2019 INREVIEW

BUSINESS QUALITY MATTERS
by Vihari Ross

MEET THE STARBUCKS CEO
Rosie Malcolm talks with Kevin Johnson

THIS TIME IS DIFFERENT
by Michael Morell

REFLECTIONS FROM AN INVESTOR

by Hamish Douglass

EXPERTS IN GLOBAL INVESTING

INREVIEW
2019

ON BEHALF OF
EVERYONE AT MAGELLAN

Welcome to our first 'In Review' magazine

In previous years we produced the annual investor reports for each of our funds separately. This year, we have combined them into this one publication. You will notice that we have taken the opportunity to include some additional insights from our team.

At Magellan, we love compounding. We love compounding returns for those who have entrusted their savings to us, and we love learning and compounding our knowledge. Our investment research is rigorous and deep, and we aim to keep learning, both from what we have got right and what we have got wrong.

The articles in this magazine are a snapshot of some of those learnings. We cover a variety of topics. They range from an interview with Kevin Johnson, the CEO of Starbucks, several stock pick discussions and thoughts from Michael Morell, a former deputy director of the Central Intelligence Agency, on global politics, to Hamish's reflections on what he has learnt from investing over the past decade or so.

We hope you enjoy it.

Everyone at Magellan understands the deep trust you have placed in us by allowing us to manage your money, and we look forward to continuing to deliver on that trust in the years to come.

Brett Cairns, CEO

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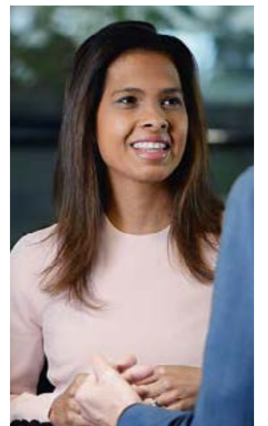

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REFLECTIONS from an investor

Insights gathered from years of investing include thoughts on how to find the right investments, how to let investments work for you, risk management and the best temperament to have when investing.

by Hamish Douglass, Chairman and Chief Investment Officer

> **"Your goal as an investor should be simply to purchase, at a rational price, a part interest in an easily understandable business whose earnings are virtually certain to be materially higher five, 10 and 20 years from now. Over time, you will find only a few companies that meet these standards."**
>
> Warren Buffett

While Buffett might make investing sound easy, few people achieve outstanding investment records over the long term as he has. The following sets out some of my reflections gained over the years.

These 13 reflections are organised into four topics:

Finding the right investments, letting your investments work for you, risk, and the temperament to learn from mistakes. You can be assured that this list is not definitive. Each day has moments of learning.

Finding the right investments

1 STANDING ON THE SHOULDERS OF GIANTS

"If I have seen further than others, it is by standing on the shoulders of giants."
Sir Isaac Newton

At Magellan, we believe in benefiting from the knowledge imparted by the best. Our investment philosophy has been influenced by some of the legends of the investment world: Benjamin Graham (*The Intelligent Investor*, in which he highlighted the importance of thinking of stocks as businesses, the concept that the stock market is a voting machine in the short term and a weighing machine in the longer term, and incorporating a margin of safety); Phil Fisher (*Common Stocks and Uncommon Profits and Other Writings*, where he highlighted the importance of investing in quality companies with superior returns on capital) and Buffett and Charlie Munger who brought these concepts together.

From such insights, we have developed an investment philosophy that at its core is about investing in a concentrated portfolio of the world's best businesses purchased at attractive prices. The returns such a portfolio earns over time reflect the underlying returns on capital, growth prospects, competitive advantages and management capabilities of these outstanding businesses.

Our portfolio-construction process can be likened to a process for picking a sports team that can win a grand final. We find no appeal in picking a team of 'B-grade' players when we can scour the world for a team of 'A-grade' players. Unlike the coaches of many sporting teams, we have no salary cap to handicap us as we assemble fractional interests in the best team of outstanding companies at the most attractive prices.

If our investment returns have been better than others it is in large part due to the fact that we are standing on the shoulders of giants. Investing in a portfolio of outstanding businesses at appropriate prices produces superior outcomes and is more reliable over the longer term than any other investment approach we know. Critically, having a portfolio of outstanding companies is a huge advantage in times of adversity because it lowers the risk of large capital loss. As Buffett says: "To finish first you must first finish."

2 THE POWER OF NETWORK EFFECTS

The network effect describes the process whereby an additional user of a product or service makes that item more valuable to all users. Facebook's social network is a classic example of a two-sided network effect. On one side, each new user makes the network more valuable to other users as there are more friends for people to link up with. At the same time, more users on Facebook make the advertising network deeper and more valuable to advertisers.

Powerful network effects usually result in dominant companies that have exceptional returns on capital. Many of the investments we have made over the years have been in businesses that exhibited strong network effects. These investments include the Visa, Mastercard, PayPal and American Express payment networks, Facebook's social networks (Facebook and Instagram) and messenger platforms (Messenger and WhatsApp), the Google search business and YouTube business, Apple's and Android's app stores, Microsoft's Windows operating system and Office productivity suite, and eBay's marketplace. Other businesses in which we haven't made meaningful investments (to date) that exhibit strong network economics include credit-rating agencies, derivative exchanges and clearing houses, Amazon's marketplace, online travel agencies and the major Chinese technology platforms. We believe that autonomous driving software is likely to exhibit strong network effects as will the platforms for the sharing economy such as Airbnb and Uber.

An important lesson from investing in businesses that exhibit strong network economics is to be aware that they will usually attract the attention of regulators. We also note that there are many examples of businesses with powerful network effects where a competitor emerges with a business model that causes users of the product or service to leave existing networks. Classic examples where new competition has weakened a network include fixed-wire telephone networks (due to the emergence of mobile networks) and newspapers and television networks (due to competition from internet-enabled business models).

3 BEWARE OF MISTAKING COMPANIES WITH HIGH RETURNS ON CAPITAL OR MARKET LEADERSHIP FOR OUTSTANDING BUSINESSES

There are many businesses that earn high returns on capital or are market leaders that are not outstanding businesses. To be exceptional, a business must have two characteristics: it must earn superior returns on capital and have deep and durable competitive advantages (or an 'economic moat') that protect excess returns on capital over time. The following are examples of sustained competitive advantages.

- It is expensive for consumers to depart from the incumbent provider because of high switching costs, inconvenience or regulatory restrictions.
- The leading market participant has material economies of scale that give it significant cost advantages over competitors.
- The business has a strong and unique brand or is protected by long-term intellectual property rights such as copyright, patents, exclusive licences or trademarks.

> "To be exceptional, a business must have two characteristics: it must earn superior returns on capital and have deep and durable competitive advantages..."

We have learnt important lessons from investing in businesses that exhibited high returns on capital or were market leaders but lacked long-term competitive advantages. Examples of such investments include Nutrisystem (a US meal delivery business for people seeking to lose weight), and US apparel retailer Abercrombie & Fitch. We now appreciate that few retailers have sustainable competitive advantages. The vast majority are low-quality businesses.

4 DON'T RELY ON THE REAR-VIEW MIRROR

"If past history was all there was to the game the richest people would be librarians."

"In the business world, the rear-view mirror is always clearer than the windshield."

Warren Buffett

We naturally spend a lot of the time analysing the past to identify investment opportunities. While this is a normal approach to take, it is dangerous to assume that the past is a reliable predictor of the future. Capitalism's creative and destructive forces are forever reshaping industries by growing new businesses and destroying dominant firms. To realise this, you only have to look at a list of the top 50 companies in the world 20 years ago and see how many have struggled since. We should all heed the advice of the great ice hockey player Wayne Gretzky who said: "Skate to where the puck is going, not where it has been."

Within our investment universe, for example, we question whether or not the best retail banking franchises and the best consumer brands will remain as dominant over the next five to ten years. We believe it is likely that technology and new media and retail platforms will weaken the competitive advantages of many banks and consumer brands in coming years. Businesses in this space might well earn reasonable profits but they are unlikely to be as dazzling as they once were.

It is frightening that an industry has developed—the 'smart beta' industry—that is based on rear-view investing or optimising factors that worked in the past. Anything can work until it doesn't. Our job as investors is to assess where the puck is headed.

5 YOUR BEST IDEAS ARE OFTEN MORE OBVIOUS THAN YOU THINK

There is a finite number of outstanding companies in the world. The vast majority of these companies are well-known 'blue chip' investments. Many people think that you can only earn superior returns by uncovering hidden gems. In our experience, the best long-term investments are often hiding in plain sight. They are usually market-leading firms that have superior returns on capital, excellent long-term growth prospects and wide economic moats.

> "Many people think that you can only earn superior returns by uncovering hidden gems."

We have a defined pool of the market-leading businesses that earn attractive returns on capital and that possess deep competitive advantages. We try not to stray outside this group. Charlie Munger reminded everyone at the 2008 annual meeting of Berkshire Hathaway of the limited number of great companies when he said:

"Most big businesses eventually fall into mediocrity or worse. So it is a tough game out there."

We find that in assessing a new investment opportunity it is often better to buy more of what you already understand than buy the 26th next best investment idea. We have frequently revisited old investment ideas and reinvested in them.

6 BE CAREFUL OF STOCKS TRADING AT LOW MULTIPLES OF EARNINGS OR THOSE THAT OFFER HIGH DIVIDEND YIELDS

It is interesting to assess why the market often fails to sufficiently differentiate between companies with vastly superior long-term prospects and those with more mediocre prospects. We suspect it is due to a combination of too much focus on short-term returns and the use of simplified investment metrics such as prevailing dividend yields or price-earnings multiples. These valuation measures, however, tell you little about the future growth in earnings, what incremental return on capital a business will earn over time, or the sustainability of a business's competitive advantages. Businesses with low price-earnings multiples or high dividend yields are often ones with unattractive prospects rather than opportunities that will deliver superior returns.

> **"...turnaround situations rarely deliver superior investment returns and they are best avoided."**

Occasionally, we find an opportunity to invest in an outstanding business at very favourable valuations and we have had the conviction to buy a meaningful amount; our decision to invest in Microsoft in 2013 is an example of this. We have also made mistakes in being attracted to businesses with low price-earnings multiples, such as our investment in 2015 in IBM, which had deteriorating business prospects.

7 AVOID TURNAROUNDS

"Both our operating and investment experience cause us to conclude that turnarounds seldom turn."
Warren Buffett

It is our experience that turnaround situations rarely deliver superior investment returns and they are best avoided. When a company gets into difficulty, typically two things happen: either the situation facing the company deteriorates further or it takes longer than expected for the turnaround to be executed. Time is the enemy in these situations—you will get little reward for being eventually correct.

We are very conscious that many investors have caught 'falling swords' by making contrarian investment decisions on the basis that it must be a good time to buy when others are panicking. In our experience many investments in turnaround situations deliver sub-par investment returns.

Let your investments work for you

8 THE MAGIC OF COMPOUND INTEREST

"Compound interest is the greatest mathematical discovery of all time."
Albert Einstein

"Money makes money. And the money that money makes, makes more money."
Benjamin Franklin

If we had to pick what were the most important factors driving our investment returns over the past 12 years, the answer would be our long-term investment time frame and our willingness to let the magic of compound interest do the heavy lifting. We have held long-term investments in many companies that have favourable characteristics for compounding capital at attractive rates.

> **"...our best investment returns have resulted from situations where we have...let compounding work its magic."**

These characteristics include favourable growth prospects, high returns on capital, and deep and sustainable competitive advantages. Post the initial investment, we have avoided the temptation of playing a short-term game of gin rummy by discarding investments frequently and seeking to find opportunities that might deliver higher short-term returns. An investment that can deliver a 15% return per annum for 10 years is usually far superior to an investment that can deliver a one-off 50% return over a short period. An investment that can deliver a 15% per annum return will multiply your money by four times in 10 years. In many cases, our best investment returns have resulted from situations where we have simply done nothing but let compounding work its magic. The nature of compound interest is that it takes time. There are few ways to compound your money quickly. This is why the turnover of stocks in our portfolio is limited. Our investment style of patience and compounding is not well suited to many investment professionals as it is hard to feel you are adding value when for 360 days in a year you decide to do nothing. On average, we have made around four key new investment decisions per year. Our team is constantly assessing opportunities but the nature of our approach is that we make decisions infrequently. In our experience, investors don't get rewarded for activity. They get rewarded for patience.

Risk

9 IMPORTANCE OF PORTFOLIO CONSTRUCTION

We believe that prudent portfolio construction is critical for reducing risk. Many people assume that prudent portfolio construction equates to holding a widely diversified portfolio. In our opinion, holding a well-diversified portfolio only ensures that an investor's portfolio will produce returns that are similar to the market's return. We do not believe in holding a widely diversified portfolio. Core to our portfolio-construction process are the following.

- We incorporate a margin of safety by not holding, at least knowingly, overvalued securities.
- We hold a meaningful amount of investments in companies that should perform strongly in an economic downturn.
- We minimise aggregation risk; i.e. the risk attached to similar economic, competitive or regulatory forces. We put defined aggregation risk limits on key risks to which our portfolios are exposed.
- We limit our maximum position size in any one stock.

> "It is inevitable that we will make mistakes. Even our best ideas can be wrong."

It is inevitable that we will make mistakes. Even our best ideas can be wrong. Examples of where we were wrong with one of our 'best' (not such a great term in hindsight) ideas include the investment in the UK retailer Tesco and more recently the investment in Kraft Heinz. While it was disappointing to make such mistakes, the good news is that we had not aggregated the risk with similar investments so the overall impact on the portfolio from these mistakes was modest. The lessons here are do not put all your eggs in one basket and avoid the temptation to buy more and more stocks that match your 'favourite idea'.

10 BEWARE OF BUSINESSES WHERE THE COMPETITIVE ADVANTAGE IS DEPENDENT UPON GOVERNMENT SUBSIDIES OR VULNERABLE TO GOVERNMENT POLICY

In 2007, we made an investment in SLM Corp, which at the time was the leading private sector provider of government-guaranteed and non-government-guaranteed student loans in the US. SLM's business model depended upon the US Department of Education because it paid the private sector subsidies to originate and service government-guaranteed student loans. We were fortunate (lucky would be a better description) that we sold the investment in October 2008, immediately after the collapse of Lehman Brothers, due to our assessment that the company might lose access to capital markets to fund private loans. Not long after we sold our holding in SLM, the Obama Administration announced that it would no longer pay subsidies to the private sector to originate government-guaranteed student loans. This decision killed a core part of SLM's business model. It taught us to avoid investments where the core competitive advantage is vulnerable to government decisions.

11 KNOW WHAT YOU DON'T KNOW

"Real knowledge is to know the extent of one's ignorance."
Confucius

It is easy in investing to have confidence in what you know, or think you know, about an investment. After completing due diligence on an investment opportunity, the most important things to assess are what you don't know about an investment and whether or not this missing knowledge creates material uncertainty. Investors should always ask themselves: What is it about this investment that I do not know? This state of mind does not come naturally as confirmation bias leads people to information that confirms existing conclusions. To overcome this natural tendency, we try to invert the investment case and ask ourselves why we are wrong. This better equips us to look for what we don't know about an investment.

> "It is critical that investors know the limitations of their knowledge or what is knowable."

We have developed a risk-assessment framework that sets out the things that could enhance or harm our assessment of a business. We try to assess the impact on the investment if any of these events were to occur. We then try to estimate the probability as to whether or not they might. It has been rare that we have made mistakes because we had not thought an event might occur. Usually we have not properly assessed the probability of an event taking place.

It is critical that investors know the limitations of their knowledge or what is knowable. Buffett describes this as knowing your "circle of competence". There are many things in investing that are unknowable and we believe investments are best avoided if there are too many unknowns. We believe that many large banks (particularly with sizeable investment banking arms) are simply too complex to understand and are outside our circle of competence.

"There are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know."
Donald Rumsfeld, former US Secretary of Defense

The temperament to learn from mistakes

12 DON'T BECOME EMOTIONAL

"An investor will succeed by coupling good business judgment with an ability to insulate his thoughts and behaviour from the super-contagious emotions that swirl about the marketplace."
Warren Buffett

The market often provides us with excellent investment opportunities to buy or sell at prices significantly different from our assessment of the intrinsic value of underlying businesses. In chapter eight of *The Intelligent Investor*, Graham introduced the concept of 'Mr Market'. Mr Market is an obliging business partner who every day is prepared to tell you what your interest in a business is worth and on that basis is prepared to buy your interest or sell you an additional interest. Sometimes, he quotes you reasonable prices based on the business prospects and developments as you know them. Often, Mr Market is unpredictable and temperamental and quotes you ridiculously high or low prices. Additionally, Graham wrote: "Price fluctuations have only one significant meaning for the true investor. They provide him with an opportunity to buy wisely when prices fall sharply and to sell wisely when they advance a great deal. At other times, he will do better if he forgets about the stock market and pays attention to his dividend returns and to the operating results of his companies."

It is important that investors do not become emotional about movements in share prices. The unpredictable nature of the share market and wide fluctuation in prices are there to serve an investor. Buffett has famously been quoted as saying that you should be greedy when others are fearful and fearful when others are greedy.

We think it is critical that investors do not become emotionally attached to a company or its management. A company does not care who you are or whether or not you are a shareholder. The nature of the share market is if you don't buy the shares on offer for trade then someone else will. It is difficult to be emotionally detached after you have spent considerable time getting to know management and feel that you have a trusted relationship. This emotional connection can affect your decision to sell your shareholding.

13 DON'T MAKE THE SAME MISTAKE TWICE

"Those who cannot remember the past are condemned to repeat it."
George Santayana, Professor of Philosophy

It is inevitable that as an investor you will make mistakes.

There are three key principles we follow when we make a mistake:

- Correct the mistake. In most instances, a decision to sell the investment is the most appropriate course of action when we have made a mistake. Wishing for our money back is usually another mistake.
- Don't repeat the same mistake.
- Learn from the mistake.

To try to ensure we do not repeat a mistake, we:

- Own the mistake. We do not attempt to avoid the blame. (You will never learn from a mistake unless you take ownership.)
- Acknowledge the mistake publicly. I do this within our investment team and publicly with our clients.
- Write down what went wrong and revisit our mistakes. (You will never learn from your mistakes if you pretend they didn't happen.)

People who acknowledge and learn from their mistakes will make fewer mistakes and will become better investors. ▲

More insights from Hamish:

- Cognitive Bias
- Being a successful investor

MAGELLAN
EXPERTS IN GLOBAL INVESTING

INVESTOR EVENTS 2020

SAVE THE DATE

MELBOURNE
Friday, 21 February 2020

CANBERRA
Monday, 24 February 2020

BRISBANE
Tuesday, 25 February 2020

ADELAIDE
Wednesday, 26 February 2020

PERTH
Thursday, 27 February 2020

AUCKLAND
Tuesday, 3 March 2020

SYDNEY
Thursday, 5 March 2020
Friday, 6 March 2020

All tickets will be on sale later this year with all proceeds going to charity.

Please join us at Magellan's 2020 **'Investor Evenings'** across Australia and in Auckland where I will discuss what is happening in the investment world. Tickets will be on sale later this year and all proceeds will go to charity. Please save the date. There will be drinks and canapés afterwards where you can meet myself and the rest of the Magellan team.

Hamish Douglass

THE GRAVITY
of interest rates

It matters that the uncertainty created by central-bank policies over the correct interest rate to use for long-term valuation purposes has made the investment business more challenging.

by Hamish Douglass, Chairman and Chief Investment Officer

"The value of every business, the value of a farm, the value of an apartment house, the value of any economic asset, is 100% sensitive to interest rates because all you are doing in investing is transferring some money to somebody now in exchange for what you expect the stream of money to be, to come in over a period of time, and the higher interest rates are the less that present value is going to be. So every business by its nature ... its intrinsic valuation is 100% sensitive to interest rates."

Warren Buffett—1994 Berkshire Hathaway annual general meeting

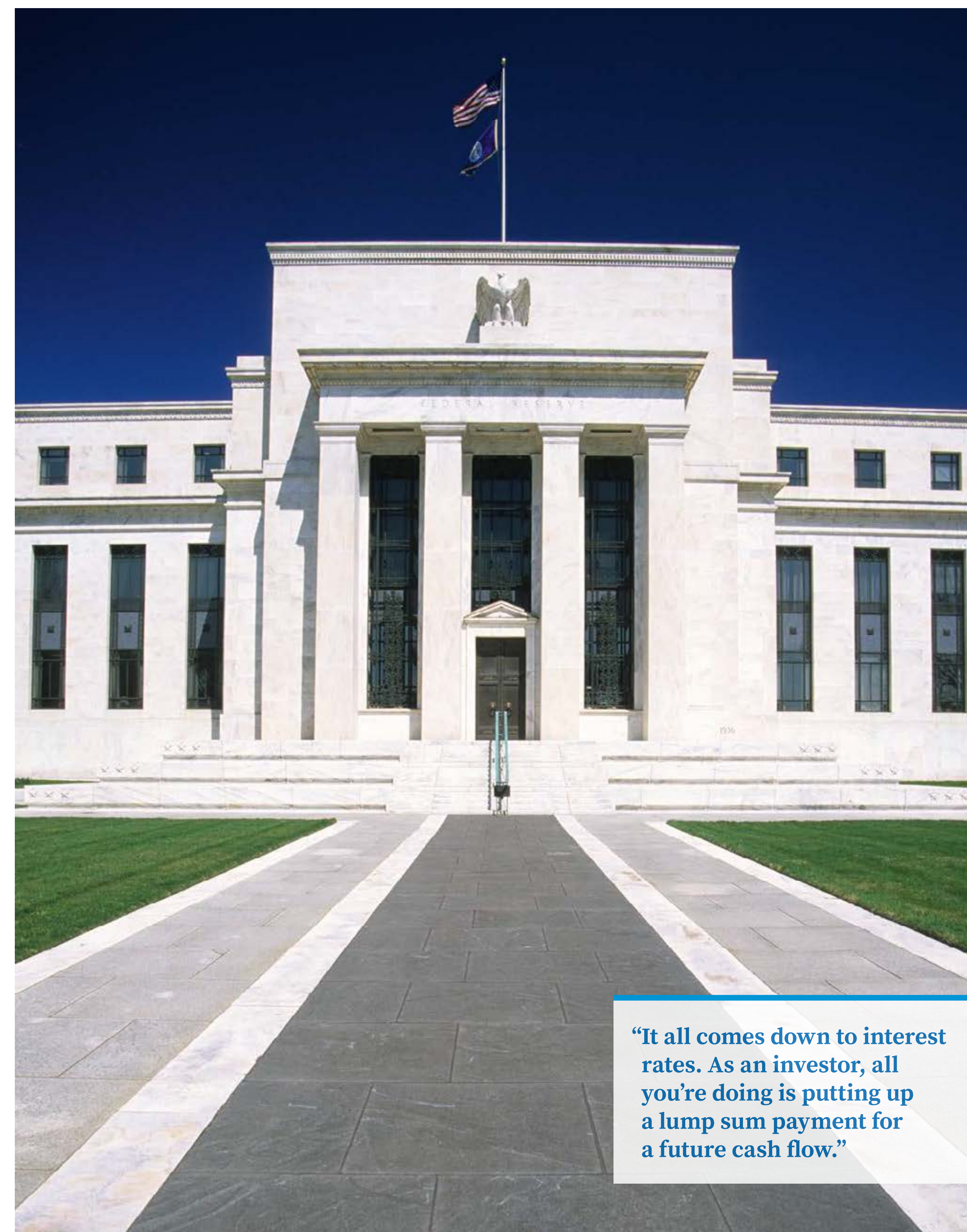
"It all comes down to interest rates. As an investor, all you're doing is putting up a lump sum payment for a future cash flow."

Ray Dalio, Founder Bridgewater Associates

In our view, all true investors are value investors. To be an investor, you must assess the intrinsic value of a business and compare that assessment to the price at which that investment can be purchased. Any person who buys an investment without first assessing the intrinsic value is a speculator, not an investor. In evaluating the intrinsic value of a company an investor must do two things: estimate the amount of cash a business will generate between now and judgement day; and determine the appropriate interest rate to discount the future cash flows to present value. At Magellan, we believe you can predict with more certainty the future cash flows for an outstanding business with entrenched competitive advantages than you can with a mediocre business. If we cannot reasonably predict the likely cash flows a business will generate over time, we will pass on the opportunity. You cannot properly compensate for a large error in the level of future cash flows by adopting a higher discount rate.

Given that the present value of any business is sensitive to the discount rate being used, we spend considerable time thinking about the level of future interest rates. Interest rates are the gravity of markets—low long-term interest rates support higher valuations while higher long-term interest rates suppress valuations. It is concerning that there is so much commentary opining on whether or not share markets are under- or overvalued without any discussion about the likely level of future interest rates. We can confidently predict that many stock markets are presently overvalued if future long-term interest rates are 5% or greater and also predict that they are attractively valued if long-term interest rates are 3% or less in the future.

For many years before the global financial crisis in 2008, it was reasonable to adopt a discount rate of about 9% to 10% based on a long-term interest rate of 5% and an equity-risk premium of about 4% to 5%. A proxy that investors have historically adopted for the interest rate within the discount rate (also known as the 'risk-free' rate) has been the yield on highly liquid long-term government bonds such as 10-year US Treasuries or 10-year German Bunds. Since the global financial crisis, greater uncertainty surrounds the discount rate an investor should adopt in assessing the intrinsic value of a business. Post 2008, the major central banks undertook extremely aggressive monetary policy—they reduced short-term interest rates to very low (and even negative) rates and purchased vast quantities of bonds by expanding their balance sheets



"It all comes down to interest rates. As an investor, all you're doing is putting up a lump sum payment for a future cash flow."

What is a discount rate?

The discount rate consists of a prediction of interest rates and an estimate of the uncertainty surrounding these cash flows known as the 'equity-risk premium'. The equity-risk premium can be viewed as the return required above the 'risk-free rate' offered on bonds guaranteed by a government to compensate for the risk of investing in stocks versus bonds.

(quantitative easing)—that has dramatically lowered, even distorted, long-term interest rates. This has made the prevailing yields of long-term US Treasuries and German Bunds unusually poor benchmarks for assessing the appropriate risk-free interest rate to use for long-term valuation purposes. We believe investors are, in aggregate, adopting risk-free interest rates at levels materially lower than prevailed prior to 2008 but higher than the current long-term yields on US Treasuries and German Bunds. We can't say this for certain because the risk-free interest rate being used by investors in aggregate is not transparent. It is not available on Bloomberg or in a newspaper. In this regard, the uncertainty over the true risk-free rate created by the policies of the major central banks over the past 10 years has made the investment business more challenging.

Without a reliable and transparent proxy, an investor must now make a judgment call about the appropriate risk-free interest rate to use in assessing the intrinsic value of a business. This judgement is complex and requires an investor to assess the likely level of future economic growth and inflation in particular. Both of these factors will be determined by many factors including changes in consumption and investment patterns as populations age; the potential for future improvements in labour productivity; the impact of technological improvements; the impact of increased government debt on future consumption and economic growth; the potential trend towards protectionism; the impact of income inequality on politics, policy and labour relations; and so on.

Our best judgment is that many economies are likely to enter a prolonged period of more modest economic growth and lower inflation than prevailed over the extended period prior to 2008. We have therefore adopted a lower long-term interest rate than we have used in the past to ensure consistency with these economic views. Notwithstanding that we have adopted a lower-than-historical interest rate in our valuation models, we caution that economic cycles exist over the short term and we could experience a spike in inflation that might cause a spike in long-term interest rates. If this happened it would be highly disruptive to markets. ▲

More insights:

- More global equity insights
- Why Magellan is lowering its long-term forecasts for interest rates

WHY global equities are hostage to the US-China clash

by Arvid Streimann,
Head of Macro

When we frame our outlook for global equities around the prospects for their three main drivers, we see the risks as finely balanced.

In early May, US President Donald Trump said a deal with China was "95%" complete. Yet barely two weeks later, Trump had raised tariffs on US$200 billion of Chinese goods, threatened to extend these imposts on all Chinese imports, and blacklisted Chinese telecom Huawei from operating in the US or receiving US-made parts.

Trump's U-turn on China (that he blamed on Beijing reneging) matched the about-face of the Federal Reserve in January when the central bank reversed its thinking and said it was unlikely to raise the US cash rate in 2019. While Trump's reversal undermined stocks, the Fed's change of mind triggered a four-month rally.

Such are the events that have influenced global stock markets over the first half of 2019. Given how haphazard developments can be, when we are assessing the outlook for equities over the next 12 to 18 months, we frame our thinking around the prospects for the three main drivers of equity prices. These are earnings growth (proxied by global growth), interest rates and the level of uncertainty (which can be viewed as the extra return attached to stocks to compensate for their greater risk).

While we always acknowledge that unforeseen events can ruin any forecasts, let's step through these three lenses to explain why we are cautious about equities, starting with the outlook for global growth.

Prospects for the world economy softened in 2018 because central banks tightened monetary policy, international frictions intensified and the stimulus from the US tax cuts of 2017 faded. However, central bank and other government actions have been more pro-growth of late so the risk of a severe contraction has reduced. We see that the biggest determinant of what happens to the growth outlook will be the US-Chinese showdown.

A détente between Beijing and Washington is challenging because a row over trade has widened into a long-term clash over global power where, as with all such disputes, Presidents Trump and Xi are constrained by domestic political factors. We see that there are four possible outcomes of the China-US clash in the next year or so.

The first is a 'treaty' that ends the battle and ushers in an extended period of cooperation. While this would be the best outcome for global growth, it looks to be the least likely. It would require Beijing to slow its modernisation plans while Washington would have to give up some of its global power to a country it views as a long-term rival. Hardening domestic political views—particularly in the US where even Democrats are determined to confront China—prevent the leaders of both countries making the concessions needed for a treaty.

> "A détente between Beijing and Washington is challenging because a row over trade has widened into a long-term clash over global power..."

The second outcome of a 'ceasefire' is more likely. That Trump and Xi would benefit from a ceasefire whereby both make concessions (such as China buys more US goods while the US removes tariffs on Chinese imports) suggests a truce might be more likely than not. Any ceasefire would most likely see the outlook for growth stabilise at a modest level. Achieving more vigorous growth would probably require fresh fiscal or monetary stimulus but partisan politics and the fact that monetary policy is already loose limit the ability of policymakers to spur their economies. A clear threat to the durability of a ceasefire, however, is that Trump, having benefited from a ceasefire-driven rally in stocks, could see political benefit in breaking the truce ahead of the November 2020 election. In that case, the outlook for global growth would be just as uncertain as it is today.

The third outcome is an 'escalation' of hostilities should talks fail. It is difficult to imagine that the global growth outlook would improve under this scenario—but it is also hard to predict how large the deterioration might be. That said, we believe the more caution exercised by policymakers in the past six or so months has reduced, but not eliminated, the likelihood of a recession.

The final option is the 'skirmish' between China and the US continues—essentially, the talks take longer than expected to reach the pivotal point. Under the skirmish scenario, the drag on growth would be less severe than under the escalation scenario.

As ever, the outlook for interest rates depends on the prospects for growth and inflation. The growth outlook just described—most likely modestly below-average to average growth depending on whether or not there is a deal—is broadly consistent with interest rates staying where they are today.

The inflation outlook, however, is a greater source of uncertainty for interest rates. While US inflation, which is about 2% now on multiple measures, looks to be under control, we are alert to the possibility of a wages-driven inflation scare that triggers a spike in interest rates. The US labour market is still tight—the jobless rate is around 50-year lows—and growth is fast enough to squeeze it even further. To be sure, the softer growth outlook has slightly reduced this risk. But it hasn't gone away.

A worrying development in the past year has been Trump placing pressure on the Fed to ease monetary policy. While we don't know how much this contributed to the Fed's change in stance at the start of the year, we know that it could only have worked in this direction. This means that interest rates would be slightly lower than they otherwise would be—as long as inflation stays under control.

Uncertainty is unlikely to decline over the next 12 to 18 months. Trump's behaviour is likely to remain unpredictable, worsening inequality could fan more political flashpoints similar to Brexit, and disharmony is rising in the EU where Italy's finances remain a threat to the euro. International flashpoints (trade wars, the Middle East, North Korea) are other sources of uncertainty, though worst-case developments seem unlikely.

WHY GLOBAL EQUITIES ARE HOSTAGE TO THE US-CHINA CLASH

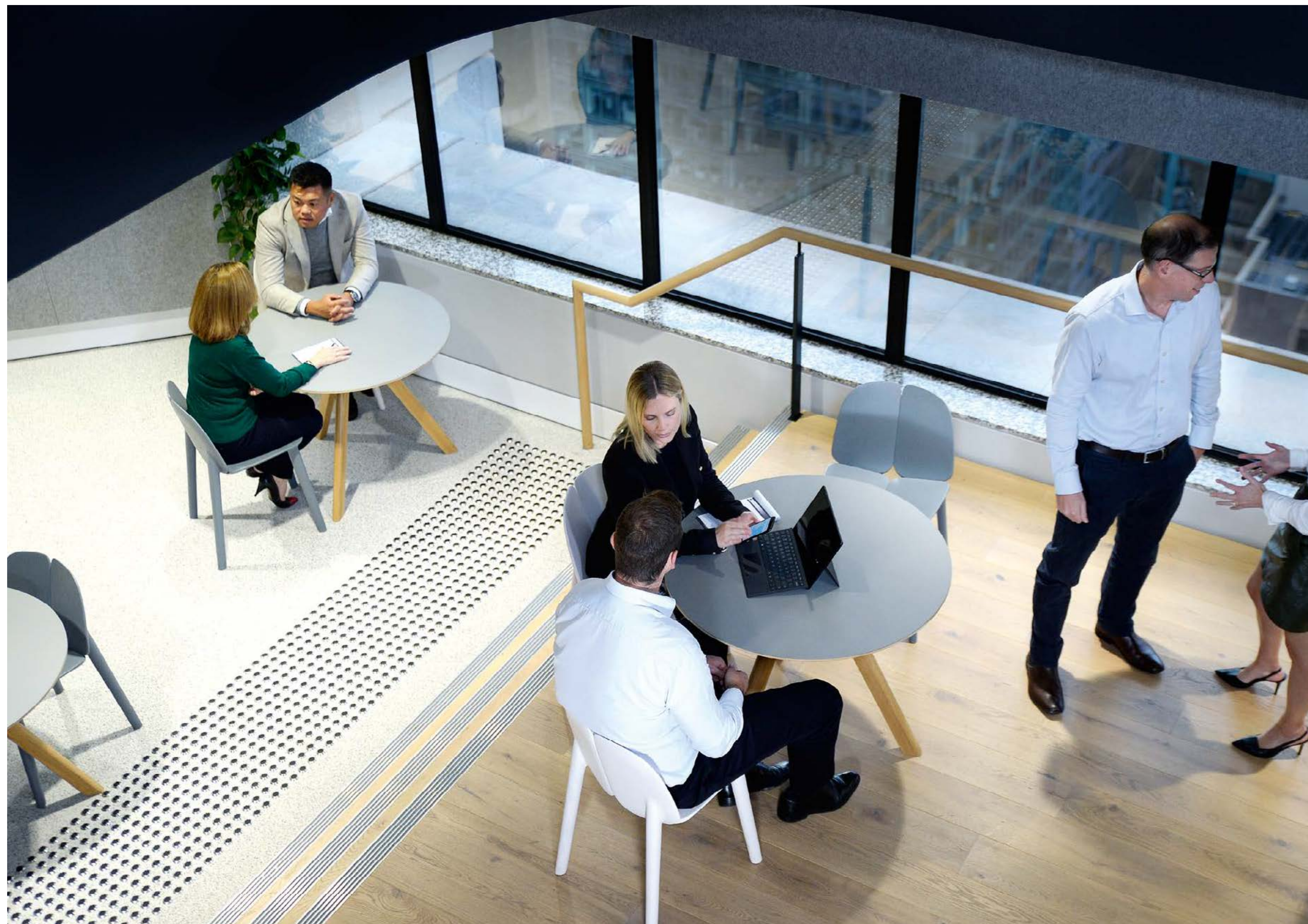
THREE SCENARIOS

These factors should feed economic uncertainty, which will be reinforced by the fact that the Fed has returned to its estimated range for interest rates where they are neither pro- nor anti-growth. Policymaking is relatively easy when tightening from loose settings and more challenging when moving to a restrictive stance.

The result of this analysis is that we identify three potential market scenarios over the next 12 to 18 months. The first is that there is no significant increase in US inflation or a sharp slowdown in global growth, yet the potential exists for further rate cuts. Broad equity indexes would most likely provide satisfactory returns. We think there is about a 50% probability of this scenario.

In the second scenario, global growth slows to a level that forces central banks to respond aggressively enough to make up for the political constraints on governments that slow fiscal stimulus. The size of the policy response depends on the depth of the slowdown, which makes the impact on equity prices difficult to predict. But clearly the more growth slows, the worse it is for equity prices. We place about a 25% probability on this outcome.

The third scenario is that inflation fears produce a spike in interest rates. This scenario has become less likely but nevertheless remains about a 25% probability. A spike in interest rates would weigh on the growth outlook and lift risk premiums, potentially triggering a 20% to 30% fall in equity prices. Much is at stake as the US and China clash continues, and the Fed ponders its next moves. ▲



MEET
the Starbucks CEO

Rosie Malcolm, Head of Franchises, talks with Kevin Johnson, Starbucks CEO

iStock.com/Dkart

Q&A

Starbucks is the world's largest chain of specialty coffee houses, catering to 100 million visits a week. Kevin Johnson is CEO of the company that earned revenue of US$25 billion in 2018. He spoke with Magellan's Rosie Malcolm, the investment analyst who covers Starbucks.

ROSIE I was in China recently and saw how favourably the Starbucks brand is viewed. Can you tell us about the business in China and just how large the opportunity there is for Starbucks?

3,800
STORES IN CHINA

KEVIN We've been in China now for 20 years and over that time we have focused on bringing the Starbucks brand to the Chinese consumer in a way that shows respect for the culture of China. Today, we have about 3,800 stores in China and are opening about 600 stores a year so that number indicates the opportunity that we see before us. There are about 300 million people in China's middle class and that number is projected to double over the next three to five years. China is primarily a tea-drinking culture. But we've introduced them to premium Arabica coffee beverages and they are embracing the Starbucks brand. We think our growth in China can continue for decades.

ROSIE Your largest business continues to be in the US but you started to see a slowdown there a couple of years ago. What went wrong and what are you doing to improve the business in the US?

16.8M
ACTIVE REWARDS CUSTOMERS

KEVIN We did see some slowing in same-store sales in the US but growth has accelerated over the past three quarters or so. The keys to that turnaround were enhancing the in-store experience, beverage innovation and extending our digital reach to more and more customers.

An example of improving the in-store experience is that we have put a lot of effort into managing the morning rush for coffee so that people don't have to wait as long for their order. We've introduced new cold beverages that are helping grow sales in the afternoon to the point where now roughly 50% of our total beverage sales are cold. As for our digital reach, we now have 16.8 million active rewards customers, up 13% since last year. All these improvements have led to an acceleration in our growth in the US.

Rosie Malcolm

Rosie holds a medal from the University of Technology in Sydney where she earned Honours in Finance and has since gained the Chartered Financial Analyst qualification. Rosie started her career in Sydney where she returned to join Magellan in 2017 after 13 years working in finance in New York.

Why a career in finance?

I've always been interested in the flow of money around the world. You learn so much when you follow the money.

What do you like about investing?

I love the research and analytics behind setting probabilities for potential outcomes, and then making investment decisions that optimise the return-risk equation.

Why the franchise sector?

It's such a dynamic sector that sits at the forefront of consumer-driven trends.

Why so long in New York and why return home?

New York is an incredibly energetic and engaging place but the Australian climate is hard to beat.

One surprising thing about you?

I've visited more than 45 countries.

ROSIE **Do you still have an opportunity to continue to grow in the US?**

KEVIN For sure. We have identified that our two best opportunities for growth are the US and China. The US obviously is a more mature market but when we look at our store density in the US we see significant opportunities to build new stores throughout the Sunbelt and other parts of the US while growing sales at our existing stores. Our growth agenda is clear: Our number one strategic priority is accelerating the growth in our two targeted long-term markets of the US and China.

ROSIE **In a complement to Starbucks stores, you recently entered into a global alliance with Nestlé under which Nestlé has the right to sell Starbucks coffee globally in supermarkets and the food-service channel including hotels. What drove the formation of this alliance and how large is this opportunity?**

KEVIN Over time, Starbucks has built a global footprint of 30,000 stores in 78 markets around the world. Our specialty coffee retail business in those stores really established the Starbucks brand in each one of those markets. Two years ago, we were looking at what other strategies we can adopt to grow. We recognised that in the US and Canada we had built our own consumer-goods business selling Starbucks ground coffee through outlets other than our stores. But when we looked at all the other markets around the world our consumer products and food-service business was either nascent or nonexistent. So the strategic question was: Do we want to grow those businesses organically by building consumer goods businesses ourselves in each of those markets or can we do it through a strategic partnership?

We decided to do the latter. We saw that Nestlé has a global reach, is world class at selling consumer goods and food-service products and has the number one single-serve coffee platform in the world with its Nespresso and Dolce Gusto machines. It was clear that forming a global coffee alliance with Nestlé was a better way to capture that incremental opportunity. We are now bringing Starbucks coffee onto the Nespresso and Dolce Gusto platforms and we are leveraging Nestlé's vast global presence in the food service industry and at retail grocery and mass merchants to sell Starbucks coffee.

We're very pleased with how it's going. We began deploying Starbucks coffee on the Nespresso platform in March of this year and by September we will have entered 16 markets with Nestlé. We are rapidly going global in these different channels and expect to launch in additional markets next year.

"Using technology to strengthen and extend our relationship with customers..."

ROSIE **Your background is interesting because before Starbucks you were in the technology industry including positions as the CEO of computer-technology company Juniper Networks and working as a senior executive at Microsoft. What is the role of technology at Starbucks? How does it relate to consumers drinking coffee?**

KEVIN Three decades in the tech industry showed me the role that technology can play in all industries. If you think about the two transformative elements for modern-day retailers, number one would be that you have to create an experience in your store. Number two is that you must extend that experience to a digital mobile connection with your customers.

What Starbucks has done over the past several years is build a loyalty program that is integrated into our mobile app and provides customers with a wide range of capabilities to do mobile order and pay—where they can mobile order ahead and go pick it up in the store. Now with 'Starbucks Delivers', people can place an order and have that order delivered to them. The loyalty program has created a tighter connection and deepened our relationships with customers. As well as using technology to strengthen and extend our relationship with customers, we're using technology in our stores to automate administrative tasks that many of our store partners have to perform such as inventory management or some of the administrative work with labour scheduling. That's freeing up our Starbucks partners to spend more time with customers—and more time with customers helps us grow sales.

ROSIE **What do you think will be the most important driver behind the next decade of success for Starbucks?**

KEVIN Any company that reaches a certain size has to find ways to constantly accelerate the velocity of innovation. Often size and complexity can become the enemy of speed. So at Starbucks, we have transformed the way we work internally to embrace the entrepreneurial spirit so that we can unleash the passion and the creativity and the energy to innovate in ways that are relevant to our customers, inspiring to our partners and meaningful to our business. Starbucks must maintain the ability to be adaptable and innovate in ways that keep the brand fresh and relevant for the customer. And that is what brings customers back into our store. Our challenge is the balance of staying true to the mission and the culture that built this great company while having the courage to reimagine and reinvent the way that we can stay relevant to our customers around the core of our business. ▲

Business quality MATTERS

Magellan's investment edge comes from finding quality businesses that stand the test of time.

Vihari Ross, Head of Research at Magellan

In the future, when you wake up your hot coffee will be ready, the fridge will have reordered your groceries and a drone will already have delivered them that morning. A digital assistant will inform you it's a little chilly outside and summon your autonomous vehicle to take you to the office. While there, you will collaborate in virtual reality with colleagues around the world, as high-speed internet makes the link-up as clear as real time. Later you will go to your friend's 150th birthday party.

This might seem like science fiction, but it is a reality well underway to being created by some of the world's highest-quality businesses such as Alphabet, Amazon and Microsoft.

Those of you who know Magellan will know that our focus has always been on quality businesses. For us this approach makes a lot of sense—by looking only at those companies that we consider have the best economics, we are setting our investors up for better outcomes as well as reducing the risk of material capital losses.

There are thousands of companies listed on world exchanges yet at Magellan we regard our eligible universe of potential investments to be only about 150 companies. These are the businesses that we have deemed to be of sufficient quality to consider for investment, a hurdle that requires a rigorous dive into the economics of the business and the industry in which it operates.

> "For us, the largest determinant of quality is the presence of an 'economic moat'..."

But what does quality mean? For us, the largest determinant of quality is the presence of an 'economic moat'; that is, a sustainable competitive advantage that protects the economics of the business and enables it to accrete value for its shareholders over time.

However, it's not just about identifying the existence of such an advantage, but also identifying what are the key factors driving that advantage and how dependent the business is on good management for generating these robust outcomes. Sometimes the truly strong businesses are revealed when even poor management teams are unable to undo their favourable economics!

If, however, businesses can be identified that have strong moats, have sensible management as agents of shareholder capital, possess the ability to invest capital at high rates of return and have predictable outcomes or discernible tailwinds that can be used to build conviction, then we are positioning our lens towards those businesses that are most likely to succeed. This is at the core of what our investment committee process seeks to achieve.

Of course, the subsequent step is to determine which of these stocks is then trading at a reasonable price, and then (subject to portfolio construction considerations, including risk controls) which high-conviction investments will be made at a point in time.

SUSTAINABILITY IN MOATS

The factors that drive an economic moat can be varied and evolving. The business might have a structural or size advantage that enables it to be the lowest-cost producer and beat its competitors on price such as Google can via the return on investment achieved by advertisers on its platform and can Lowe's, the US retailer of home-improvement goods. The business might own a unique brand or franchise that resonates with its customers, conferring it with true pricing power as has French luxury-goods conglomerate Louis Vuitton-Moët Hennessy.

A network effect or two-sided market is another source of moat that is incredibly difficult to unwind. This is evident in the platforms operated by payment networks such as Visa. In this case, the two sides—card users and card-accepting merchants—support the utility of the platform. That is, the more Visa card holders there are, the more vendors want to accept them, and the more places that accept cards, the more people want to use them. This network is self-reinforcing over time: since the first cards were issued in 1958 Visa's network has grown into a business that intermediates more than US$11 trillion in global payments spent via 3.3 billion cards issued by 16,000 financial institutions connected to 50 million merchants worldwide.

Equally important to this discussion, however, is the question: Are the advantages we have identified sustainable? This is a critical piece of our analysis as our assessment of quality must be forward-looking. It might be tempting to look at history alone and see which businesses have had the best returns on capital over time, but this might prove to be a poor guide as to the business's future.

> **"Identifying quality goes hand in hand with identifying risk."**

Identifying quality goes hand in hand with identifying risk. Disruption, though an emotive word, whether driven by changing technology or changing consumer preferences, in reality simply reflects the way people are now and will in future live their lives.

The earliest two-sided markets were newspapers, where greater readership encouraged greater advertising sales upon the limited real estate of the printed page. Only one side of such a market needs to be disrupted for the network to collapse; in this case, as we all know, it was the movement of readership onto online platforms and away from print.

Advantages related to the low-cost labour in certain countries are being disrupted as the cost of capital goods declines rapidly. A robotic palletiser used to move product from distribution centres through to supermarket shelves now costs only US$25,000 compared to US$1 million five years ago. This means that for many multinationals seeking to cut costs, it now makes sense to replace low-cost labour in emerging economies with low-cost capital—a remarkable shift in relative advantages. Unilever, for example, added 1,000 robots to its cohort in the last year and intends to grow this to a fleet of 10,000 in coming years. Nike is investing in localised manufacturing, intending to autonomously produce customised footwear on demand.

And, of course, Amazon has changed the playing field for retailers and goods producers alike in its ongoing drive to lower prices and usurp commoditised brands with its own.

Further, there is indeed a plethora of other disruptive factors at play, including cloud computing, the dominance of social media, growth in on-demand video content, the trend towards health and wellness, and automated manufacturing and advancement in artificial intelligence technology among many others that require careful analysis of the implications for businesses.

It is important to identify whether or not a company will be a winner from these changes, be immune or be threatened and, if the latter, will it suffer a mere speed hump or face an existential threat to the moat around its business? Some of these identified risks might take 10 or 20 years to play out.

At Magellan, this focus on quality businesses such as Alphabet, Amazon, Microsoft and others represents the core of our investment philosophy and goes directly to achieving our investment objectives of absolute returns coupled with capital protection for investors. ▲

This time it's DIFFERENT

Global politics is at its most unstable since 1945 because the West's main competitors see the norms of the rules-based international order as threats to their regimes and as barriers to their ambitions.

Michael Morell is the former deputy director and acting director of the Central Intelligence Agency, where he also served as the Agency's top analyst. Today, he is the Global Chairman of the Geo-Political Risk Practice at Beacon Global Strategies and an adviser to Magellan.

The US and its allies (including Australia) face the most challenging global security environment in decades. There have been more dangerous times, but there has never been a time when security challenges are as numerous, complex and interrelated or evolve at the speed at which they do today. The result is a world that is more unstable than at any time since World War II, one where great-power conflict is more likely than at any time since the Cold War.

The most significant threat we face is the weakening of the rules-based international order. That order was founded on two proven principles—that economic openness and integration lead to greater and more widely shared prosperity and that political openness, democracy and the protection of human rights lead to stronger societies and more international cooperation.

But this system, a network of alliances and international organisations supported by US leadership, is under great strain. For the first time since the Cold War, there is a debate about whether democracy or authoritarianism is the best form of government and whether the free movement of goods and capital is the best way to organise the global economy.

This challenge is happening for several reasons. It is occurring because of the natural evolution of the world—namely, that the US no longer has the economic dominance it once possessed. It is happening because the US, for domestic political reasons, has stepped back from its global leadership role.

It is transpiring because our main competitors —China, Russia and Iran—see the norms of the system (democracy, human rights, a preference for negotiated solutions to disputes) as threats to their regimes and as barriers to their ambitions. (They want a world in which they gain veto authority over other nations' economic, diplomatic and security decisions.) This competition is so significant that there is an increasing possibility of a great-power war —something the US and its allies have not faced for a quarter of a century.

China is the most significant competitor. Indeed, it is the most formidable competitor the West has faced in its history. The country not only wants to restore its previous place as the dominant nation in Asia but also wants to extend its influence across the globe—and it wants to do so to further its own interests, not those of the world at large. Beijing wants countries in its sphere of influence to think first of what is in China's interest, not their own.

The significance of China's challenge is due to its mix of legitimate economic and diplomatic activities (those conducted within the rules of the current international system) and illegitimate ones. The former include investing massive amounts on educational and cultural programs to enhance its soft power and building its own set of free-trade agreements, institutions and programs that, while legitimate, are designed to exclude the US and increase China's influence. China's illegitimate activities include intellectual property theft for commercial gain, economic coercion to gain technology for its own companies, intervening in the politics of other countries to encourage policies that are more China friendly, seizure of contested territories, and ignoring rulings by international institutions that it does not find to its liking. China's aggressive industrial policies in pursuit of high-technology dominance often are in conflict with international economic norms.

Russia does not have China's economic advantages but it too seeks regional hegemony and great power status, and it is working towards that—entirely in illegitimate ways. Moscow is aggressively using conventional military activities, such as in Georgia and the Crimea; paramilitary activities to hide its interference in places as close to home as Ukraine and as far away as Syria and Libya; energy and trade manipulation to coerce neighbours; support to non-state actors to subvert US foreign policy goals; and cyber-attacks and information warfare to try to influence public opinion in other countries. Russia's aggressiveness rivals that of the Soviet Union at the height of the Cold War.

"It is too early to say whether or not the current diplomatic efforts will significantly reduce or eliminate the North Korean nuclear threat, but the signs are not good."

Like Russia, Iran has vivid memories of its imperial past and has aspirations for regional hegemony that come with them. It sees the US-led order in the Middle East, including the existence of Israel, as a roadblock to that hegemony. It is using illegitimate approaches to undermine the US and its allies, including supporting terrorists and insurgent groups in the region, all designed to expand its influence and weaken that of the US. Iran's ambitions to develop a nuclear weapon remain a key concern.

In addition to the revisionist powers, the rogue regime in North Korea is a major regional and strategic threat to the US. Kim Jong-un's primary objective is the survival of his regime, and he has long seen his strategic weapons program (the ability to attack the US homeland and bases and allies in Asia with nuclear weapons) as the key to deterring the US from moving against him and to coerce the US and its allies to provide the assistance he needs to survive.

It is too early to say whether or not the current diplomatic efforts will significantly reduce or eliminate the North Korean nuclear threat, but the signs are not good. Diplomatic success would be a major inflection point in US-North Korean relations, while diplomatic failure could lead again to hostile rhetoric and the risk of war.

Along with revisionist and rogue states, the West still faces a revolutionary threat—jihadist terrorism. These terrorists want to establish states governed by Sharia Law, and some even want to bring about a global apocalypse. There are many more jihadist extremists today in more countries around the globe than there were on 11 September 2001 due to state failure brought about by poor governance, regional conflict, and environmental challenges such as severe drought. We will need to defend ourselves from these groups for generations.

This is the strategic environment in which the US and its allies find themselves today. Global strategic stability during most of the post World War II period was hugely additive to global economic success. The lack of stability for the forseeable future is likely to have the opposite effect. Stability is a factor that investors could once take for granted. Not any more. ▲

More insights:

Interview with Former CIA Deputy Director —Michael Morell

My stock PICK

Magellan's core investment philosophy is about building portfolios of high-quality businesses that are bought at attractive prices. We asked four of our analysts to pick their favourite stocks from among the quality businesses they analyse each day.

Infrastructure

YATHAVAN SUTHAHARAN
ON XCEL ENERGY

One of the infrastructure fund's largest holdings, Xcel Energy, is the monopoly provider of electric and gas services to about 3.6 million electric customers and two million gas customers across eight mid-western US states; primarily, Colorado and Minnesota. Xcel Energy is a promising investment because investors can be confident the company will achieve its long-term earnings growth objective of 5% to 7% given its ambitious capital investment plans for at least the next decade.

Xcel Energy's earnings growth is predictable as it is tied to the model of regulation under which utilities operate in the US. The basic quid pro quo is utilities are granted the monopoly right to provide their services to a defined territory in exchange for having their return on capital spend capped. Therefore, the easiest way for a utility to increase earnings is to spend more on capital works. The key constraint on this is ensuring that prices stay affordable for customers.

Xcel Energy plans to grow its capital spending in two main ways. First, the company plans to invest in renewable technologies, mainly by building wind farms, to replace part of the generation capacity lost after closing some of its coal-fired generators.

The company is pivoting to wind farms because the cost of electricity generated by these assets has declined by almost 70% on average over the past decade and the states served by Xcel Energy are some of the windiest in the US. Because fuel costs are passed through, and the fuel for wind farms (wind) is free (unlike coal), the company is well placed to grow shareholder returns without increasing bills for customers as it spends more than US$3.6 billion building wind farms over the next five years. Given that Xcel Energy intends to shut most of its coal-fired generators over the medium to long term, the utility is likely to build more wind farms after 2024.

The other way Xcel Energy will grow capital spending is that it needs to replace ageing transmission and distribution infrastructure, especially power lines, to ensure the electrical grid functions properly. Nearly 25% of the company's 32,000 kilometres of transmission lines have exceeded their useful lives and close to another 20% will need replacing over the next decade. All up, we expect Xcel Energy will spend more than US$10 billion over the next 15 years on new lines.

In conclusion, Xcel Energy is a prime example of the predictable and steady earnings growth that infrastructure and utilities stocks can offer as an investment option. ▲

Consumer goods

HANNAH DICKINSON
ON PEPSICO

PepsiCo is a world-leading consumer company that generates more than US$65 billion in revenue each year from a portfolio of iconic brands sold in over 200 countries. Despite its name, soft drinks only account for about one-third of PepsiCo's profits. The company's prized asset is its savoury snacks business, which has about two-thirds market share in the US, boasts best-in-class operating margins and generates the remaining two-thirds of company profits.

PepsiCo's snacks business, which includes brands like Doritos and Lay's, has delivered consistent sales growth over the past decade, boosted by the rise of on-the-go lifestyles and a shift away from 'three square meals per day'. Healthy eating trends represent a risk to the category but it has so far proved resilient thanks to effective product innovation and positioning of these products as occasional indulgences. While PepsiCo's soft drinks division offers lower growth, the category that includes Gatorade and Mountain Dew is a branded duopoly with Coca-Cola and exhibits rational competitive dynamics.

In a world where macroeconomic and geopolitical uncertainty is rising, 'defensive' companies with established earnings streams and low disruption risk present as attractive investment options. Consumer staples companies like PepsiCo have often outperformed the broader market during such periods in the past. However, a rapidly changing retail and consumer landscape is making many of these companies less defensive than they once were. Factors such as rising private label penetration and the shift towards e-commerce threaten to destabilise entrenched market positions and diminish the power of big brands.

Although PepsiCo is not immune to these upheavals, it is relatively well positioned for a few key reasons. The first relates to underlying consumption drivers—in contrast to categories like tissues or bleach, consumers often buy snacks or drinks to satisfy an immediate impulse, which means they tend to walk into a convenience store rather than buy online and wait a day or more for the product to arrive. Further, taste and marketing are likely to be more persuasive than price, making familiar brands more appealing than private labels.

Another factor is PepsiCo's size. This places it in a powerful negotiating position vis-à-vis fragmented retail outlets, thereby improving its ability to maintain prices and keep its products on the shelves—whether physical or virtual.

The last key pillar against disruption is PepsiCo's distribution system. In contrast to most of its competitors that rely on retailers to place their products on the shelves, PepsiCo operates an extensive direct-to-store delivery system in the US, using a truck fleet numbering in the thousands (and one that is larger than the US Postal Service's). The system gives PepsiCo control of product freshness, presentation, marketing and merchandising at the point of sale. It enables the swift rollout of new products and campaigns and helps to minimise out-of-stocks on high-turnover items. Replicating this expensive infrastructure and expertise would be near-impossible for smaller rivals, which should give PepsiCo an enduring competitive edge.

Over the long term, we think these advantages mean that PepsiCo is capable of delivering mid-single-digit revenue growth and high-single-digit earnings growth. ▲

Technology

DAVID CHAMBERS
ON APPLE

Apple is among the largest companies in the world. The company enjoys strong brand recognition globally as do its flagship products, most notably the iPhone. While you often hear about the success of Apple Watch, Apple TV, iPad and even the likelihood of an Apple Car, the company's success is built on the iPhone and iPhone-related services, which generated about 80% of Apple's revenue and represented about 90% of Apple's gross profit in fiscal 2018.

For all of Apple's success, people warn that there are few consumer hardware vendors that maintain competitive advantages over time. Yet Apple is unlikely to lose relevance as Blackberry and Nokia phones did because Apple's extensive 'ecosystem' effectively makes the purchases of Apple devices a form of subscription payment to access the platform.

Apple's plan to expand its business is simple — grow the number of Apple users and sell each of those users more Apple products and services.

The number of people who use iPhones now totals about 900 million. The big opportunity to grow this number is in emerging markets because rising income is expected to make Apple's 'aspirational' products more affordable to the growing middle classes there.

Once people become Apple users they tend to stay. People are loyal for a number of reasons. They value the way Apple products work seamlessly together—say the way iPhone and AirPods do. People find it a hassle to switch from iOS as they are reluctant to learn a new system. Many want to associate with the cool brand, which Apple is, particularly in emerging markets. Users want to maintain access to apps such as Facetime that are found only on the iOS system, and keep services such as their photo collections in iCloud.

Apple's ability to generate revenue from its users is constantly improving. The mobile platform gives Apple a captive audience to which it can sell new devices and services such as AirPods (wireless earphones), Apple Watch, Apple TV, Apple Music (music subscription), Apple Pay (payments), HealthKit (health wearables) and HomeKit (home automation). The more devices and services sold, the more valuable the platform becomes and the harder it is for users to leave Apple.

As good as Apple's business model is, there are risks. One trend to watch is the length of time people hold onto their iPhones before replacing them—the time between upgrades is getting longer; it's more a question of how much longer. Another risk is Apple's exposure to China, from where Apple generates about 20% of its revenue. The problems here are that Apple users in China are typically less loyal, regulators have targeted Apple before and might again, and increased anti-US sentiment could hurt Apple sales. Another risk to monitor is rising competition from Android. While switching costs to Android are meaningful, people would bear them if Android became a vastly superior system compared with iOS—for example, if Android offered a much better digital assistant.

Even after considering these risks we believe Apple is an attractive investment at today's prices. ▲

Healthcare

JOHN WYLIE
ON HCA HEALTHCARE

In 1968, not long after the US government started supporting health coverage for the aged, HCA was established when two doctors and a businessman formed a partnership to operate the Park View Hospital in Nashville, Tennessee. Today, HCA is the largest and most-advantaged hospital operator in the US. HCA cares for 26 million patients each year, eight million emergency visits and 220,000 baby deliveries. HCA has the largest or second-largest market share in 19 of the 20 states where it has built networks.

HCA's structural advantage is driven by four key attributes. First, most of HCA's 185 hospitals and beds are in markets that benefit from predictable patient growth due to net migration and ageing populations. Patient growth is critical because hospitals are expensive to build and have hefty fixed operating costs. Indicative of this pressure, more than 25% of US hospitals are unprofitable, which helps mitigate HCA's reimbursement risk. This is because whenever politicians attempt to reduce the standard fees every hospital receives for a procedure, they pay a political price if this forces struggling hospitals to close.

Second, HCA is run efficiently and benefits from scale economies. Disciplined resource allocation results in operating margins two to three times the industry average. Being this efficient more than offsets the cost of capital disadvantage HCA faces because most of its competitors are not-for-profit operators.

Third, HCA has consistently invested in network expansion and increased its share of privately insured patients, which are more profitable to treat. HCA's private patient revenue is about twice the revenue from the same government-funded procedure. This patient mix benefit is compounded by HCA's superior bargaining power with private insurers due to dominant local market share.

Finally, in addition to hospitals, HCA operates 2,000 sites of care that include surgery centres, freestanding emergency rooms, urgent care centres and physician clinics. This network breadth helps accommodate patient, physician and payer preferences for the site of care and frees inpatient capacity for more acute (and higher margin) procedures.

Despite HCA's advantaged position, shareholders are exposed to regulatory risks. Long-debated proposals to radically reform the fragmented US healthcare system have the potential to erode HCA's advantages, especially HCA's excess returns from treating private patients.

While balancing near-term regulatory risks is complex, HCA is an attractive investment. Our forecast returns are asymmetrically skewed to the upside and the investment case is further supported by the fact that HCA's cash flows are not overly sensitive to economic conditions. ▲

INFRASTRUCTURE

offers growth in addition to income

Gerald Stack, Head of Investments and Head of Infrastructure

The view that infrastructure and utility stocks are yield plays is mistaken because these stocks offer growth in addition to income. And that growth is often favourably priced.

The business model for toll roads follows a well-worn path. In exchange for investing in critical infrastructure and helping support capacity on the roads, governments allow the toll-road operator to collect tolls for a defined period and to increase those charges on a regular basis to allow for inflation.

The traffic on these roads is highly reliable. Time has shown that when tolls rise, even if only in line with inflation, some users decide to switch to the toll-free alternative. The customers who switch have the effect of increasing congestion on the alternative toll-free routes, which in turn makes the tolled route appear more attractive to drivers as it now flows faster than its toll-free alternative. This difference leads drivers back to the tolled road. These dynamics explain, for instance, why traffic on Sydney's Eastern Distributor grew 118% over the 18 years to 2018 despite tolls increasing 151% over the same period. Such is the value to motorists of the time savings toll roads deliver combined with the benefit motorists place on knowing roughly when they might arrive somewhere.

The Eastern Distributor is a six-kilometre stretch that is majority owned by Transurban, the ASX-listed stock that benefits from similar steady increases in revenue from its other 16 toll roads in Australia, Canada and the US. A progressive climb in revenue and earnings from these roads is the main reason why Transurban has been a great company to own over the long term. The other reason is that these long-term earnings increases have been higher than the investment market expected. That is to say, investors have consistently underestimated Transurban's long-term earnings growth.

Infrastructure and utilities companies are expected to generate reliable low-risk earnings streams but they are not often expected to generate such healthy earnings growth. That some infrastructure and utility companies can grow their revenue by more than expected, year in year out, means that investing in these assets holds the potential for higher investment returns than might be expected at face value. It means that those who invest in well-chosen infrastructure stocks such as airports, toll roads, railway operations and regulated utilities can benefit not just from reliable earnings but potentially also from long-term earnings growth delivered in the predictable way that investors expect from this investment option.

To be sure, it's not easy to judge that stocks are mispriced. Magellan seeks to take a long-term view of the assets it invests in and this perspective can differ in important ways compared with the view of the broader investment market, which typically focuses on a shorter-term outlook. It must be said that many infrastructure stocks are labelled as substitutes for low-yielding fixed-income investments. This reputation of infrastructure and utility stocks as 'bond proxies' or 'yield plays', however, is pertinent only over the short term and misses this valuable long-term growth thematic.

The fact is that many companies providing essential services offer much growth potential over the long term. Utilities such as American Water Works and US electricity grid operator WEC Energy have generated an average compounded annual growth in earnings per share of more than 7% from 2010 to 2018. Infrastructure companies have achieved similar results. The combination of growth and income is what makes a well-chosen portfolio of infrastructure and utilities an appealing investment option.

Growth is an important variable when investing, but it's one that is often overlooked when considering the benefits of infrastructure investing. Our analysis suggests that not only do infrastructure assets offer reliable earnings today, but also, they offer reliable growth.

REGULATED GROWTH

Utilities are natural monopolies providing essential services. Due to this competitive strength, they are regulated to ensure they don't abuse their monopoly position. This economic regulation provides for a fair and predictable return to the utility owners on the capital they have spent to build the utility. Under this regulatory framework, utilities can increase their earnings by investing in new capital expenditure projects, approved by the regulator, as the utility will be permitted to increase its earnings to reflect this additional investment. At the same time, regulators are conscious that any price increases can lead to frustrated consumers. A regulator's job is to balance this, ensure that investment is truly essential and ensure utility bills are kept under control.

"The tension between a utility's desire to invest and the regulator's desire to keep prices low is a key issue."

The tension between a utility's desire to invest and the regulator's desire to keep prices low is a key issue. A valid question to ask is: How can regulated utilities grow earnings given the resistance to boosting prices for users? The solutions can be that the regulator is willing to let utilities invest more to improve their services—say, to improve the reliability and safety of their networks. Or it could be that utilities are benefiting from declining costs of the resource they offer to users, which helps keep down costs for customers and gives regulators more room to allow companies to invest on the understanding they will be allowed to increase earnings. Another is that companies prune their operating costs, which similarly reduce the pressure on customer bills and again allows for more investment in networks.

Atmos Energy, the US's largest fully regulated natural-gas-only distributor, is benefiting from both an improvement in its services and from the current low levels of the cost of natural gas they deliver to customers. What's unusual about the US natural-gas market is that much of the country's network needs renewing because, due to an historical lack of maintenance, it has become dangerous—in 2010, a gas pipeline exploded in San Francisco and levelled 35 houses and killed eight people. But it takes time and money to improve the network.

Of prime importance in our investment thesis is that Atmos has sanction to spend US$8 billion from 2018 to 2022 to (mostly) upgrade its pipelines. From this, it is expected that the company's invested capital will nearly double over that time and we expect that the regulator will be more amenable to higher prices on Atmos connections as this expenditure will improve safety. At the same time, Atmos can keep costs down for users because national gas prices have fallen to about 25% of where they were in 2008 due to the US fracking revolution boosting supply. Atmos has posted average annual earnings per share growth of 8.3% from December 2010 to December 2018.

VOLUME-BASED GROWTH

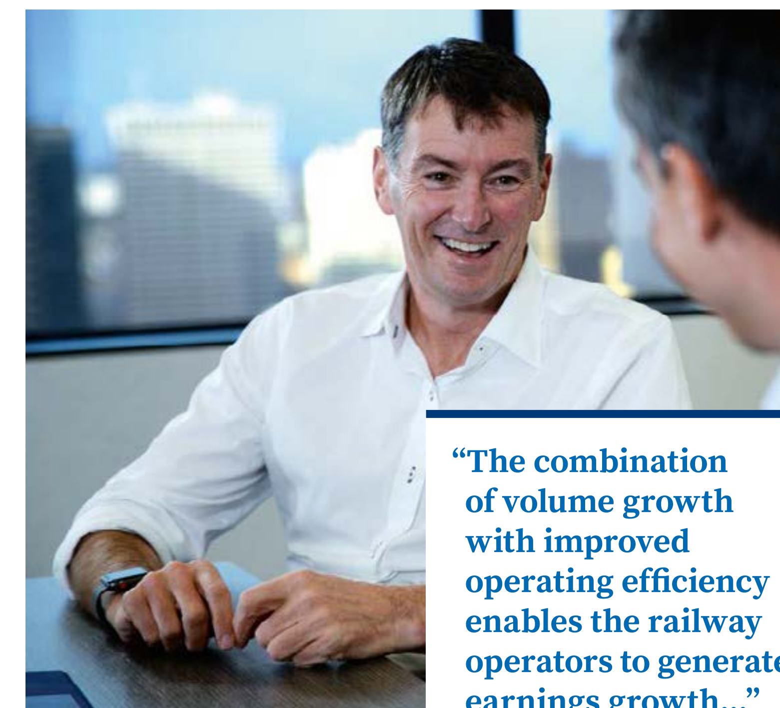
Infrastructure companies, which often face regulation over the prices they can charge, secure earnings growth from rising demand for their services. As with the Transurban example, toll-road revenue and earnings grow in line with increased patronage. Economic regulation of toll roads is typically focused on price, rather than earnings, and most contracts allow the toll road to increase prices to compensate for inflation. Patronage usually rises over time as the population rises and wealth increases.

Airport operators also benefit from higher patronage. In 2018, aeroplanes carried more than four billion passengers worldwide through the world's airports, up from about two billion in 2006 as the world got wealthier and flying became cheaper. Improving wealth and declining travel costs reflect underlying structural trends that we expect to boost airport patronage for the foreseeable future.

ADP, a 51% government-owned group, is one of the companies benefiting from more flights because, among the airports it owns around Paris and outside France, it operates Charles de Gaulle airport from where a plane leaves or arrives every 30 seconds. ADP has posted average annual growth in earnings per share of 8.3% from 2006 to 2018. Aena of Spain, which is the world's biggest operator of airports, is benefiting from the same growth in aviation passengers. Aena was only privatised in 2015 but has posted average annual growth in earnings per share of 17.9% from 2015 to 2018.

Companies that own telecom towers have benefited from the enormous surge in demand for wireless data from the internet and mobile devices in recent years. Worldwide there are an estimated 3.4 million telecom towers. One of the biggest tower operators is Crown Castle International of the US, which owns more than 40,000 communications towers in the US that provide co-location space to wireless carriers. The company has been a major beneficiary of the growth in data transmission and remains well positioned to benefit from continued growth in mobile data traffic, which is forecast to increase tenfold in the next five years. Crown Castle adopted a real estate investment trust structure in January 2014 and has posted average annual funds from operations per share growth of 12.6% from December 2013 to December 2018.

Railway operations in North America is another part of the listed infrastructure universe enjoying robust growth in demand. One reason is that demand has risen for commodities easily moved by rail such as potash, grains and oil. The other is that a shortage of truck drivers boosted trucking costs, which meant that rail operators could charge more per load and still be the more economical and reliable option. Another boost to the profitability of these stocks is that railway operators have become more efficient. By doing more with less—in what's known as 'precision scheduled railroading'—railroad operators are reducing congestion on major routes through better traffic management, decreasing the number of trains and investing in better infrastructure. Operators are now running fewer but longer trains at faster average speeds and have reduced unnecessary headcount. The combination of volume growth with improved operating efficiency enables the railway operators to generate earnings growth and the outlook is for these trends to continue over the long term.



"The combination of volume growth with improved operating efficiency enables the railway operators to generate earnings growth..."

Canadian Pacific is one railroad operator benefiting from higher demand and improved efficiency. The company that operates across Canada and into the US Midwest and northeast has generated average annual growth in earnings per share of 11.8% from 2006 to 2018.

Such is the longer-term growth offered by everyday infrastructure such as toll roads, railways, airports and telecom towers. Where such growth can be expected well into the future for structural rather than cyclical reasons, this provides potentially attractive investment opportunities that offer not just reliable earnings but also reliable earnings growth. ▲

View more on infrastructure:

- Infrastructure insights
- Build wealth with confidence
- Eight benefits of listed over unlisted infrastructure

The ethics OF AI

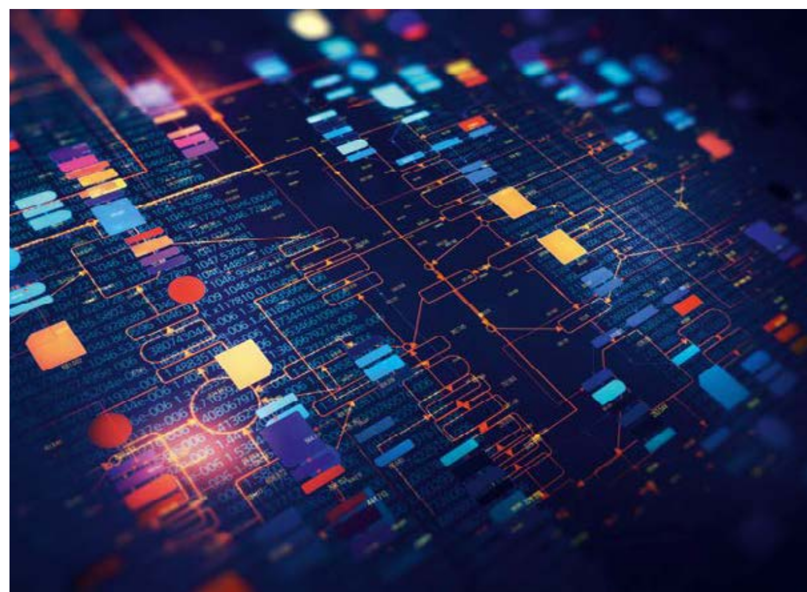
by Michael Collins,
Investment Specialist

AI is being deployed at a faster rate than its ethical issues can be properly identified and resolved. The response in time is likely to be more regulation.

In the Wisconsin city of La Crosse in 2013, Eric Loomis, then in his early 30s, pleaded guilty to eluding police in a stolen car. The judge sentenced Loomis, who had a criminal record, to six years in jail, the longer end of possible terms.

So? Well, the judge based Loomis's prison term partly on the recommendations of an artificial-intelligence, or AI, program that uses secret algorithms to assess the risk a person poses. In Loomis's case, the Compas report showed "a high risk of violence, high risk of recidivism". Loomis appealed the length of the sentence saying he had no opportunity to evaluate the algorithms and their assessment based on his gender violated 'due process rights'.

The court's use of AI to sentence Loomis attracted much criticism because it raised questions about the role that 'big data' and AI are playing in everyday decisions. Expect more such controversies for society to solve as AI's rapid deployment is creating many ethical issues—a gentler way of saying AI is capable of ill as well as good.



AI is certainly causing concern. Among potential dangers, AI might be used by despots who want to enforce censorship, micro-target propaganda and impose society-wide controls on citizens. Many think the disinformation, conspiracy theories and echo chambers that AI-driven recommendations engines can promote on social media deepen social tensions. AI can be used in warfare and has the potential to make swathes of workers redundant. AI can act discriminately or invasively. Many worry about the privacy violations surrounding the data used to train and improve AI algorithms.

Many of the concerns about AI are tied to the nature of the algorithms. People worry that society is handing over decision making to secret software codes—essentially instructions—that have no understanding of the context, meaning or consequences of what they do. They fret algorithms are being entrusted with tasks they are incapable of fulfilling and they magnify the biases and flaws of their human coders and the data inputted. People are concerned about how algorithms can manipulate behaviour and promote digital addiction. They see they can be gamed by attention seekers.

People are tackling some of the ethical issues involved. Researchers have withheld AI because of possible misuse. Governments, notably the EU, have acted to protect privacy. The EU is developing an AI code of ethics. Companies are creating principles around AI use and setting up ethical boards to monitor its deployment. Platforms are using AI to inhibit the ability of other algorithms to spread viral extremist content. Data gatherers are better protecting user information. US tech employees are rebelling against AI's use in warfare.

But not enough might be happening to limit AI's possible harm. People seem blasé about how their online data trails are used to sway their spending and thinking. Businesses appear far more focused on generating positive returns from AI than in overseeing and mitigating the negative side effects. Autocratic states are using AI to tighten their control over media and communication. When ethical issues are raised, valid rebuttals can result in inaction. Authorities with genuine concerns appear hobbled because of the public's fondness for the cyberworld.

Be aware that AI is being deployed at a faster rate than ethical issues can be properly identified and resolved. The moral concerns encircling AI are likely to become big enough political issues in time to warrant much public scrutiny and government intervention.

To be sure, many of the ethical issues raised are broader than AI. Some of the tech's biggest ethical issues, such as gene-edited babies, are away from AI. Many of the ethical issues swamping AI are everyday ones that are as old as humans—AI is just a new setting for them.

But that fresh setting looms so large AI is bound to spark controversies, especially since AI's political weakness is that it's easy to demonise. Expect a rigorous human overlay on AI in due course. The challenge for authorities will be to limit AI's possible harm and Loomis-style controversies without suppressing its advantages.

> "...not enough might be happening to limit AI's possible harm."

FLAWED CODES

The algorithms that power AI are reams of code that can process data efficiently to assist in making parole, medical, military, work-dismissal, university-admission and many other decisions. These instructions can perform vast analysis within these narrow functions at speeds beyond human ability.

But algorithms lack many human qualities and smarts. These algorithms do not understand cause and effect. They lack common sense, emotion, imagination and senses of humour or irony. They have no free will. They can have inbuilt biases, generally delivered by the data that drives them. They can be gamed and outsmarted. The ethical issue is: How can society justify the handing over of vital decision-making to AI when it falls well short of human ability in so many ways?

The ethical cloud over algorithms is highlighted when they are set tasks beyond their design limits. 'Content moderation' algorithms that scour for inappropriate content keep much out. But they have often failed to remove all copies of an offensive video because people can alter the footage enough to outwit algorithms that can only look for earlier versions.

A wider ethical issue is whether or not AI-dependent platforms should be responsible for the content shared and viewed on their platforms, whereas now they bear little legal responsibility. Another ethical issue is whether or not private companies should be monitoring the 'cyber public square'—that private companies are acting as censors and judges of what's appropriate. And what is the responsibility of users in all this? Enough people interact with the most sensational and vilest content to prompt the AI set up to boost their engagement to feed them more of the same.

Another ethical issue to resolve with AI is whether or not to let algorithms operate in situations with infinite possibilities (such as powering driverless cars on open roads) when, for now, AI works best in defined conditions (such as translation or, in the case of driving, keeping a car within white lines). The death of a pedestrian in Arizona by a self-driving car in 2018 highlighted how AI programs can prove fatal in uncontrolled situations. A central ethical issue here is whether or not the hopes that autonomous vehicles might one day reduce road fatalities is worth the loss of life in the experimental stage.

Another prominent flaw of algorithms and data is that they promote the biases of code writers and data. The common problem here is that data, as a record of the past, feeds algorithms the prejudices of the past. While no one defends discrimination per se and code writers can attempt to overcome this flaw, the ethical issues require subjective solutions.

Data with gender, race and other biases and the limits on the abilities of algorithms are prompting calls for algorithms to be regulated. Companies could come under pressure to reveal their algorithms, as France is doing with those used by the government. The tech industry, however, resists such transparency, saying their formulae are intellectual property.

Such ethical issues around AI are prompting reassessments of the technology, as shown by talk of a second 'AI winter' (when research and deployment stalls), a surge in warnings of its potential harm, and by a spate of books highlighting its flaws, such as Meredith Broussard's *Artificial Unintelligence*.

While the Loomis appeal was rejected by the Wisconsin Supreme Court in 2016 and the US Supreme Court in 2017 refused to hear the case, the ethical issues it raised will be among many that surround AI as its deployment brings many benefits to society. ▲

More insights:
Magellan insights

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Cognitive BIAS

To be a successful investor over the long term, we believe it is critical to understand, and hopefully overcome, common human cognitive or psychological biases that often lead to poor decisions and investment mistakes. Cognitive biases are 'hard wired' and we are all liable to take shortcuts, oversimplify complex decisions and be overconfident in our decision-making process. Understanding our cognitive biases can lead to better decision making, which is fundamental, in our view, to lowering risk and improving investment returns over time. Here I've outlined key cognitive biases that can lead to poor investment decisions.

by Hamish Douglass, Chairman and Chief Investment Officer

COGNITIVE BIAS

10

Cognitive biases that can lead to investment mistakes

1 CONFIRMATION BIAS

Confirmation bias is the natural human tendency to seek or emphasise information that confirms an existing conclusion or hypothesis. In our view, confirmation bias is a major reason for investment mistakes as investors are often overconfident because they keep getting data that appears to confirm the decisions they have made. This overconfidence can result in a false sense that nothing is likely to go wrong, which increases the risk of being blindsided when something does go wrong.

To minimise the risk of confirmation bias, we attempt to challenge the status quo and seek information that causes us to question our investment thesis. In fact, we are always seeking to invert the investment case to analyse why we might be wrong. We continually revisit our investment case and challenge our assumptions. It is much more important to ask yourself why you are wrong than why you are right. Charlie Munger, the Vice Chairman of Berkshire Hathaway and Warren Buffett's business partner, said:

"Rapid destruction of your ideas when the time is right is one of the most valuable qualities you can acquire. You must force yourself to consider arguments on the other side."

In our view, the strength of many of history's most accomplished scientists and mathematicians has been their ability to overcome their confirmation bias and to see all sides of a problem. Carl Jacobi, the famous 19th century mathematician, said:

"Invert, always invert."

2 INFORMATION BIAS

Information bias is the tendency to evaluate information even when it is useless in understanding a problem or issue. The key in investing is to see the wood from the trees and to carefully evaluate information that is relevant to making a more informed investment decision and to discard (and hopefully ignore) irrelevant information. Investors are bombarded with useless information every day, from financial commentators, newspapers and stockbrokers, and it is difficult to filter through it to focus on information that is relevant. In our view, daily share price or market movements usually contain no information that is relevant to an investor who is concerned about the medium-term prospects for an investment, yet there are entire news shows and financial columns dedicated to evaluating movements in share prices on a moment-by-moment basis. In many instances, investors will make investment decisions to buy or sell an investment on the basis of short-term movements in the share price. This can cause investors to sell wonderful investments due to the fact that the share price has fallen and to buy into bad investments on the basis that the share price has risen.

In general, investors would make superior investment decisions if they ignored daily share-price movements and focused on the medium-term prospects for the underlying investment and looked at the price in comparison to those prospects. By ignoring daily commentary regarding share prices, investors would overcome a dangerous source of information bias in the investment decision-making process.

3 LOSS AVERSION/ ENDOWMENT EFFECT

Loss aversion is the tendency for people to strongly prefer avoiding losses than obtaining gains. Closely related to loss aversion is the endowment effect, which occurs when people place a higher value on a good that they own than on an identical good that they do not own. The loss aversion or endowment effect can lead to poor and irrational investment decisions, whereby investors refuse to sell loss-making investments in the hope of making their money back.

The loss-aversion tendency breaks one of the cardinal rules of economics; the measurement of opportunity cost. To be a successful investor over time you must be able to properly measure opportunity cost and not be anchored to past investment decisions due to the inbuilt human tendency to avoid losses. Investors who become anchored due to loss aversion will pass on mouth-watering investment opportunities to retain an existing loss-making investment in the hope of recouping their losses.

In our view, all past decisions are sunk costs and a decision to retain or sell an existing investment must be measured against its opportunity cost. To increase our focus on measuring opportunity cost, we run the Magellan Global Fund like a football team where we have the ability to put many players onto the paddock at any one time. This forces us to focus on the opportunity cost of retaining an existing investment versus making a new investment in the portfolio. We believe many investors would make superior investment decisions if they constrained the number of investments in their portfolios as they would be forced to measure opportunity cost and make choices between investments. Buffett often gives the illustration that investors would achieve superior investment results over the long term if they had an imaginary punch card with space for only 20 holes and every time they made an investment during their lifetime they had to punch the card. In Buffett's view, this would force investors to think carefully about the investment, including the risks, which would lead to more informed investment decisions.

4 INCENTIVE-CAUSED BIAS

Incentive-caused bias is the power that rewards and incentives can have on human behaviour, often leading to folly. The sub-prime housing crisis in the US is a classic case study in incentive-caused bias. Notwithstanding that financiers knew that they were lending money to borrowers with appalling credit histories, and in many cases people with no incomes or jobs and limited assets ('NINJA' loans), an entire industry, with intelligent people, was built on lending to such people.

> "One of the key factors we focus on... is our evaluation of agency risk."

How did this happen on such a massive scale? We believe the answer can be found in the effect of incentives.

At virtually every level of the value chain, there were incentives in place to encourage people to participate. The developers had strong incentive to construct new houses. The mortgage brokers had strong incentive to find people to take out mortgages. The investment banks had a big incentive to pay mortgage brokers to originate loans so that they could package and securitise these loans to sell to investors. The ratings agencies had strong incentive to give AAA ratings to mortgage securities to generate fees, and banks had a big incentive to buy these AAA-rated mortgage securities as they required little capital and produced enormous, leveraged profits.

Warren Buffett said:

"Nothing sedates rationality like large doses of effortless money. After a heady experience of that kind, normally sensible people drift into behaviour akin to that of Cinderella at the ball. They know that overstaying the festivities – that is, continuing to speculate in companies that have gigantic valuations relative to the cash they are likely to generate in the future – will eventually bring on pumpkins and mice. But they nevertheless hate to miss a single minute of what is one helluva party. Therefore, the giddy participants all plan to leave just seconds before midnight. There's a problem, though: They are dancing in a room in which the clocks have no hands."

One of the key factors we focus on in making investment decisions is our evaluation of agency risk. We evaluate the incentives and rewards systems in place to assess whether or not they are likely to encourage management to make rational long-term decisions. We prefer companies that have incentive schemes that focus management on the downside as well as the upside and encourage management to return excess cash to shareholders. For instance, executive compensation that is overly skewed towards share-option schemes can encourage behaviour that is contrary to the long-term interests of shareholders, such as retention of earnings above those that can be usefully reinvested into the business.

5 OVERSIMPLIFICATION TENDENCY

In seeking to understand complex matters humans tend to want clear and simple explanations. Unfortunately, some matters are inherently complex or uncertain and do not lend themselves to simple explanations. In fact, some matters are so uncertain that it is not possible to see the future with any clarity. In our view, many investment mistakes are made when people oversimplify uncertain or complex matters.

Albert Einstein said:

"Make things as simple as possible, but no more simple."

A key to successful investing is to stay within your 'circle of competence'. A key part of our 'circle of competence' is to concentrate our investments in areas that exhibit a high degree of predictability and to be wary of areas that are highly complex and/or highly uncertain. We believe that forecasting the volume growth for Colgate-Palmolive, Coca-Cola or Procter & Gamble is relatively foreseeable over the next 10 years and is well within our circle of competence. Investing in financials is far more complex and we are disciplined to try to ensure we do not overly simplify the inherent complexity of a major financial institution. If we cannot understand the complexity of a financial institution, we simply will not invest, no matter how compelling the 'simplified' investment case may appear. Notwithstanding that our investment team has over 50 years of combined experience in analysing financial institutions, there are many institutions that we believe are simply too difficult to assess.

In our view, the majority of the investment mistakes we have made can in large part be attributed to our cognitive biases, where we have fallen susceptible to confirmation bias, have oversimplified a complex problem or strayed outside our circle of competence. Unfortunately, these cognitive biases are 'hard wired' and we will make mistakes in the future. Our aim is to have systems and processes in place that minimise the number of mistakes we will inevitably make due to our cognitive biases.

6 HINDSIGHT BIAS

Hindsight bias is a tendency to see beneficial past events as predictable and bad events as not predictable. In recent years, we have read many explanations for poor investment performance that blame the unpredictability and volatility of markets. In our view, some of the explanations are as credible as a school child complaining to the teacher that 'the dog ate my homework'. While we have made mistakes, we will not blame our mistakes on so-called unpredictable events. In fact, not a single mistake we have made over the past five years could be attributed to an unpredictable event or market volatility but rather to errors of judgment. We have always sought to candidly outline our investment mistakes in our Investor Letters and will continue to do so.

> **"…hindsight bias is a dangerous state of mind as it clouds your objectivity…"**

In our view, hindsight bias is a dangerous state of mind as it clouds your objectivity in assessing past investment decisions and inhibits your ability to learn from past mistakes. To reduce hindsight bias, we spend significant time upfront setting out in writing the investment case for each stock, including our estimated return. This makes it more difficult to 'rewrite' our investment history with the benefit of hindsight. We do this for individual stock investments and macroeconomic calls.

7 BANDWAGON EFFECT (OR GROUPTHINK)

The bandwagon effect, or groupthink, describes gaining comfort in something because many other people do (or believe) the same. Buffett tells a story about the oil prospector who dies and is in a large crowd of other oil prospectors who are all waiting at the gates of heaven. All of a sudden, the crowd disperses. Saint Peter asks the oil prospector why the crowd dispersed. The oil prospector said it was simple: "I shouted, 'Oil discovered in hell.'" Saint Peter asks the oil prospector why he would like to be let into heaven. After thinking for a while the oil prospector says, "I think I will go and join my colleagues as there may be some truth in that rumour after all."

In our view, to be a successful investor, you must be able to analyse and think independently.

Speculative bubbles are typically the result of groupthink and herd mentality. We find no comfort in the fact that other people are doing certain things or that people agree with us. At the end of the day, we will be right or wrong because our analysis and judgement is either right or wrong.

In avoiding the pitfalls of the bandwagon effect, I am reminded of the Robert Frost poem, *The Road Not Taken*, where he writes:

**"Two roads diverged in a wood, and I—
I took the one less travelled by,
And that has made all the difference."**

While we don't seek to be contrarian, we have no hesitation in taking 'the road less travelled' if that is what our analysis concludes.

8 RESTRAINT BIAS

Restraint bias is the tendency to overestimate one's ability to show restraint in the face of temptation. This is most often associated with eating disorders. Most people are wired to be 'greedy' and want more of a good thing or a 'sure winner'. For many people, money is the ultimate temptation. The issue for many investors is how to properly size an investment when they believe they have identified a 'sure winner'. In our opinion, many investors have come unstuck by overindulging in their 'best investment ideas'. In our opinion, 'sure thing' investments are exceptionally rare and many investments are sensitive to changes in assumptions, particularly macroeconomic assumptions.

To overcome our natural tendency to buy more and more of our best ideas, we hard-wire into our process restraints or risk controls that place maximum limitations on stocks and combinations of stocks that we consider to carry aggregation risk. The benefit of risk controls to mitigate the human tendency to greed is well captured by the quote from Oscar Wilde:

"I can resist everything except temptation."

9 NEGLECT OF PROBABILITY

Humans tend to ignore or over- or underestimate probability in decision making. Most people are inclined to oversimplify and assume a single point estimate when making investment decisions. The reality is that the outcome an investor has in mind is their best or most probable estimate. Around this outcome is a distribution of possible outcomes, known as the distribution curve. The shape of the distribution curve of possible valuation outcomes can vary dramatically depending on the nature and competitive strength of an individual business. Businesses that are more mature, less subject to economic cycles and have particularly strong competitive positions tend to have a tighter distribution of valuation outcomes than businesses that are less mature or more subject to economic cycles or are more subject to competitive forces. Examples in our portfolio would include Alphabet (the owner of Google). In our portfolio-construction process, we distinguish between different businesses to account for the different risks or probabilities of outcomes.

Another error investors make is to overestimate or misprice the risk of low probability events. That does not mean that 'black swan' events cannot happen but overcompensating for very low probability events can be costly for investors. We seek to mitigate the risk of 'black swan' events by including in the portfolio a meaningful proportion of businesses (purchased at appropriate prices) where we believe the distribution curve of valuation outcomes is particularly tight. We term these businesses as high-quality long-cycle businesses. We believe the risk of a permanent capital loss from a 'black swan' event in this part of the portfolio is low. If we have real insight that the probability of a 'black swan' event is materially increasing and the pricing is attractive enough to reduce this risk, we will have no hesitation in making a material change to the portfolio, particularly our holdings of shorter-cycle businesses. The issue for investors is assessing when the probability of such an event is materially increasing. It is usually not correlated with the amount of press or market coverage on a particular event.

"Most people are inclined to oversimplify and assume a single point estimate when making investment decisions."

Warren Buffett once said:

"The worst mistake you can make in stocks is to buy or sell stocks based on current headlines."

10 ANCHORING BIAS

Anchoring bias is the tendency to rely too heavily on, or anchor to, a past reference or one piece of information when making a decision. There have been many academic studies undertaken on the power of anchoring on decision making. Studies typically get people to focus on items such as their year of birth or age before being asked to assign a value to something. The studies show that people are influenced in their answer, or anchored, to the random number that they have focused on prior to being asked the question.

From an investment perspective, one obvious anchor is the recent share price. Many people base their investment decisions on the current share price relative to its trading history. In fact, there is an investment school of thought (called technical analysis, an amusing term in itself) that bases investing on charting share prices. Unfortunately, where a share price has been in the past presents no information as to whether or not a stock is cheap or expensive. We base our investment decisions on whether or not the share price is trading at a discount to our assessment of intrinsic value and we have no regard as to where the share price has been in the past. We also have little regard to the prevailing share price in deciding to invest the time to research a new investment opportunity. We know share prices change and we want to have a range of well-researched investment opportunities so that we can act on an informed basis when prices move below our assessment of intrinsic value. ▲

Two perspectives on MAGELLAN

Emma Kirk, Key Account Manager, talks with Hamish Douglass, Chairman and Chief Investment Officer, and Brett Cairns, Chief Executive Officer

WATCH VIDEO

Q&A

Hamish Douglass, Chairman, Chief Investment Officer and co-founder of Magellan Financial Group, and Brett Cairns, the Chief Executive Officer, swapped the CEO and chairman roles about a year ago. They discuss the different perspectives they now have on the company.

EMMA Hamish, can you tell us about your role as chairman?

HAMISH I'm delighted with the job change. Brett as CEO is effectively doing the jobs I didn't enjoy doing and he's doing them much better than I did. As chairman, I think about the strategy for the group. Brett and I work together on what we need to do to advance Magellan.

While the chairman role is important, my main role is being the chief investment officer. Brett becoming the CEO means I can spend more time focused on the CIO functions and that's important for our clients. I look after the investment process at Magellan and am the lead portfolio manager on our global equity strategies. The investment team reports to me. I meet our key clients regularly.

> **"...I think about the strategy for the group."**

EMMA Brett, can you describe your role?

BRETT As Hamish looks after the investment side of the business, I am in charge of everything else, which includes the distribution and marketing sides of our business. On top of these, I oversee our operations and our finance areas, the business management area, the legal function and, importantly, the governance and advisory group where much of our product development sits. It's a busy job and I think the switch in roles is working well.

EMMA Brett, as CEO, you have stewardship for the culture at Magellan. Could you describe the culture at Magellan and why you think it has been an integral part of our success?

BRETT Culture is a big focus at the moment, particularly in financial services. Magellan has an advantage in many ways in that we are relatively small—we employ only about 120 people—and we're still young, just 13 years old. That means our senior people have worked in other companies for large parts of their careers. We've been good at adopting the best of these experiences and leaving behind the parts that people didn't like. The core of our culture is based on a deep sense of fairness and respect. We pitch in to help each other. Ultimately, it's based on the common-sense approach of treating people as we'd like to be treated ourselves.

120
EMPLOYEES

We also recognise that Magellan is a business and right from the start when Hamish and Chris Mackay established the business the goal was to have the people who work at Magellan think and act like owners of the business. When you act and think like an owner, you put clients first. We also want people to take the next step and genuinely act in a partnering way with clients, investors and, indeed, shareholders.

EMMA Hamish, can you tell us about the investment philosophy at Magellan?

HAMISH Our investment philosophy is to have a concentrated portfolio of high-quality businesses and to buy these great stocks at attractive prices. If we can get these things right, we will do well for our clients but it's not easy. We have to continually assess whether or not a great business will remain great. It wasn't that long ago when television stations and newspapers were great businesses before their competitive advantages were taken away by the internet.

EMMA Hamish, what can people expect should they invest with Magellan?

HAMISH First of all, we want people to have a realistic investment time frame and a minimum of five years is a realistic investment time frame. Second, we want people to be in sync with us in terms of the return expectations. We have set a long-term return expectation net of all fees of 9% per annum for our core global strategy. That doesn't mean we will achieve a 9% return every year. Some years we might achieve 30%. Other years, the returns might be negative. There is some correlation with what markets do.

That said, people shouldn't overly focus on how our strategy might perform in the short term versus the market index. Our portfolios look nothing like the MSCI World Index, which tracks about 1,600 stocks from 23 developed markets. On average, our core global portfolio holds 25 of the world's best businesses. We have some confidence but no guarantee that a portfolio of high-quality stocks bought at attractive prices will over time deliver the return objectives we have set ourselves.

If over time our clients receive compounded returns of 9% per annum, then they will probably double their money every eight years or so. I think that is a satisfactory and realistic outcome for our investors to expect.

"I like coming to work every day and interacting with people who have deep and growing knowledge to find out how we can do things better."

EMMA Hamish, what is the biggest lesson that you've learned while at Magellan?

HAMISH There are positive and negative lessons. On the negative side, when you're investing it's inevitable you will make mistakes. The biggest lesson is to learn from those mistakes. Don't try and rewrite history. Don't try and justify that something wasn't foreseeable. It's hard to do because people are wired not to learn from their mistakes.

On the positive side, the biggest lesson was learning about the power of compound interest. It's crucial to find investments supported by structural growth. It is hard to achieve 9% returns from businesses whose revenues are only growing 1% or 2% a year. It's essential to find businesses that can grow at rates approaching 10% a year. They exist. Visa and Mastercard have been wonderful compounders over time. We've invested in the US housing recovery that had a long duration. The home-improvement company Lowe's has benefited from this. Yum! Brands, which owns KFC, Pizza Hut and Taco Bell, is another great compounder. We hope Starbucks can do the same with structural growth.

EMMA Brett, Magellan is known for innovation; particularly, in 2015 it pioneered Australia's first active ETF, the Magellan Global Equities Fund that trades under the MGE ticker. Could you give us an idea of what solutions Magellan might offer in coming years?

BRETT In many ways, what we were trying to do was to simplify things for investors. That's what drove the development of the active ETF. There are various further simplifications that we are working on now. Specifically, we are working on a product that revolves around retirement income. It's not a straightforward area given regulation and other constraints but we are making progress.

EMMA You're both passionate about this business. What do you get out of turning up to work every day at Magellan?

BRETT For me, it's the challenge and being the CEO of a business such as Magellan where we are always learning from what we have done. I like coming to work every day and interacting with people who have deep and growing knowledge to find out how we can do things better.

HAMISH I like the investment game, which is a brutal industry because the scorecard is public. Once you've made a decision the scorecard monitors that decision. I like finding a stock that can be successful such as a Starbucks and then watching how the situation develops. With the team, I enjoy developing people.

When it comes to the chairman role, I see that there are few active funds management businesses in the world that have enduring business models. Every day, we come to work asking: What can we do to simplify things for clients? What can we ultimately do to improve Magellan's business?

Brett and I spend much time talking about this and we often discard ideas. We come up with things and after three months of work we go, well, that's not going to work. It's fun. ▲

AIRLIE

Funds Management

John Sevior, Airlie Funds Management founder

John Sevior explains the origins of Airlie and why, six years later, it made sense to become part of Magellan.

Airlie Funds Management was founded as a boutique fund manager in 2012 to invest in Australian shares for large investors.

The business was set up with simple principles in mind. First, Airlie's primary focus was on delivering strong performance from active investing. Second, we set out to manage only a limited number of funds for a limited number of clients. Another was that the business had to be well run. In practice, these principles translated into putting strong systems in place around a talented group of investment professionals who employed a bottom-up investment approach to deliver superior medium-to long-term returns for clients.

When we became part of Magellan Asset Management in 2018, it's fair to say not everyone saw the logic of Airlie (that already had about A$6 billion in funds under management) joining a bigger group. But when we sat down after five years of being in business and projected out five years in terms of where we thought our industry was headed, we concluded there was a better owner for Airlie than the people who set it up.

For us the obvious partner was Magellan because of the trust we had in the quality of the business and the people, and the commonality of cultures. There is a 'can do' attitude at Magellan. Everyone we met cared. We were impressed with the robustness of Magellan's administrative and operational systems. Even with the phenomenal success Magellan has achieved, it remains a no-nonsense place where its people believe in the worth of active investing. On top of these critical components, we already knew and deeply respected the people who ran Magellan. We had known the founders of Magellan, Hamish Douglass and Chris Mackay, for more than 15 years.

Magellan's ownership should provide Airlie investors with the comfort that we are grouped with some of the best professionals in the business. Being in this environment has lifted the team at Airlie and provides more business security at a time when the legal and compliance burden on financial services firms is high.

Before Magellan, Airlie's focus was on institutional investors. The expertise of Magellan made it easier for us to enter the retail market. We did this in 2018 when we launched the Airlie Australian Share Fund, a long-only concentrated portfolio of Australian stocks. Like Magellan, Airlie considers high-quality companies to be those that have sustainable competitive advantages that translate into sustainable excess returns. ▲

"For us the obvious partner was Magellan because of the trust we had in the quality of the business and the people, and the commonality of cultures".

Investing with Magellan gives you exposure to the world's best companies

INVEST IN THE WORLD'S BEST

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MAGELLAN GLOBAL FUND
MAGELLAN GLOBAL FUND (HEDGED)

Hamish Douglass, Chairman and Chief Investment Officer

The Magellan Global Fund is a core holding that invests in the world's best 20 to 40 global stocks. The fund aims to deliver 9% p.a. over the economic cycle while reducing the risk of permanent capital loss. The hedged version of the fund aims to protect returns from currency movements.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

The portfolio recorded a return after fees of 20.2% for the 12 months, while the hedged version's return after fees was 13.8%. The stocks that performed best included the investments in Starbucks (+3.7% of the total portfolio return), Microsoft (+2.5%), Visa (+2.0%), Yum! Brands (+1.7%), Mastercard (+1.6%) and HCA Healthcare (+1.5%). Starbucks rose after the coffee chain spoke of plans to improve delivery in China, boosted marketing in the US to revive sales growth, posted global sales growth that topped expectations and said it would cut about 5% of the workers at its headquarters. Microsoft gained after releasing earnings results that consistently showed strong growth in cloud revenues. Visa and Mastercard benefited from sustained growth in consumer spending and greater card use in a world going more cashless. Yum! Brands rose after same-store sales and profit numbers of the owner of KFC, Pizza Hut and Taco Bell persistently outdid expectations. HCA rallied after the US hospital chain reported higher-than-expected profits and revenue due to higher patient numbers and an increase in higher-paying procedures.

The only stocks to detract from performance to any extent were Kraft Heinz (-2.8%) and Wells Fargo (-0.2%). Kraft Heinz staged its big tumble in the March quarter after the packaged-goods company wrote down the value of underperforming brands by US$15.4 billion, reported earnings that fell short of expectations due to higher costs, and said it was subject to a probe by regulators. Wells Fargo fell as the US bank faced challenges to boost revenue due, in part, to the restrictions regulators have imposed following a series of scandals. We have exited Kraft Heinz and Wells Fargo.

OUTLOOK

Equity prices rose in the June quarter even though risks remain elevated.

While the likelihood of a deal between China and the US plummeted in May, an agreement to restart talks following the G20 meeting in June raised hopes that the two sides would ultimately settle their differences. This buoyed equity prices, as did central banks signalling their willingness to loosen monetary policy in order to counter risks to growth. But the risk persists that protracted China-US negotiations could undermine global growth so much the deterioration would not be offset by a deal or easier central bank settings.

We see three broad scenarios for equity markets. The first, which we rate about a 50% probability, is that there is no significant increase in US inflation or a sharp slowdown in global growth, with further rate cuts likely. Under this outcome, broad equity indexes would most likely provide satisfactory returns.

In the second scenario (25% probability), global growth slows to a level that forces central banks to respond more aggressively. Needless to say, the more growth slows, the worse it is for equity prices. The final scenario (25% probability) is that interest rates rise on inflation concerns. A spike in interest rates would weigh on the growth outlook and lift risk premiums, potentially triggering a 20% to 30% fall in equity prices.

Notwithstanding the risks confronting equities, we reduced the cash position in the strategy from 18% to 8% over the 12 months, allocating that cash primarily to 'defensive' stocks. This reflects our decision to adopt a lower-than-historical interest rate in our valuation models and our view that the probability of the third scenario occurring has fallen over the past six months.

Performance as at 30 June 2019 [1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan Global Fund	20.2	17.5	16.0	18.5	16.3	12.3
Magellan Global Fund (Hedged)	13.8	15.5	11.5	–	–	12.1

1 Calculations are based on exit price with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Magellan Global Fund inception 1 July 2007, Magellan Global Fund (Hedged) inception 1 July 2013. Returns denoted in AUD.

PORTFOLIO POSITIONING

Top-10 holdings at 30 June 2019 [2]

Security	Weight (%)
Microsoft	7.3
Facebook	6.7
Visa	5.9
Starbucks	5.8
Alphabet	5.7
Apple	5.4
HCA Healthcare	4.6
SAP	4.5
Mastercard	4.4
Novartis	4.0
Total	**54.3**

Notwithstanding our cautionary outlook, we expect our portfolio of 27 high-quality businesses to generate a satisfactory return over the medium to long term.

Capitalism is brutal. Typically, excess profit opportunities are competed away in short order. Investing in companies unable to defend against capitalism's relentless march is not compatible with our objectives. High-quality businesses, however, are the rare subset of the investment universe because they have an ability to resist the natural forces of capitalism, and sustainably generate excess returns and appreciate in value over the long term. We refer to companies possessing this quality as having an 'economic moat' or sustainable competitive advantage.

In addition to the realities of capitalism, as the pace of technology change around the world accelerates, many traditional industries are facing increasing disruption risks. At the same time, the changing world presents opportunities. The tides of disruption will buoy certain industries and business models while threatening others. And if the world experiences a long-term future of more modest growth and lower inflation, businesses that benefit from enduring, structural tailwinds—those businesses that can generate compounding returns for an extended period—are likely to become increasingly valuable.

Recognising the forces of capitalism, disruption and compounding, we seek to build a portfolio of investments in advantaged and undervalued businesses that will be on the right side of history over the long term.

The core investment themes in our portfolio at 30 June 2019 were:

- Enterprise-software companies (Microsoft, Oracle and SAP) that comprised 16% of the portfolio. These companies are deeply integrated within the operations of their business customers, which lowers the risk these customers will switch software vendors. They are benefiting from the transformational growth in cloud computing.
- Payment-platform companies (Visa, Mastercard and American Express) that represented 13% of the portfolio. These are classic 'network effect' business models that connect millions of merchants with billions of cardholders. These companies provide the 'rails' upon which global electronic payment systems run.
- Advertising technology-platform companies (Alphabet, the owner of Google, and Facebook) that represented 12% of the portfolio. These companies benefit from the shift in marketing expenditure from traditional media properties to digital platforms.
- Healthcare companies (HCA Healthcare, Novartis and Reckitt Benckiser) that represented 12% of the portfolio. These companies benefit from ageing populations that spend more on healthcare. Consumers place a high value on trusted brands for health-related products, lowering the risk of disruption.
- The Chinese consumer (Starbucks and others) that comprised 9% of the portfolio. The Chinese middle class is forecast to double in size over the next five to 10 years with the high-end cohort growing even faster. These companies are benefiting from this expanding consumer class and deriving 50% or more of their future revenue growth from the Chinese consumer.
- An investment in Apple that represented 5% of the portfolio. We believe that Apple is a highly advantaged consumer-services platform with high consumer loyalty and a long-term opportunity to monetise the one billion Apple devices in use.
- An 8% holding in cash (held in US dollars).

Hamish Douglass

2 Top-10 holdings of Magellan Global Fund

MAGELLAN GLOBAL EQUITIES FUND (MGE)
MAGELLAN GLOBAL EQUITIES FUND (CURRENCY HEDGED) (MHG)

Hamish Douglass, Chairman and Chief Investment Officer

The Magellan Global Equities Fund (Managed Fund) is an ASX-listed fund (ASX:MGE) that invests in the world's best 20 to 40 global stocks. The fund is a core holding that aims to deliver 9% p.a. over the economic cycle while reducing the risk of permanent capital loss. The hedged version of the fund, Magellan Global Equities Fund (Currency Hedged) (Managed Fund) (ASX:MHG) aims to protect returns from currency movements.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

The portfolio recorded a return after fees of 20.0% for the 12 months, while the hedged version delivered a return after fees of 13.9%. The stocks that performed best included the investments in Starbucks (+3.7% of the total portfolio return), Microsoft (+2.5%), Visa (+2.00%), Yum! Brands (+1.7%), Mastercard (+1.6%) and HCA Healthcare (+1.5%). Starbucks rose after the coffee chain spoke of plans to improve delivery in China, boosted marketing in the US to revive sales growth, posted global sales growth that topped expectations and said it would cut about 5% of the workers at its headquarters. Microsoft gained after releasing earnings results that consistently showed strong growth in cloud revenues. Visa and Mastercard benefited from sustained growth in consumer spending and greater card use in a world going more cashless. Yum! Brands rose after same-store sales and profit numbers of the owner of KFC, Pizza Hut and Taco Bell persistently outdid expectations. HCA rallied after the US hospital chain reported higher-than-expected profits and revenue due to higher patient numbers and an increase in higher-paying procedures.

The only stocks to detract from performance to any extent were Kraft Heinz (-2.8%) and Wells Fargo (-0.2%). Kraft Heinz staged its big tumble in the March quarter after the packaged-goods company wrote down the value of underperforming brands by US$15.4 billion, reported earnings that fell short of expectations due to higher costs, and said it was subject to a probe by regulators. Wells Fargo fell as the US bank faced challenges to boost revenue due, in part, to the restrictions regulators have imposed following a series of scandals. We have exited Kraft Heinz and Wells Fargo.

OUTLOOK

Equity prices rose in the June quarter even though risks remain elevated.

While the likelihood of a deal between China and the US plummeted in May, an agreement to restart talks following the G20 meeting in June raised hopes that the two sides would ultimately settle their differences. This buoyed equity prices, as did central banks signalling their willingness to loosen monetary policy in order to counter risks to growth. But the risk persists that protracted China-US negotiations could undermine global growth so much the deterioration would not be offset by a deal or easier central bank settings.

Performance as at 30 June 2019 [1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan Global Equities Fund (MGE)	20.0	17.5	–	–	–	11.9
Magellan Global Equities Fund (Currency Hedged) (MHG)	13.9	15.7	–	–	–	10.5

1 Calculations are based on the monthly ASX released net asset value with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Magellan Global Equities Fund inception 2 March 2015, Magellan Global Equities Fund (Currency Hedged) inception 4 August 2015. Returns denoted in AUD.

We see three broad scenarios for equity markets. The first, which we rate about a 50% probability, is that there is no significant increase in US inflation or a sharp slowdown in global growth, with further rate cuts likely. Under this outcome, broad equity indexes would most likely provide satisfactory returns.

In the second scenario (25% probability), global growth slows to a level that forces central banks to respond more aggressively. Needless to say, the more growth slows, the worse it is for equity prices. The final scenario (25% probability) is that interest rates rise on inflation concerns. A spike in interest rates would weigh on the growth outlook and lift risk premiums, potentially triggering a 20% to 30% fall in equity prices.

Notwithstanding the risks confronting equities, we reduced the cash position in the strategy from 18% to 8% over the 12 months, allocating that cash primarily to 'defensive' stocks. This reflects our decision to adopt a lower-than-historical interest rate in our valuation models and our view that the probability of the third scenario occurring has fallen over the past six months.

PORTFOLIO POSITIONING

Top-10 holdings at 30 June 2019 [2]

Security	Weight (%)
Microsoft	7.3
Facebook	6.7
Visa	5.9
Starbucks	5.8
Alphabet	5.7
Apple	5.4
HCA Healthcare	4.7
SAP	4.6
Mastercard	4.4
Novartis	4.0
Total	**54.5**

Notwithstanding our cautionary outlook, we expect our portfolio of 27 high-quality businesses to generate a satisfactory return over the medium to long term.

Capitalism is brutal. Typically, excess profit opportunities are competed away in short order. Investing in companies unable to defend against capitalism's relentless march is not compatible with our objectives. High-quality businesses, however, are the rare subset of the investment universe because they have an ability to resist the natural forces of capitalism, and sustainably generate excess returns and appreciate in value over the long term. We refer to companies possessing this quality as having an 'economic moat' or sustainable competitive advantage.

In addition to the realities of capitalism, as the pace of technology change around the world accelerates, many traditional industries are facing increasing disruption risks. At the same time, the changing world presents opportunities. The tides of disruption will buoy certain industries and business models while threatening others. And if the world experiences a long-term future of more modest growth and lower inflation, businesses that benefit from enduring, structural tailwinds—those businesses that can generate compounding returns for an extended period—are likely to become increasingly valuable.

Recognising the forces of capitalism, disruption and compounding, we seek to build a portfolio of investments in advantaged and undervalued businesses that will be on the right side of history over the long term.

The core investment themes in our portfolio at 30 June 2019 were:

- Enterprise-software companies (Microsoft, Oracle and SAP) that comprised 16% of the portfolio. These companies are deeply integrated within the operations of their business customers, which lowers the risk these customers will switch software vendors. They are benefiting from the transformational growth in cloud computing.
- Payment-platform companies (Visa, Mastercard and American Express) that represented 13% of the portfolio. These are classic 'network effect' business models that connect millions of merchants with billions of cardholders. These companies provide the 'rails' upon which global electronic payment systems run.
- Advertising technology-platform companies (Alphabet, the owner of Google, and Facebook) that represented 12% of the portfolio. These companies benefit from the shift in marketing expenditure from traditional media properties to digital platforms.
- Healthcare companies (HCA Healthcare, Novartis and Reckitt Benckiser) that represented 12% of the portfolio. These companies benefit from ageing populations that spend more on healthcare. Consumers place a high value on trusted brands for health-related products, lowering the risk of disruption.
- The Chinese consumer (Starbucks and others) that comprised 9% of the portfolio. The Chinese middle class is forecast to double in size over the next five to 10 years with the high-end cohort growing even faster. These companies are benefiting from this expanding consumer class and deriving 50% or more of their future revenue growth from the Chinese consumer.
- An investment in Apple that represented 5% of the portfolio. We believe that Apple is a highly advantaged consumer-services platform with high consumer loyalty and a long-term opportunity to monetise the one billion Apple devices in use.
- An 8% holding in cash (held in US dollars).

Hamish Douglass

2 Top-10 holdings of Magellan Global Equities Fund

MAGELLAN GLOBAL TRUST (MGG)

Hamish Douglass, Chairman and Chief Investment Officer

Stefan Marcionetti, Portfolio Manager

The Magellan Global Trust is an ASX-listed trust (ASX: MGG) that invests in the world's best 15 to 35 global stocks. The fund is a core holding that aims to deliver a cash yield of 4% p.a. while delivering attractive risk-adjusted returns over the medium to long term and protecting investors from the risk of permanent capital losses.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

The portfolio recorded a return after fees of 15.9% for the 12 months. The stocks that performed best included the investments in Starbucks (+4.0% of the total portfolio return), Microsoft (+2.5%), HCA Healthcare (+2.0%), Visa (+1.9%), Mastercard (+1.8%) and Yum! Brands (+1.7%). Starbucks rose after the coffee chain spoke of plans to improve delivery in China, boosted marketing in the US to revive sales growth, posted global sales growth that topped expectations and said it would cut about 5% of the workers at its headquarters. Microsoft gained after releasing earnings results that consistently showed strong growth in cloud revenues. HCA rallied after the US hospital chain reported higher-than-expected profits and revenue due to higher patient numbers and an increase in higher-paying procedures. Visa and Mastercard benefited from sustained growth in consumer spending and greater card use in a world going more cashless. Yum! Brands rose after same-store sales and profit numbers of the owner of KFC, Pizza Hut and Taco Bell persistently outdid expectations.

The only stocks to detract from performance to any extent were Kraft Heinz (-2.7%), eBay (-0.9%) and Wells Fargo (-0.3%). Kraft Heinz staged its big tumble in the March quarter after the packaged-goods company wrote down the value of underperforming brands by US$15.4 billion, reported earnings that fell short of expectations due to higher costs, and said it was subject to a probe by regulators. Online marketplace eBay fell after the company lowered revenue forecasts amid worries about its competitive edge against Amazon. Wells Fargo fell as the US bank faced challenges to boost revenue due, in part, to the restrictions regulators have imposed following a series of scandals. We have exited Kraft Heinz, eBay and Wells Fargo.

OUTLOOK

Equity prices rose in the June quarter even though risks remain elevated.

While the likelihood of a deal between China and the US plummeted in May, an agreement to restart talks following the G20 meeting in June raised hopes that the two sides would ultimately settle their differences. This buoyed equity prices, as did central banks signalling their willingness to loosen monetary policy in order to counter risks to growth. But the risk persists that protracted China-US negotiations could undermine global growth so much the deterioration would not be offset by a deal or easier central bank settings.

We see three broad scenarios for equity markets. The first, which we rate about a 50% probability, is that there is no significant increase in US inflation or a sharp slowdown in global growth, with further rate cuts likely. Under this outcome, broad equity indexes would most likely provide satisfactory returns.

In the second scenario (25% probability), global growth slows to a level that forces central banks to respond more aggressively. Needless to say, the more growth slows, the worse it is for equity prices. The final scenario (25% probability) is that interest rates rise on inflation concerns. A spike in interest rates would weigh on the growth outlook and lift risk premiums, potentially triggering a 20% to 30% fall in equity prices.

Notwithstanding the risks confronting equities, we reduced the cash position in the strategy from 21% to 12% over the 12 months, allocating that cash primarily to 'defensive' stocks. This reflects our decision to adopt a lower-than-historical interest rate in our valuation models and our view that the probability of the third scenario occurring has fallen over the past six months.

Performance as at 30 June 2019[1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan Global Trust (MGG)	15.9	–	–	–	–	16.2

1 Calculations are based on the monthly ASX released net asset value with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Fund inception date 18 October 2017. Returns denoted in AUD.

PORTFOLIO POSITIONING

Top-10 holdings at 30 June 2019

Security	Weight (%)
Facebook	7.8
Microsoft	7.6
Alphabet	6.7
Starbucks	6.7
Apple	6.1
Visa	5.9
HCA Healthcare	5.8
Mastercard	5.1
Reckitt Benckiser	3.8
Yum! Brands	3.6
Total	**59.1**

Notwithstanding our cautionary outlook, we expect that our portfolio of 22 high-quality businesses to generate a satisfactory return over the medium to long term.

Capitalism is brutal. Typically, excess profit opportunities are competed away in short order. Investing in companies unable to defend against capitalism's relentless march is not compatible with our objectives. High-quality businesses, however, are the rare subset of the investment universe because they have an ability to resist the natural forces of capitalism, and sustainably generate excess returns and appreciate in value over the long term. We refer to companies possessing this quality as having an 'economic moat' or sustainable competitive advantage.

In addition to the realities of capitalism, as the pace of technology change around the world accelerates, many traditional industries are facing increasing disruption risks. At the same time, the changing world presents opportunities. The tides of disruption will buoy certain industries and business models while threatening others. And if the world experiences a long-term future of more modest growth and lower inflation, businesses that benefit from enduring, structural tailwinds—those businesses that can generate compounding returns for an extended period—are likely to become increasingly valuable.

Recognising the forces of capitalism, disruption and compounding, we seek to build a portfolio of investments in advantaged and undervalued businesses that will be on the right side of history over the long term.

The core investment themes in our portfolio at 30 June 2019 were:

- Enterprise-software companies (Microsoft, Oracle and SAP) that comprised 14% of the portfolio. These companies are deeply integrated within the operations of their business customers, which lowers the risk these customers will switch software vendors. They are benefiting from the transformational growth in cloud computing.
- Payment-platform companies (Visa, Mastercard and American Express) that represented 14% of the portfolio. These are classic 'network effect' business models that connect millions of merchants with billions of cardholders. These companies provide the 'rails' upon which global electronic payment systems run.
- Advertising technology-platform companies (Alphabet, the owner of Google, and Facebook) that represented 15% of the portfolio. These companies benefit from the shift in marketing expenditure from traditional media properties to digital platforms.
- Healthcare companies (HCA Healthcare, Novartis and Reckitt Benckiser) that represented 12% of the portfolio. These companies benefit from ageing populations that spend more on healthcare. Consumers place a high value on trusted brands for health-related products, lowering the risk of disruption.
- The Chinese consumer (Starbucks and others) that comprised 8% of the portfolio. The Chinese middle class is forecast to double in size over the next five to 10 years with the high-end cohort growing even faster. These companies are benefiting from this expanding consumer class and deriving 50% or more of their future revenue growth from the Chinese consumer.
- An investment in Apple that represented 6% of the portfolio. We believe that Apple is a highly advantaged consumer-services platform with high consumer loyalty and a long-term opportunity to monetise the one billion Apple devices in use.
- A 12% holding in cash (held in US dollars).

Hamish Douglass

Stefan Marcionetti

MAGELLAN HIGH CONVICTION FUND

Hamish Douglass, Chairman and Chief Investment Officer

Chris Wheldon, Portfolio Manager

The Magellan High Conviction Fund is a more concentrated and less constrained version of Magellan's core global strategy. The fund seeks to deliver an attractive risk-adjusted absolute return by investing in eight to 12 of the world's best global stocks. The fund employs an active currency hedging program to reduce the impact of foreign currency exposure when the Australian dollar trades outside its historical range.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

Class A units recorded a return after fees of 13.1% for the 12 months. Class B units returned 13.3% after fees over the same period. The stocks that performed best included the investments in Starbucks (+4.9% of the total portfolio return), Microsoft (+4.0%), Visa (+3.0%) and HCA Healthcare (+2.3%). Starbucks rose after the coffee chain spoke of plans to improve delivery in China, boosted marketing in the US to revive sales growth, posted global sales growth that topped expectations and said it would cut about 5% of the workers at its headquarters. Microsoft gained after releasing earnings results that consistently showed strong growth in cloud revenues. Visa benefited from sustained growth in consumer spending and greater card use in a world going more cashless. HCA rallied after the US hospital chain reported higher-than-expected profits and revenue due to higher patient numbers and an increase in higher-paying procedures.

The only stocks to detract from performance to any extent were Kraft Heinz (-4.7%) and Wells Fargo (-0.1%). Kraft Heinz staged its big tumble in the March quarter after the packaged-goods company wrote down the value of underperforming brands by US$15.4 billion, reported earnings that fell short of expectations due to higher costs, and said it was subject to a probe by regulators. Wells Fargo fell as the US bank faced challenges to boost revenue due, in part, to the restrictions regulators have imposed following a series of scandals. We have exited both of these investments.

OUTLOOK

Equity prices rose in the June quarter even though risks remain elevated.

While the likelihood of a deal between China and the US plummeted in May, an agreement to restart talks following the G20 meeting in June raised hopes that the two sides would ultimately settle their differences. This buoyed equity prices, as did central banks signalling their willingness to loosen monetary policy in order to counter risks to growth. But the risk persists that protracted China-US negotiations could undermine global growth so much the deterioration would not be offset by a deal or easier central bank settings.

We see three broad scenarios for equity markets. The first, which we rate about a 50% probability, is that there is no significant increase in US inflation or a sharp slowdown in global growth, with further rate cuts likely. Under this outcome, broad equity indexes would most likely provide satisfactory returns.

Performance as at 30 June 2019[1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan High Conviction Fund (Class A)	13.1	17.6	16.2	–	–	16.2
Magellan High Conviction Fund (Class B)	13.3	–	–	–	–	12.7

1 Calculations are based on exit price with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Magellan High Conviction Fund (Class A) inception 1 July 2013, Magellan High Conviction Fund (Class B) inception 15 November 2017. Returns denoted in AUD.

In the second scenario (25% probability), global growth slows to a level that forces central banks to respond more aggressively. Needless to say, the more growth slows, the worse it is for equity prices. The final scenario (25% probability) is that interest rates rise on inflation concerns. A spike in interest rates would weigh on the growth outlook and lift risk premiums, potentially triggering a 20% to 30% fall in equity prices.

Notwithstanding the risks confronting equities, we reduced the cash position in the strategy from 18% to 11% over the 12 months. This reflects our decision to adopt a lower-than-historical interest rate in our valuation models and our view that the probability of the third scenario occurring has fallen over the past six months.

PORTFOLIO POSITIONING

Top-10 holdings at 30 June 2019

Security	Weight (%)
Microsoft	14.6
Facebook	13.1
Alphabet	12.9
Visa	9.3
Apple	8.5
HCA Healthcare	8.4
Starbucks	7.4
LVMH	5.1
SAP	5.1
Berkshire Hathaway	4.9
Total	**89.3**

Notwithstanding our cautionary outlook, we expect our portfolio of 10 high-quality businesses to generate a satisfactory return over the medium to long term.

Capitalism is brutal. Typically, excess profit opportunities are competed away in short order. Investing in companies unable to defend against capitalism's relentless march is not compatible with our objectives. High-quality businesses, however, are the rare subset of the investment universe because they have an ability to resist the natural forces of capitalism, and sustainably generate excess returns and appreciate in value over the long term. We refer to companies possessing this quality as having an 'economic moat' or sustainable competitive advantage.

In addition to the realities of capitalism, as the pace of technology change around the world accelerates, many traditional industries are facing increasing disruption risks. At the same time, the changing world presents opportunities. The tides of disruption will buoy certain industries and business models while threatening others. And if the world experiences a long-term future of more modest growth and lower inflation, businesses that benefit from enduring, structural tailwinds—those businesses that can generate compounding returns for an extended period—are likely to become increasingly valuable.

Recognising the forces of capitalism, disruption and compounding, we seek to build a portfolio of investments in advantaged and undervalued businesses that will be on the right side of history over the long term.

At 30 June 2019, the portfolio included:

- Advertising technology-platform companies (Alphabet, the owner of Google, and Facebook) that represented 26% of the portfolio. These companies benefit from the shift in marketing expenditure from traditional media properties to digital platforms.
- Enterprise-software companies (Microsoft and SAP) that comprised 20% of the portfolio. These companies are deeply integrated within the operations of their business customers, which lowers the risk these customers will switch software vendors. They are benefiting from the transformational growth in cloud computing.
- Companies exposed to the Chinese consumer (Starbucks and LVMH) that represented 13% of the portfolio. The Chinese middle class is forecast to double in size over the next five to 10 years, with the high-end cohort growing even faster. These companies are benefiting from this expanding consumer class and deriving 50% or more of their future revenue growth from the Chinese consumer.
- An investment in Visa, a payment-platform company, that represented 9% of the portfolio. Visa possesses a classic 'network effect' business model, connecting millions of merchants with billions of cardholders. The company is one of those that provide the 'rails' upon which global electronic payment systems run.
- An investment in Apple that represented 8% of the portfolio. We believe that Apple is a highly advantaged consumer-services platform with high consumer loyalty and a long-term opportunity to monetise the one billion Apple devices in use.
- An investment in HCA Holdings that represented 8% of the portfolio. HCA Healthcare is the leading healthcare provider in the US, benefiting from an ageing population, with about 48,000 beds across its network of roughly 185 hospitals, 120 surgery centres and 250 urgent-care clinics.
- An investment in Berkshire Hathaway that represented 5% of the portfolio. Berkshire Hathaway is the world's leading reinsurance company and has an extensive portfolio of high-quality businesses and listed investments. It offers a defensive economic profile given the strength of its balance sheet, the diversity of its cash flows, and a proven capability of deploying capital in a value-accretive manner during market turbulence.
- An 11% holding in cash, held primarily in US dollars.

Hamish Douglass

Chris Wheldon

MAGELLAN INFRASTRUCTURE FUND
MAGELLAN INFRASTRUCTURE FUND (UNHEDGED)

Gerald Stack, Head of Investments and Head of Infrastructure

The Magellan Infrastructure Fund seeks to provide efficient access to the stable returns offered by infrastructure and utility stocks, while protecting capital in adverse markets. Infrastructure and utility stocks that will help achieve these aims generally have strong underlying financial performance over the medium to long term, which is expected to translate into reliable, inflation-linked returns. The Fund typically holds between 20 and 40 stocks. The unhedged version of the fund makes no attempt to protect returns from currency movements.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

The portfolio recorded a return after fees of 16.5% for the 12 months, while the unhedged version recorded a return of 20.2%. The stocks that contributed over the 12 months included the investments in Transurban (+2.2% of the total portfolio return) and US-based companies Crown Castle International (+1.5%), Eversource Energy (+1.5%), American Tower (+1.4%) and Atmos Energy (+1.4%).

Transurban rose when investors turned to longer-duration assets as the Reserve Bank of Australia indicated it would cut the cash rate to help Australia's slowing economy. Crown Castle surged after the US cell-tower operator reported higher-than-expected earnings and boosted full-year guidance and after reports Dish, the US pay TV operator, was in talks to acquire some of the assets of Sprint and T-Mobile in order to establish itself as a fourth carrier in the event that the merger between Sprint and T-Mobile merger is approved. Eversource gained after the power utility announced operating revenue for the third quarter that beat estimates and management indicated that it would increase capital expenditure guidance for the full-year result. American Tower, which is judged another winner from the potential Dish entry to the market, jumped after the owner of wireless communications towers raised guidance for fiscal 2019 and reported higher-than-expected earnings and sales figures. Atmos Energy rallied as investors backed a gas utility that, due to increased investments to replace its ageing pipelines, is expected to enjoy high earnings growth for a utility for an extended period.

The stocks that detracted over the 12 months were Atlantia of Italy (-1.4%), Groupe ADP of France (-0.7%), United Utilities of the UK (-0.1%), Zurich Airport (-0.1%) and Severn Trent of the UK (-0.04%).

Atlantia declined following the collapse of a bridge in Genoa that was a tolled section of the A10 motorway operated under a concession contract by Autostrade per l'Italia, an 88% owned subsidiary of Atlantia of Italy and its largest asset. ADP fell after France's constitutional court suspended the further sale of the government's 50.6% stake in the operator of Paris's airports ahead of a possible referendum on any sale proposed by political parties opposing the sale. United Utilities and Severn Trent declined on concerns that the opposition Labour Party has promised to nationalise key utilities and only pay prices below their prevailing market capitalisations on the stock market. Zurich Airport fell after revealing steps announced by Switzerland's regulator to reduce the allowed return of its aeronautical revenue business by more than what was anticipated by the market.

Performance as at 30 June 2019[1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan Infrastructure Fund	16.5	10.6	12.4	14.4	15.5	9.1
Magellan Infrastructure Fund (Unhedged)	20.2	11.4	14.2	–	–	15.5

1 Calculations are based on exit price with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Magellan Infrastructure Fund inception 1 July 2007, Magellan Infrastructure Fund (Unhedged) inception date 1 July 2013. Returns denoted in AUD.

OUTLOOK

In our view, the likely time frame and trajectory of interest rate movements have shifted to a 'lower for longer' scenario where we see the balance of probabilities in the near term for rates to stay low or indeed be cut further before rising in the medium term. We have previously focused on the risks posed by a material increase in rates and we see a risk of inflation leading to an increase in interest rates. However, in the current outlook, the probability of this risk has reduced.

Irrespective of the macro-economic outlook, we expect the underlying earnings of infrastructure and utility companies in our conservative universe to remain reliable and predictable. Ultimately, the values of the companies in our portfolio reflect the future cash flows they are expected to generate, and the risks associated with those revenue flows. Even allowing for the resilient nature of the stocks held in the portfolio, if interest rates rise, we expect to see volatility in equity markets. We are confident, however, that any increase in interest rates will fail to hamper the financial performance of the stocks in the portfolio for the foreseeable future.

We believe that infrastructure assets, with their reliable earnings that are protected to a degree from inflation, are an attractive, long-term investment proposition. The predictable nature of their earnings compared with those offered by other asset classes means that infrastructure assets offer diversification benefits. In uncertain times, the reliable financial performance of infrastructure stocks makes them particularly attractive. An investment in listed infrastructure can be expected to reward patient investors.

PORTFOLIO POSITIONING

Top-10 holdings at 30 June 2019[2]

Security	Weight (%)
Transurban	6.2
Atmos Energy	5.8
Aena	5.3
Enbridge	5.0
Xcel Energy	4.8
Groupe ADP	4.7
Atlas Arteria	4.4
Sempra Energy	4.3
Eversource Energy	4.0
Crown Castle International	3.7
Total	**48.2**

2 Top-10 holdings of the Magellan Infrastructure Fund

At 30 June 2019, the portfolio consisted of 31 investments compared with 29 investments a year earlier. The 10 biggest investments represented 48% of the portfolio at 30 June 2019.

The portfolio held 5.5% in cash on 30 June 2019, down about 3% from 12 months prior. We had previously held an elevated cash holding to reflect a view that the accommodative monetary policy of recent years had boosted global asset prices and that the unwinding of this policy could lead to a repricing of assets. However, as central banks around the world have indicated a willingness to ease monetary policy again, and as there are increasing headwinds to global growth, we are less concerned about rising interest rates than we were.

The key changes to the portfolio over the year were a 12% increase in the allocation to utility segments as share prices fell from what we felt were elevated levels, funded by a reduction in the level of cash and a reduction in the allocations to the communications infrastructure and toll roads segments. Within utilities, we have increased the allocation to integrated power and gas utilities while we have reduced exposure to the water utility segment.

The reduction in the allocation to the water segment reflects our concerns over sovereign risk in the UK; specifically, the policy of the opposition Labour Party to nationalise these utilities at significantly less than market value.

In the toll road segment, the largest change was the removal of Italian toll road company Atlantia from the portfolio. Following the collapse of the Morandi Bridge in August 2018, the government commenced a process that could lead to it revoking the single concession that governs all of Autostrade per l'Italia's toll road network in Italy. Our consultation with different legal experts indicated that if the government proceeded with revoking the toll road concession, it would be required to provide compensation to Autostrade per l'Italia based on market value (albeit the timing and value of the compensation would be inherently uncertain). However, if Autostrade per l'Italia were to be found to have been grossly negligent or even criminal, then the discussion on compensation would change and the company's claim on compensation could be effectively zero. Given these risks, we assessed that the range of likely outcomes was too wide to be consistent with one of our key investment objectives —capital preservation.

In terms of geographic allocation, while we have increased the share of the portfolio invested in North America over the course of the year, we remain underweight relative to our universe as the bulk of the available opportunities in North America are regulated utilities, many of which are less attractive than other opportunities. We also remain underweight the UK given the issues with UK utilities described above.

Gerald Stack

MAGELLAN INFRASTRUCTURE FUND (CURRENCY HEDGED) (MICH)

Gerald Stack, Head of Investments and Head of Infrastructure

The Magellan Infrastructure Fund (Currency Hedged)(Managed Fund) is an ASX-listed fund (ASX:MICH) that seeks to provide efficient access to the stable returns offered by infrastructure and utility stocks, while protecting capital in adverse markets. Infrastructure and utility stocks that will help achieve these aims generally have strong underlying financial performance over the medium to long term, which is expected to translate into reliable, inflation-linked returns. The Fund typically holds between 20 and 40 stocks.

PERFORMANCE

Global stocks rose in the 12 months to June 2019 after companies posted higher-than-expected earnings, the US economy expanded briskly without generating inflation, the Federal Reserve indicated it would stop, and possibly reverse, its gradual tightening of US monetary policy, and the European Central Bank said it would "use all the instruments that are in the toolbox" to help the eurozone's weak economy. Gains were capped by concerns global growth might slow, driven by China-US tensions and rising political uncertainty in Europe.

The portfolio recorded a return after fees of 16.6% for the 12 months. The stocks that contributed over the 12 months included the investments in Transurban (+2.2% of the total portfolio return) and the US-based companies Crown Castle International (+1.5%), Eversource Energy (+1.5%), American Tower (+1.4%) and Atmos Energy (+1.4%).

Transurban rose when investors turned to longer-duration assets as the Reserve Bank of Australia indicated it would cut the cash rate to help Australia's slowing economy. Crown Castle surged after the US cell-tower operator reported higher-than-expected earnings and boosted full-year guidance and after reports Dish, the US pay TV operator, was in talks to acquire some of the assets of Sprint and T-Mobile in order to establish itself as a fourth carrier in the event that the merger between Sprint and T-Mobile merger is approved. Eversource gained after the power utility announced operating revenue for the third quarter that beat estimates and management indicated that it would increase capital expenditure guidance for the full-year result. American Tower, which is judged another winner from the potential Dish entry to the market, jumped after the owner of wireless communications towers raised guidance for fiscal 2019 and reported higher-than-expected earnings and sales figures. Atmos Energy rallied as investors backed a gas utility that, due to increased investments to replace its ageing pipelines, is expected to enjoy high earnings growth for a utility for an extended period.

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Atlantia declined following the collapse of a bridge in Genoa that was a tolled section of the A10 motorway operated under a concession contract by Autostrade per l'Italia, an 88% owned subsidiary of Atlantia of Italy and its largest asset. ADP fell after France's constitutional court suspended the further sale of the government's 50.6% stake in the operator of Paris's airports ahead of a possible referendum on any sale proposed by political parties opposing the sale. United Utilities and Severn Trent declined on concerns that the opposition Labour Party has promised to nationalise key utilities and only pay prices below their prevailing market capitalisations on the stock market. Zurich Airport fell after revealing steps announced by Switzerland's regulator to reduce the allowed return of its aeronautical revenue business by more than what was anticipated by the market.

Performance as at 30 June 2019[1]

	1 Year (%)	3 Years (% p.a.)	5 Years (% p.a.)	7 Years (% p.a.)	10 Years (% p.a.)	Since inception (% p.a.)
Magellan Infrastructure Fund (Currency Hedged) (MICH)	16.6	–	–	–	–	10.9

1 Calculations are based on the monthly ASX released net asset value with distributions reinvested, after ongoing fees and expenses but excluding individual tax, member fees and entry fees (if applicable). Fund inception date 19 July 2016. Returns denoted in AUD.

OUTLOOK

In our view, the likely time frame and trajectory of interest rate movements have shifted to a 'lower for longer' scenario where we see the balance of probabilities in the near term for rates to stay low or indeed be cut further before rising in the medium term. We have previously focused on the risks posed by a material increase in rates and we see a risk of inflation leading to an increase in interest rates. However, in the current outlook, the probability of this risk has reduced.

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PORTFOLIO POSITIONING

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Total	**48.3**

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The portfolio held 5.2% in cash on 30 June 2019, down about 3% from 12 months prior. We had previously held an elevated cash holding to reflect a view that the accommodative monetary policy of recent years had boosted global asset prices and that the unwinding of this policy could lead to a repricing of assets. However, as central banks around the world have indicated a willingness to ease monetary policy again, and as there are increasing headwinds to global growth, we are less concerned about rising interest rates than we were.

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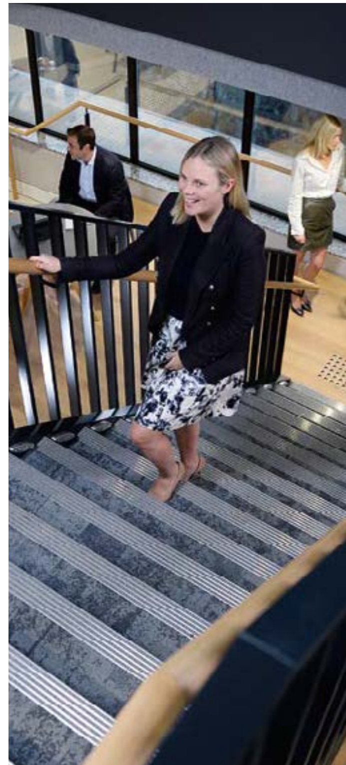
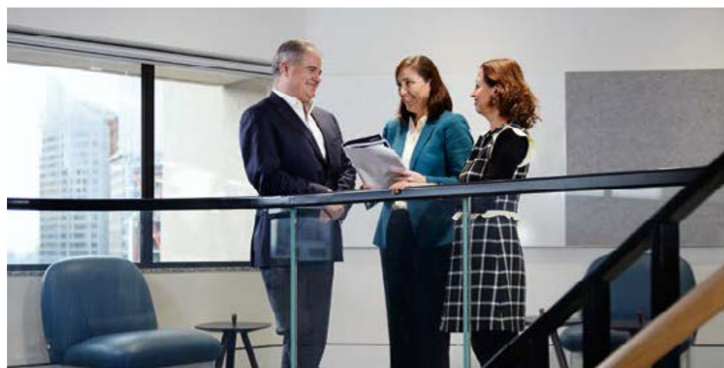
Gerald Stack





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Go to **2019.magellaninreview.com.au** to read the Group's online annual review for 2019, including a Q&A video with Hamish Douglass and Brett Cairns about Magellan's investment strategies.

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