 14: Electricity production from renewable sources

Country	Year	Renewable Energy % of total
Albania	2016	100.0
Democratic Republic of the Congo	2016	100.0
Iceland	2016	100.0
Paraguay	2016	100.0
Namibia	2016	99.3
Costa Rica	2016	97.7
Tajikistan	2016	97.5
Norway	2016	97.2
Uruguay	2016	96.5
Zambia	2016	95.0
Ethiopia	2016	93.6
Kenya	2016	90.7
Kyrgyzstan	2016	86.7
New Zealand	2016	83.9
Mozambique	2016	83.7
Georgia	2016	80.7
Brazil	2016	80.4
Korea DPR	2016	75.7
Austria	2016	74.3
Togo	2016	73.1
Angola	2016	70.3
Gabon	2016	68.4
Venezuela	2016	67.6
Panama	2016	66.6
Republic of the Congo	2016	66.4
Nepal	2016	65.5
Croatia	2016	65.2
Canada	2016	65.0
Colombia	2016	62.9
El Salvador	2016	60.7
Denmark	2016	60.5
Ecuador	2016	60.2
Switzerland	2016	59.8
Montenegro	2016	58.8
Suriname	2016	58.3
Sweden	2016	57.1
Sudan	2016	56.7
Latvia	2016	54.2
Portugal	2016	53.5

Country	Year	Renewable Energy % of total
Nicaragua	2016	53.3
Laos	2016	53.1
Myanmar	2016	52.8
Cameroon	2016	52.4
Zimbabwe	2016	51.9
Guatemala	2016	51.7
Honduras	2016	50.1
Peru	2016	50.1
Lithuania	2016	49.4
Cambodia	2016	47.2
Germany	2019	46.2

Source: List of countries by electricity production from renewable sources. Retrieved from https://en.wikipedia.org/wiki/List_of_countries_by_electricity_production_from_renewable_sources

Figure 7: Australia's Electricity Generation 2017



Source: Renewable energy in Australia. Retrieved from https://en.wikipedia.org/wiki/Renewable_energy_in_Australia

The relevance of Table 14 is to illustrate the proactive steps countries are taking in generating electricity requirements from renewable energy sources, such as hydropower, wind, solar, biomass and geothermal. Again, by way of comparison, developed countries including New Zealand, Canada and Germany now sit high on the table with levels of 84%, 65% and 46% respectively. Not shown in the table is China at 24%, while both the United States and Australia are lagging at 15%.

Paris Agreement

On November 4, 2016 the Paris Agreement, an international treaty within the United Nations Framework Convention on Climate Change (UNFCCC), came into effect. The UNFCCC was adopted in 1992 as the basis for a global response towards tackling the challenge posed by climate change. The convention is made up of 197 member countries, ratified by 185, with Iran and Turkey the only significant emitters not parties to the agreement. The Convention's ultimate objective is to stabilise greenhouse gas concentrations in the atmosphere.

From here it gets a little tricky but suffice to note that the Paris Agreement's long-term temperature goal is to limit the increase in global average temperatures to well below 2°C[5] above pre-industrial levels and to pursue

[5] *Degrees Celsius*

efforts to limit the increase to 1.5°C. Signatories to the agreement have agreed to these aims. However, perhaps a rather critical flaw to the agreement is the lack of understanding or definition around what is meant by *"global average temperature"* and to which period in history should be considered *"pre-industrial"*.

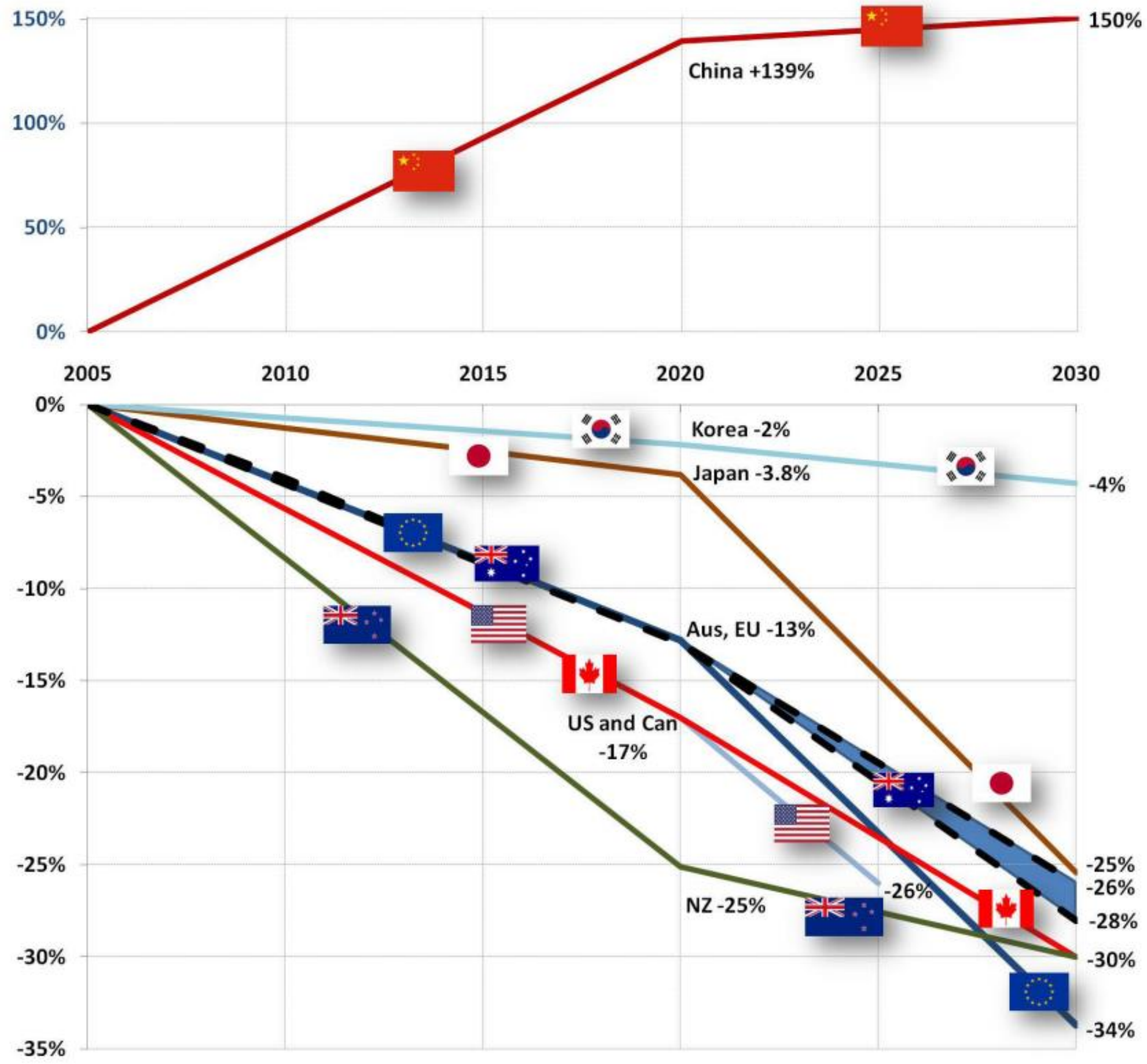
Scientific analysis indicates that in the decade from 2006-2015, relative to what could be considered the pre-industrial period of 1850-1900, warming rose 0.87°C. Projecting out and given that global temperatures are currently rising by 0.2°C per decade, warming would reach 1.5°C by 2040 if this trend continued.

Australia

In signing the Paris Agreement, Australia agreed to reduce its carbon emissions by 26-28% from 2005 levels by 2030. According to the Australian Government's Department of the Environment and Energy (DOEE), it remains confident in meeting this commitment. The government expects to meet its 2020 and 2030 targets by Direct Action policies, which are a combination of indirect and direct emission measures, including at its core the $2.55b Emissions Reduction Fund.

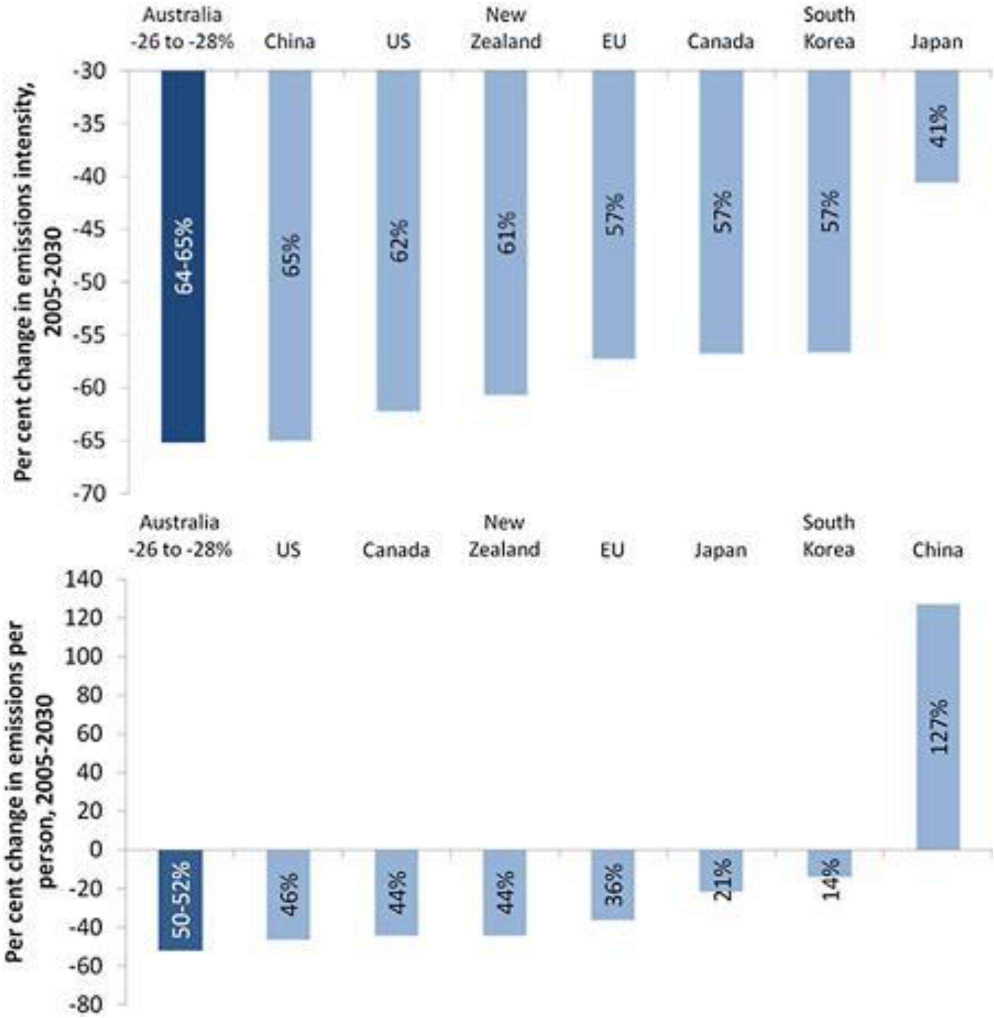
Figure 8 and Figure 9 have been provided by DOEE and seek to illustrate how Australia is positioned against other leading economies in meeting their obligations, when expressed against a common base year of 2005. DOEE notes Australia is responsible for around 1.3% of global emissions.

Figure 8: Global emission reduction targets per country 2005-2030



Source: Department of the Environment and Energy analysis

Figure 9: Emission intensity change per capital 2005-2030



For the purposes of these charts the US' 2025 target has been extrapolated to 2030 by extending a straight line of its reduction from 2020 to 2025.
Source: Department of the Environment and Energy analysis

Figure 9 more specifically considers the per capita reduction in emission intensity by country. Here the DOEE argues that, *"Between 2005 and 2030 Australia's emissions per capita will fall by 50–52 per cent and emissions intensity of the economy by 64–65 per cent. This is a significant achievement given that emissions are linked with population and economic growth, and Australia's population and economy are growing faster than most other developed countries. Australia's population is expected to grow at 1.5 per cent per annum to 2030, significantly higher than the OECD average of 0.4 per cent."*

Such is the issue around interpretation of these targets and numbers that it is difficult to know with any degree of confidence what is expected or required. Governments are reluctant to commit to long-term objectives that come at the expense of the economy and jobs. Australia certainly falls into that camp as well as the U.S. Regardless there is growing pressure for global authorities and businesses to move to a position of carbon neutrality by 2050.

Business v Government

While governments are focused on meeting a multitude of political and economic endpoints, businesses don't have the same luxury and are increasingly being pressured to respond to the growing body of climate evidence. Fink's 2020 letter to company CEOs is illustrative of the sea change now underway.

Businesses rely on shareholder support for ongoing capital, something that is now under active review. As Fink highlights, CEOs are on notice that retaining such support is no longer a given. Words must be backed up with action and if not, capital markets will respond firmly by reallocating capital.

At the individual company level, positive changes are afoot. Boards and executives are now required to identify the long-term risks to a business and the steps taken to mitigate those concerns. No longer can businesses turn a blind eye to important issues that shareholders and society more broadly have identified.

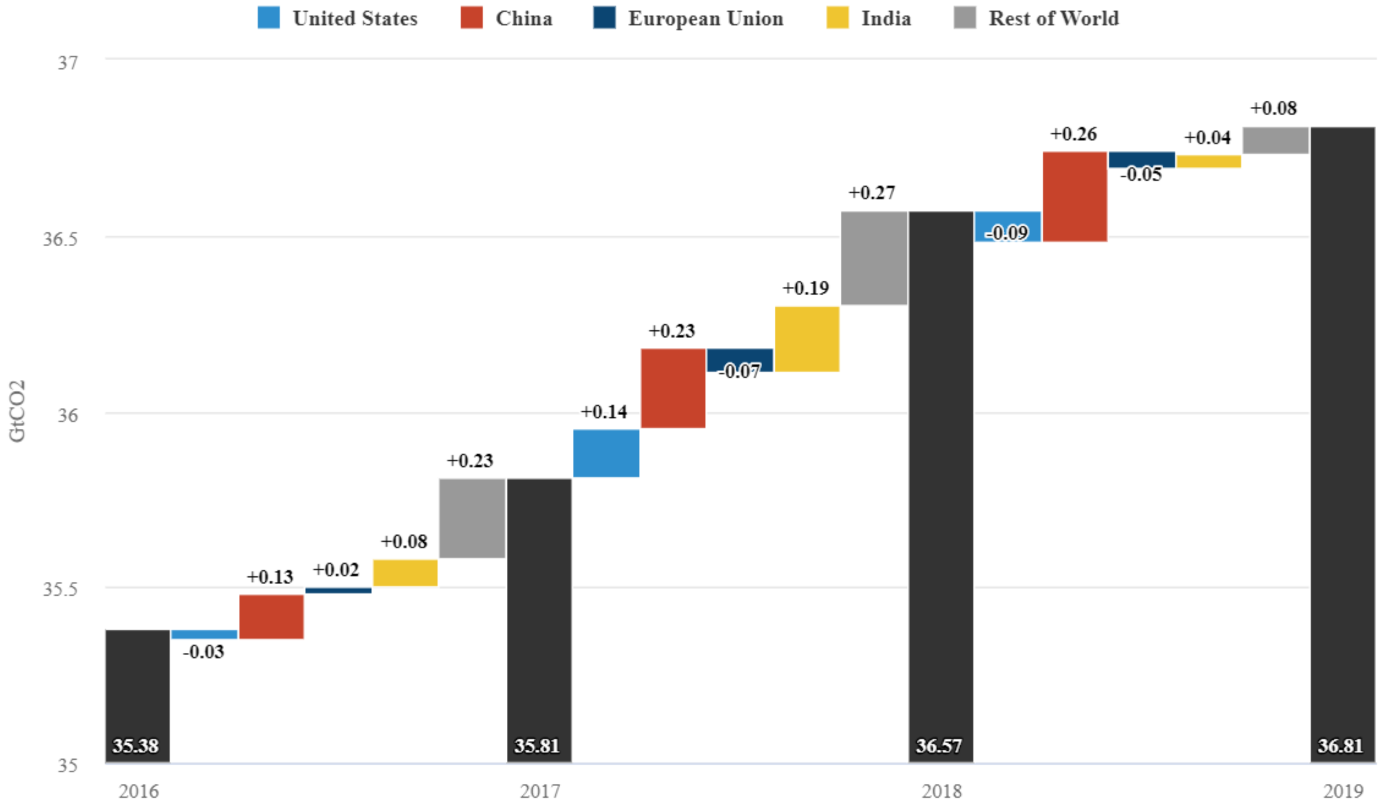
Annual reporting now requires far more information than just financial performance data. Environmental, Social and Governance (ESG) reporting has come to the fore, allowing investors to better measure and screen for businesses that are actively responding to a broad range of behaviours.

The rise of ESG has been remarkable and underscores Fink's view that *"capital markets pull future risk forward"*, illustrating why ignoring such concerns is a long-term risk to businesses. The term itself was first coined in 2005 in a landmark study entitled *"Who Cares Wins"* authored by Ivo Knoepfel. Here, the case was made that embedding ESG factors in capital markets makes good business sense and leads to more sustainable outcomes for societies.

Over the past decade, adoption of ESG reporting has accelerated. In 2018, Forbes Magazine reported that ESG investing was estimated at over US$20t in assets under management, or around a quarter of all professionally managed assets around the world.

Within ESG, climate change is now front and centre. Where governments are slow to act, businesses in a welcome development appear up to the task to lead by example. Illustrative of this is software giant Microsoft, which on 16 January announced that, *"Today, we are making a commitment that by 2030, Microsoft will be carbon negative. By 2050, Microsoft plans to remove the carbon it has emitted since it was founded in 1975."* This would see the company reduce its emissions from 16mt to net zero across its entire business, while also committing to a US$1b climate innovation fund towards developing new sustainable technologies for carbon reduction and removal.

Figure 10: Change in global emissions from fossil fuels by country, 2016-2019



Source: Analysis: Global fossil-fuel emissions up 0.6% in 2019 due to China | Carbon Brief. (2020). Retrieved 2 June 2020, from https://www.carbonbrief.org/analysis-global-fossil-fuel-emissions-up-zero-point-six-per-cent-in-2019-due-to-china

In the steel and aluminium industry, Liberty House founder Sanjeev Gupta is making a similar commitment, aiming to achieve carbon neutrality across its operations by 2030. This is not without its challenges, *"Aluminium and steel together are perhaps the largest industrial emitters of CO_2 on the planet. It's the biggest challenge for the industry, I believe, today because these industries are not easy to convert away from carbon. Especially steel is very difficult."*

The way forward is new technologies and in the field of steel making, the use of hydrogen rather than carbon is now under active consideration. To make hydrogen viable, an improvement in the economics is required. To that end, Gupta is supportive of a world that accounts for carbon by placing a price on it. To do so would accelerate change.

In an Australian Financial Review (AFR) opinion piece published on 15 January 2020, a former director of the OECD, Adrian Blundell-Wignall put forward the view that three actions could be considered in tackling climate change. These include pricing carbon, action on the part of investors to reallocate funds, and promoting green finance tools. According to Blundell-Wignall, *"The only approach that counts, and brings the other two into play, is putting a price on carbon that gives all actors a stronger market-based incentive to adjust."*

The reasoning is both compelling and evidenced based, *"Companies will always adjust to profit incentives. Creative destruction follows in a sensible way. Coal fired power disappears, gas and renewables are favoured, and fossil fuel employees move to other sectors. California is a great example: clean energy jobs outweighs those in fossil fuel activity."*

One suggestion currently under consideration is the introduction of a carbon border tax (CBT) adjustment applied on imported goods. In this way if one country were to abide by introducing carbon pricing whilst others do not, the CBT would be applied on products at the border to account for the carbon subsidy mismatch. In essence, countries that do not take carbon action are not economically rewarded.

Central banks have also entered the fray, issuing a warning that the next financial crisis could be climate induced. This is in a similar vein to Fink's comment that capital deemed to be at risk would be ultimately reallocated. Under such a scenario, a disruptive shift in asset prices to a low carbon economy might lead to some investments being stranded, potentially leading to a *"green swan"* event.

Final word

Whether Fink's letter to CEOs is a catalyst or not, the climate change train has definitely left the station. Accountability is forcing change at the corporate level, while increasing public awareness is pressuring governments and businesses alike to act. As investors we too are having to listen, learn and adapt to the climate change implications now under way.

Benjamin Franklin's advice is worthy of heeding, *"By failing to prepare, you are preparing to fail."* ***SFM***

SELECTOR'S CARBON EMISSIONS

We believe business' need to be proactive in reducing carbon emissions. The good news is that companies are beginning to respond, as Environmental Social and Governance (ESG) factors, climate change included, become a mainstream business consideration.

In the last year, some notable global leaders have stepped up. Amazon announced its goal of becoming carbon neutral by 2040, Salesforce introduced a carbon accounting platform within their sustainable product offering and BP pledged to become carbon neutral by 2050. However, tech giant Microsoft takes the cake on arguably the most ambitious goal, pledging to actively reduce carbon emissions in the atmosphere. By 2030 the company vows to become carbon negative and by 2050 aims to offset all direct emissions produced since the company's founding in 1975.

Closer to home, the major banks have led the charge. Both NAB and ANZ are well-versed in this space, having been carbon neutral since 2010. All 4 majors have also committed to the Renewable 100% (RE100) initiative, pledging to fully source electricity from renewable energy.

Small business also needs to play a role and talk can be cheap. At Selector, despite the relatively small environmental footprint created by a team of 7, we have endeavoured to recognise our firm's carbon output, the significance of it and the options for offsetting our annual emissions. The initiative has been a valuable learning experience and is being used as a building block for understanding the emissions of companies within our investment universe.

In calendar year 2019, Australia had an average emission output of 21 tonnes of CO_2 per person. This data was sourced from the National Greenhouse Gas Accounts. While this is not a correct direct comparative to our emissions per team member, which sits at 14 tonnes, it is a good reference point.

Calculating Greenhouse Gas (GHG) emissions

As the calculation of GHG emissions requires a degree of guesswork, we decided to take a conservative view with our estimates. To ensure best practise, whilst adhering to the Greenhouse Gas Protocol standards, we engaged Australian carbon solutions provider, Carbon Neutral. Note, an independent auditor has not reviewed these calculations.

Our GHG emissions output was driven by five key contributors; electricity, paper for printing, travel (domestic and international), waste and transportation to and from work.

Breakdown of our emissions

The main contributors to our GHG emissions were travel and electricity (94.6%). International travel made up 76.1% of total emissions and is reflective of our investment strategy to actively meet management and improve our understanding of the businesses we own.

It is worth noting that we have also factored in indirect emissions for travel in our estimates. Indirect emissions include the greenhouse gases produced when loading and unloading baggage, the emissions associated with the extraction, refinement and transportation of aviation fuel and the nitrous oxides and water vapours emitted at high altitude. We used Carbon Neutral's calculating tool to source the relevant factors associated with indirect emission.

Carbon Neutral uses the UK DBEIS methodology to calculate the indirect emissions from business air travel. This methodology applies a Radiative Forcing calculation, which is simply an emissions multiplier added onto the distance travelled, to reflect the broader environment impacts of air travel. Effectively, by including these indirect emissions, our air travel emissions more than doubled.

Below is a summary of our GHG estimates for calendar year 2019.

Table 15: Selector's CO_2 Emissions for 2019

Category	CO_2 Emissions (t)
Air Travel	79.1
Electricity	15.5
Transportation	3.0
Waste	1.4
Paper	0.5
Total	**99.5**

Source: SFML

Offsetting emissions

For calendar year 2019, we estimated the firm's CO_2 output to be 100 tonnes (rounded up to the nearest tonne).

Initially, Selector had the goal of being directly involved in the carbon offsetting process. However, given the scale of the project, which would have required Selector to plant around 1,500 trees, we have instead chosen to purchase carbon credits. A carbon credit acts as a permit to offset one tonne of carbon. Companies such as Carbon Neutral issue credits to fund their projects that seek to reduce, capture, or prevent emissions emitted into the atmosphere.

We partnered with Carbon Neutral to support their Yarra Yarra Biodiversity Corridor initiative. This Australian Native Reforestation project aims to restore habitat loss and deforestation in the Northern Wheatbelt of Western Australia. Carbon Neutral is certified by The Gold Standard, which ensures projects achieve genuine outcomes that deliver with as much impact as possible.

Overall, the cost to offset our emissions for 2019 was $2,420 (inclusive of GST). Selector has received a certificate from The Gold Standard as proof of purchase of carbon credits. ***SFM***

COMPANY VISIT DIARY – JUNE 2020 QUARTER

Date	Company	Description
1-Apr	ARB	ARB Corporation SFML COVID-19 update with Investor Relations
1-Apr	IEL	IDP Education Capital Raising Conference Call
3-Apr	NAN	Nanosonics SFML COVID-19 update with Management
3-Apr	REA	REA Group UBS Conference Call with Management
6-Apr	FLT	Flight Centre Travel Group Capital Raising Conference Call
6-Apr	REH	Reece Capital Raising Conference Call
7-Apr	ALL	Aristocrat Leisure UBS Conference Call with Management
7-Apr	CPU	Computershare FY20 Earnings Guidance Revised Investor Call
8-Apr	NAN	Nanosonics GS Small/Mid-Cap Healthcare Day Call
8-Apr	PNV	PolyNovo GS Small/Mid-Cap Healthcare Day Call
9-Apr	CSL	CSL COVID-19 Investor Briefing
9-Apr	CWN	Crown Resorts UBS Conference Call with Management
9-Apr	NAN	Nanosonics SFML Management Conference Call
21-Apr	NEA	Nearmap COVID-19 Business update investor call
21-Apr	MP1	Megaport UBS Conference Call with Management
22-Apr	IFM	Infomedia SFML Management Conference Call
23-Apr	IFM	Infomedia IFM Capital Raising Conference Call
24-Apr	ALL	Aristocrat Leisure SFML Management Conference Call
27-Apr	AD8	Audinate Management Investor Briefing Conference Call
28-Apr	MP1	Megaport GS Emerging Leaders Conference webcast
28-Apr	NAN	Nanosonics GS Emerging Leaders Conference webcast
28-Apr	NXT	NEXT DC GS Emerging Leaders Conference webcast
28-Apr	MP1	Megaport SFML Management Conference Call
29-Apr	NEA	Nearmap GS Emerging Leaders Conference webcast
29-Apr	PBH	Pointsbet Holdings GS Emerging Leaders Conference webcast
30-Apr	DPZ.NYSE	Domino's Pizza Inc. UBS Management Conference Call
30-Apr	IFL	IOOF Holdings SFML Management Conference Call
1-May	RMD	ResMed Q3 Results Conference Call
1-May	RWC	Reliance Worldwide Trading Update Conference Call
5-May	TCL	Transurban Macquarie Australia Conference webcast
5-May	AGL	AGL Energy Macquarie Australia Conference webcast
5-May	PNV	PolyNovo Macquarie Australia Conference webcast
5-May	DHG	Domain Holdings Australia Macquarie Australia Conference webcast
5-May	NEC	Nine Entertainment Macquarie Australia Conference webcast
5-May	FMG	Fortescue Metals Macquarie Australia Conference webcast
5-May	OSH	Oil Search Macquarie Australia Conference webcast
5-May	NXT	NEXT DC Macquarie Australia Conference webcast
6-May	MPL	Medibank Private Macquarie Australia Conference webcast
6-May	NEA	Nearmap Macquarie Australia Conference webcast
6-May	BKL	Blackmores Macquarie Australia Conference webcast
6-May	APX	Appen Macquarie Australia Conference webcast

Date	Company	Description
6-May	HUB	HUB24 Macquarie Australia Conference webcast
6-May	PNI	Pinnacle Investment Macquarie Australia Conference webcast
6-May	NWL	Netwealth Group Macquarie Australia Conference webcast
6-May	FCL	FINEOS Macquarie Australia Conference webcast
7-May	LNK	Link Admin Holding Macquarie Australia Conference webcast
7-May	NHF	NIB Holdings Macquarie Australia Conference webcast
7-May	PPT	Perpetual Macquarie Australia Conference webcast
7-May	CTD	Corporate Travel Management Macquarie Australia Conference webcast
7-May	JIN	Jumbo Interactive Macquarie Australia Conference webcast
7-May	IRE	IRESS Annual General Meeting
8-May	REA	REA Group Q3 Results Conference Call
8-May	CAR	Carsales.com UBS Management Conference Call
8-May	JOBS.NASDAQ	51job 1Q20 Results Conference Call
11-May	COH	Cochlear Trading Update Conference Call
13-May	FLT	Flight Centre Travel Group SFML Management Conference Call
14-May	UMG	United Malt Group Investor update conference call
19-May	JHX	James Hardie Industries FY20 Investor Results Call
19-May	OFX	OFX Group FY20 Investor Results Call
19-May	APX	Appen Investor Technology Day
19-May	TNE	TechnologyOne 1H20 Results Conference Call
19-May	OFX	OFX Group JPM Management Conference Call
19-May	OFX	OFX Group SFML Management Conference Call
20-May	CPU	Computershare Investor update Conference Call
20-May	TNE	TechnologyOne SFML Management Conference Call
21-May	JHX	James Hardie Industries SFML Management Conference Call
21-May	ALL	Aristocrat Leisure HY20 Results Conference Call
21-May	BRG	Breville SFML Management Conference Call
22-May	ALL	Aristocrat Leisure Macquarie Management Conference Call
22-May	BRG	Breville UBS Emerging Companies Conference
27-May	REA	REA Group Goldman Sachs Digital Real Estate Conference
27-May	BKL	Blackmores Capital Raising Conference Call
27-May	ALL	Aristocrat Leisure SFML Management Conference Call
27-May	ALL	Aristocrat Leisure UBS US Slots Industry Conference Call
27-May	BKL	Blackmores SMFL Management Conference Call
28-May	OFX	OFX Group SMFL Management Conference Call
28-May	COH	Cochlear UBS Cochlear Implant Dynamics Conference Call
28-May	BKL	Blackmores Meet the Management Investor Call
1-Jun	IRE	IRESS Capital Raising Conference Call
1-Jun	REA	REA Group SFML Management Conference Call
2-Jun	MP1	Megaport UBS Platform Demonstation Call
2-Jun	IRE	IRESS SFML Management Conference Call
3-Jun	COH	Cochlear SFML Management Call with Investor Relations
4-Jun	ASX	ASX Investor Day
4-Jun	NEA	Nearmap SFML Management Conference Call

Date	Company	Description
4-Jun	NHF	NIB Holdings GS Private Healthcare Conference Call
9-Jun	CPU	Computershare JPM Management Call with investors
9-Jun	DMP	Domino's Pizza Enterprises CEO Webcast
10-Jun	SOM	SomnoMed Taylor Collison Management Conference Call
10-Jun	DMP	Domino's Pizza Enterprises SFML Conference Call with IR and Board
15-Jun	IRE	IRESS UBS Management Conference Call
18-Jun	RMD	ResMed Goldman Sachs Management Conference Call
19-Jun	CAR	Carsales.com Goldman Sachs Management Conference Call
22-Jun	NCK	Nick Scali Macquarie Management Conference Call
23-Jun	FCL	FINEOS UBS Management Conference Call
24-Jun	CWN	Crown Resorts UBS Management Conference Call
25-Jun	CAR	Carsales.com UBS Management Conference Call
25-Jun	IFL	IOOF Holdings JP Morgan Management Conference Call
29-Jun	FPH	Fisher & Paykel Healthcare FY20 Investor Results Conference Call
29-Jun	JIN	Jumbo Interactive Investor update Conference Call
29-Jun	SKO	Serko UBS Product Demo
29-Jun	JIN	Jumbo Interactive SFML Management Call
30-Jun	REA	REA Group UBS Management Conference Call

Selector Funds Management Limited Disclaimer