Firstlinks
a Morningstar company

Edition 474, 9 September 2022

Contents

Editorial

While all the media attention focusses on the disquiet of borrowers facing rising interest rates, we overlook the investors who are enjoying a higher income flow on bonds and deposits. It is clear that a saver who earns 1% when inflation is 6% is going backwards by 5% in real terms. As interest rates rise, the same saver who now earns 4% will feel like their income has received a boost as it is covering more of the inflation impact. The pendulum seems to be swinging back to savers as interest rates rise.

But are the borrowers or savers winning from rising inflation and its impact on rates? It's commonly argued that governments can *'inflate away the debt'* because they repay their maturing bonds with money that is worth less in future than when they borrowed it. In effect, the debt requires a smaller amount of the government's revenue as inflation eats away at the value of the borrowing.

So far so good. But does the same apply for households?

Last week, a friend asked whether, as a borrower with a large mortgage, he should be happy to see high inflation. That is, does inflation *'inflate away his debt'*? In theory, if wages increase in line with the CPI, he still owes the same amount of money but he earns more. My first instinct was to follow the traditional reasoning that high inflation benefits borrowers.

But here's the catch. He said that rising inflation is leading to higher interest rates on his mortgage, but his salary is not increasing to match CPI. So how can his debt be *'inflated away'* when it is costing him more and he does not earn the salary to match it. In what sense is his debt becoming less? How can someone with a large debt be pleased by high inflation when all he sees is mortgage pain?

Good question. How have governments '*inflated away their debt*' in the past but the same logic does not apply now for households? I put this question to **Shane Oliver of AMP** as my head was starting to spin. He replied:

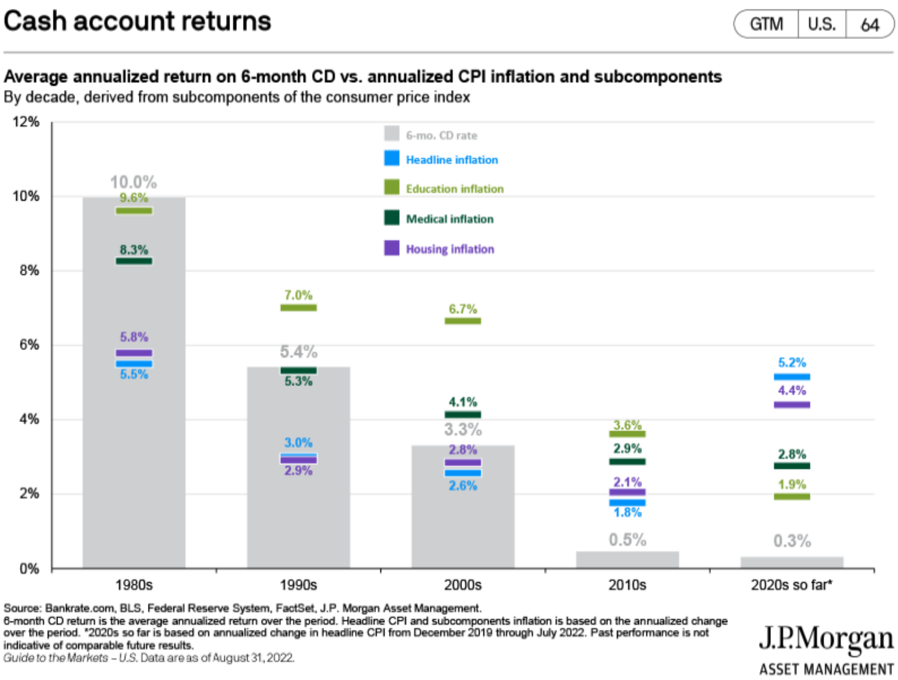
"Governments did inflate their way out of high debts left over from the end of World War 2 because post-war inflation combined with strong economic growth helped reduce the value of their debts relative to GDP. But that was a period of low bond yields. If bond yields had risen more in line with inflation, then governments would have found it a lot tougher.

It's harder for individuals. High inflation can help reduce a person's mortgage debt burden if interest rates stay low and wages growth is strong. This happened in the early part of the inflation surge in the first half of the 1970s when wages growth was well above inflation (in 1974 inflation rose to nearly 18% but wages growth was 25% or so) and interest rates were slow to move up with inflation. And back then, mortgage debt was relatively low (compared to people's wages anyway). My parents benefitted in that period.

But right now we have the worst possible combination of high mortgage debt levels, rapidly rising interest rates and wages growth running well below the rate of inflation. Wages are nowhere near making up for the rise in interest payments on mortgages. So while the real value of the debt may be falling in the sense that consumer prices are rising faster than the value of the debt, it's not helping people with a mortgage due to slow wages growth.

So I don't think the old concept of 'inflating the debt away' applies now to those with a mortgage."

What about savers in the current inflationary environment, and what is the comparison with the past? A recent chart produced for the US by **JP Morgan** is a guide, as reproduced here. In the 1980s, high inflation pushed the Fed to increase rates rapidly, and the chart shows savers earned higher interest rates (the grey bars) than the level of inflation. In the 1990s and even 2000s, deposit rates generally kept up with inflation.



But gradually, as bond rates fell after the GFC, the inflation rate exceeded bond yields. That was the position in both the US and Australia in the 2010s and into 2020 as Covid hit. Bond and bank deposit yields fell to close to zero. Real savings yields were negative as inflation exceeded savings rates.

Over the last four decades, therefore, we have experienced high inflation with high rates, low rates with low inflation, and now we have low but rising rates with high inflation.

So which is best for households? For savers, it feels better to earn higher rates even if inflation is high. Retirees complained about 1% rates when inflation was 2% and probably prefer 4% rates when inflation is 6%. And borrowers are unhappy with rates at 4% when inflation is high rather than 2% when inflation is low, because wages are not growing to *'inflate their debt away'*.

In the current inflationary conditions, it is the savers who feel better off than the mortgage holders.

On Tuesday this week, the Reserve Bank signalled more pain for borrowers:

"The Board expects to increase interest rates further over the months ahead, but it is not on a pre-set path ... The Board is committed to doing what is necessary to ensure that inflation in Australia returns to target over time."

At 1pm this afternoon (Thursday), the Governor of the **Reserve Bank, Philip Lowe**, will give an address to the **Anika Foundation** on *Inflation and the Monetary Policy Framework*. Every time he speaks, the media dissects each word for a hint on future policy. The fact that such depth of analysis has been misleading in the past does not reduce the enthusiasm.

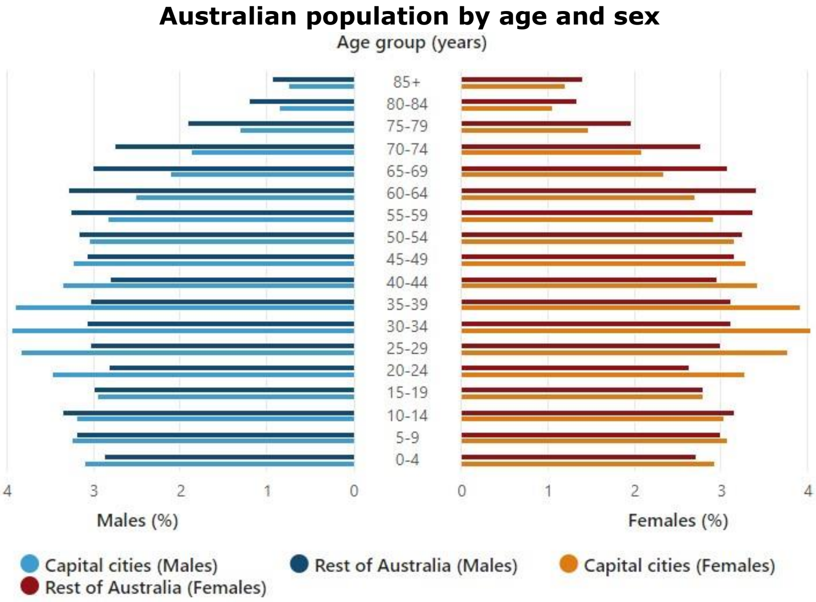
We have now experienced five consecutive months of rate increases: four of 0.5% and one of 0.25%. Each time, the news programmes trot out the usual stories of young couples with large mortgages who will need to buy frozen vegetables instead of fresh. They could run the same stories from months ago.

Who are the lenders and the borrowers, the winners and the losers? According to the ABS, the median age in Australia is 38.4 years, and:

- People aged 20 to 44 years made up 37% of the combined capital city population, compared with 30% of the population in the rest of Australia.

- People aged 55 years and over made up a smaller proportion of the population in capital cities (26%) than in the rest of Australia (34%).

Almost 80% of SMSF members are over 50 and their balances are far higher than for those under 50. About 75% of retirees own their home, and the desire of younger Australians to enjoy the Great Australian Dream shows little sign of abating. It's safe to generalise that younger people are the borrowers (or aspiring borrowers) and older people are the savers. Higher interest rates affect people differently depending on their resources, life stage and age, and we know from the Intergenerational Report that this chart will grow increasingly fat at the top (for example, 5% of Australians are expected to be over 85 by 2050).



The youngest members of the so-called Silent Generation (although many are far from silent) are 77, and with post-war frugality and home ownership, most are in the 80-100 years bracket where health, volunteering and estate management gain higher priority. Baby Boomers are currently aged between 58 and 76 and retiring in their thousands every week, and some are expecting to live another 30 years and prefer to live off income rather than capital. Home loans are either small or paid off.

We often overlook that the oldest of the Millennials - those young upstarts - are in their 40s, but many have large mortgages. This is the generation facing the major impact of rate rises on loans. They are the couples aged 26 to 41 that we see on the news when rates rise. And some of the freedom-loving, resourceful and independent Gen Xers can now retire, but many have mortgages, so there is a mix of fortunes in there.

	Born	Ages
Gen Z	1997-2012	10-25
Millennials (Gen Y)	1981-1996	26-41
Gen X	1965-1980	42-57
Baby Boomers	1946-1964	58-76
Silent Generation	1927-1945	77-100

One argument for the Reserve Bank continuing to increase rates is that levels of consumer confidence and spending remain high, and unemployment is at historical lows. In fact, **Ross Gittins** from *The Sydney Morning Herald* believes a tipping point has been reached where long-term unemployed have returned to the workforce and Australia will have a permanently lower unemployment rate. He wrote:

"By getting 125,000 long-term unemployed back into the working world, it's lowered the floor under the unemployment rate by about 1 percentage point. So even if the economy turns down in coming months or years, the unemployment peak, however high, is likely to be about 1 percentage point lower than it otherwise would have been. It gets us closer to a level of full employment that makes more sense to an ordinary person who thinks full employment surely must mean unemployment close to zero."

Longer term, we need to challenge our assumptions of a return to low inflation in 2023 after a year of pain. Although the Reserve Bank still believes ...

"Inflation is expected to peak later this year and then decline back towards the 2–3% range. The expected moderation in inflation reflects the ongoing resolution of global supply-side problems, recent declines in some commodity prices and the impact of rising interest rates."

... there's another view, as **Bernard Keane** wrote in *Crikey* this week:

"Life is going to get a lot tougher for central bankers as climate change, worker shortages, pandemics, geopolitical instability and the growing use of sanctions create constant inflationary pressures on economies."

In this week's edition ...

Lisa Thompson and four of her colleagues from **Capital Group** draw on the lessons from a combined 171 years in the market, through bulls and bears, to highlight key takeaways on lessons learnt.

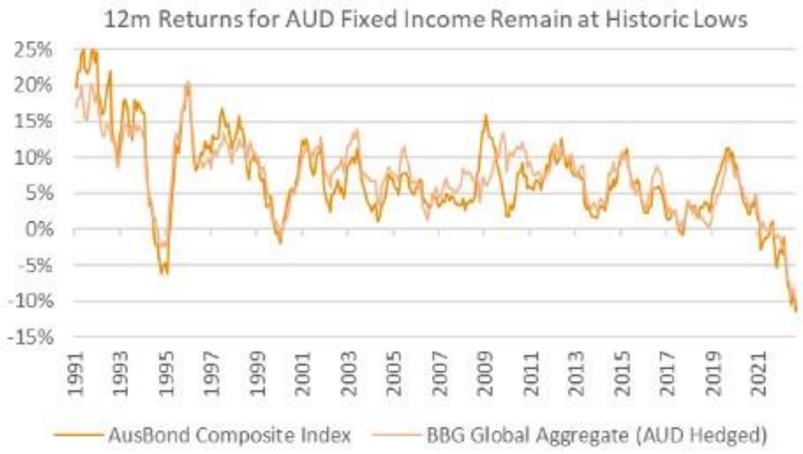
Our interview this week is with **Andrew Swan** from the **Man Group,** who is also a multi-decade investor now specialising in Asian equities. Most Australians are underweight Asian stocks but there are growing opportunities when developed economies are facing economic and demographic headwinds.

At the conclusion of the reporting season, it's more important to identify emerging themes than the short-term results from a few companies. **Daniel Moore and Michael O'Neill from Investors Mutual** identify three major trends all investors should know.

Steve Johnson of Forager has always been known as a value manager, looking for unloved stocks trading at an estimate of a discount to fair value. So now that one-third of his portfolio is in growth, has he changed his style?

Charlie Jamieson invests in the top end of the bond market in government securities, where finally after years of low rates, some value has appeared. He checks the prospects using scenario analysis with variations around his base case.

It's certainly been a wild ride in bonds with the AusBond Composite index down another -2.5% in August, taking the drawdown above 12%. It's even worse for some global investors, with the hedged Bloomberg Global Aggregate Index down 11% since its peak on 4 January 2021, but the unhedged index has lost around 20%. For any investor thinking that the time to buy in a market is after a selloff, it's worth checking bonds.



Source: BondAdvisor

Regular readers will be familiar with **Peter Thornhill**'s views on dividends from industrial companies, so how does he react to the massive payouts from resource stocks? He checks the numbers.

And the CEO of the **Grattan Institute, Danielle Wood,** received much acclaim last week at the Jobs and Skills Summit for her opening keynote address and how she set the tone for the event. We publish one of the section highlights plus links to the entire talk as a good summary of the issues facing Australia.

Finally, as we head into spring and summer, spare a thought for the Europeans about to face a winter with soaring electricity and gas prices. It will become a massive social problem. *The Irish Times* quoted a cafe owner hit by an electricity bill up 250% in a year to €9,836.92 for 73 days. That is a lot of cappuccinos.

Geraldine Dolan, of Poppy Fields Cafe, Athlone, with an electricity bill for just under ten thousand euro for two months. Photograph: Dara Mac Dónaill / The Irish Times Photograph: Dara Mac Donaill / The Irish Times

Our White Paper this week is from **Neuberger Berman**, with a fascinating perspective on the development and rapid growth of private markets. Much in the news recently as Australian super funds increasingly rely on unlisted investments, it's also attracting far more retail interest.

For those who read Firstlinks and then don't return for another week, there are often fascinating comments on our articles. No exception are the 60 or so comments on *That Horse Has Bolted* and they're worth another look.

Braving bear markets: 5 lessons from seasoned investors

Lisa Thompson and colleagues

Stock markets around the world have entered bear territory and many investors are focused on the likelihood of recession and more pain ahead. Declines create opportunities for investors who remain calm. If they make good decisions in times of stress, they can potentially set up the next several years for strong returns. No one knows when the pessimism will end, but it will end.

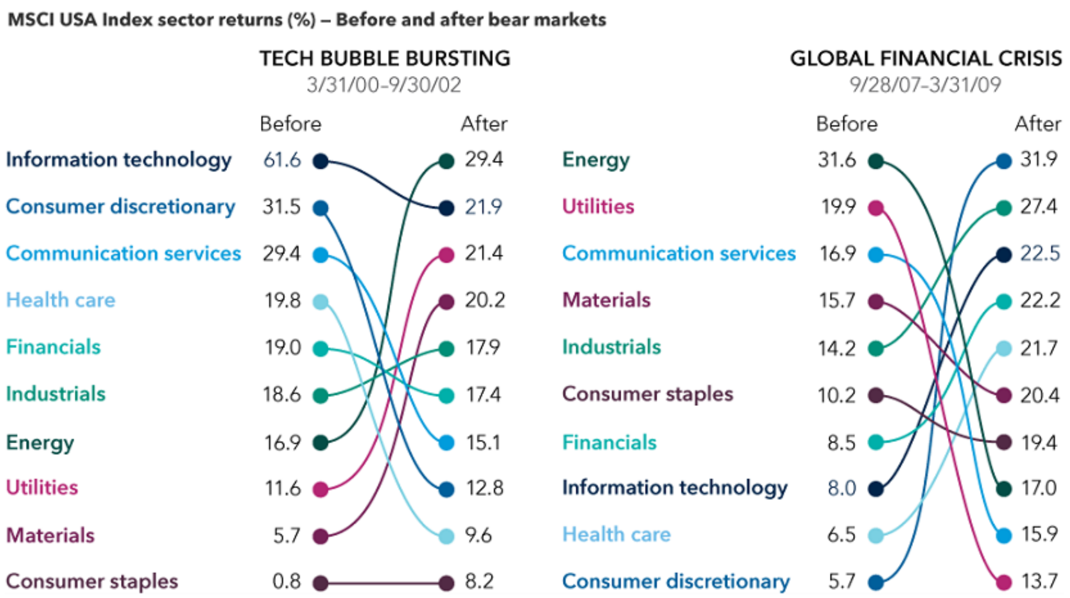
In unnerving times like these, it's helpful to hear from five investors, each of whom has been investing for more than three decades and 171 years collectively. They share key lessons learned from past bear markets and how they are applying the experience today.

1. Avoid the winners of the last cycle - Lisa Thompson

My experience has taught me that markets have long cycles. I believe the pandemic marked the end of the post-global financial crisis cycle — a cycle dominated by deleveraging, demand shocks and expanding globalisation. These conditions led to looser monetary and fiscal policy, low cost of capital and stock price inflation.

Today we are at the beginning of a new cycle, one that I expect will be marked by deglobalisation, a shrinking labour supply and decarbonisation, which are conditions that will lead to a shift from asset price inflation to goods inflation. Profit margins and highly valued stocks will face continued pressure. Because I expect generally higher inflation during this period, I want to steer clear of many of the fast-growing primarily U.S. companies that were the winners of previous cycle.

Market leadership often changes after a bear market



Sources: Capital Group, MSCI, Refinitiv Datastream. Returns shown are from the MSCI USA Index and are absolute total returns in U.S. dollars. For the tech bubble the dates represented are December 31, 1996, to March 31, 2000 (before bear market), and September 30, 2002, to December 30, 2005 (after bear market). For the global financial crisis the dates represented are December 31, 2003, to September 28, 2007 (before bear market), and March 31, 2009, to December 31, 2013 (after bear market).

When cycles shift, market leadership changes. So, in today's rising rate environment, I am focused on opportunities to invest in lower priced companies that generate strong cash flow. I think of this theme as the Revenge of the Nerds. I am generally staying away from the cool kids of the last decade — glitzy tech and media companies — and looking for opportunities among the unpopular kids in those industries hurt by the low cost of capital, poor capital allocation and adverse regulations.

Some examples here might include leading telecom companies in markets like Europe, Mexico and Japan. In fact, I am focusing largely on companies outside the U.S. In my view, many U.S. companies have benefited more from globalisation and the low cost of capital than similar companies in other markets.

2. Separate the wheat from the chaff - Don O'Neal

First, it's important to recognise that things have changed. What used to work for stock picking won't work in the same way, possibly for years. Holding the best companies with the best growth stories seemed to be a good approach over the past 10 years.

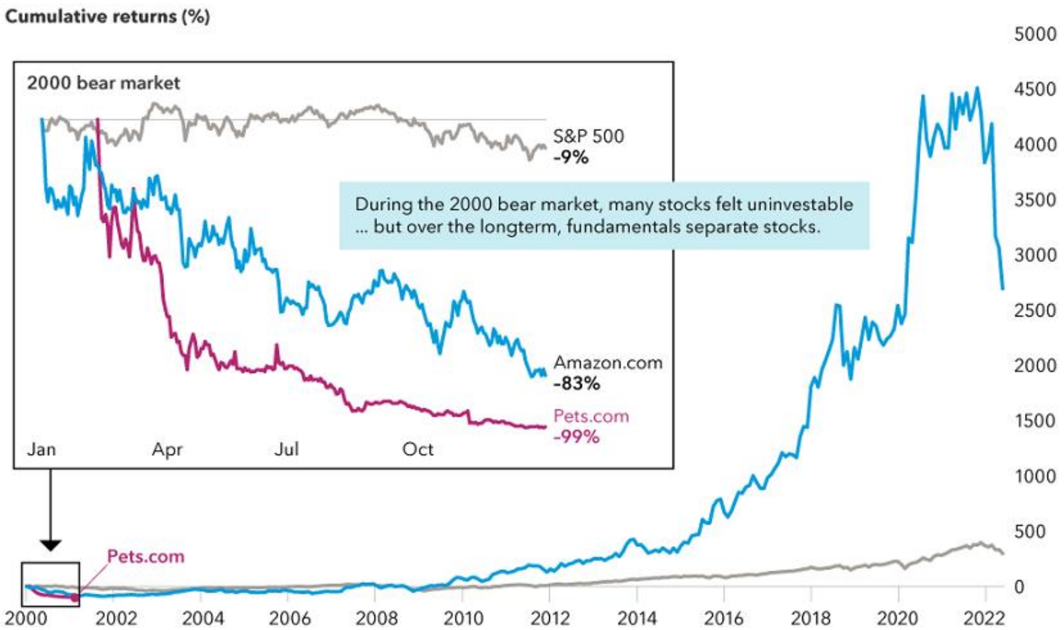
But I believe the last decade was too easy. Whenever retail investors get hyped up and day traders abound via trading apps such as Robinhood, that is a sign.

Going forward it will likely be harder to generate good returns, and the factors that drive returns most likely will change. For example, you can no longer buy and hold the fastest growers without regard to profits. I see this as a welcome return to fundamentals.

You may hear the current decline described as a correction of high multiple growth stocks. While this is generally true, it is incomplete. The stocks that have fallen the most all had fundamentals that disappointed versus expectations. Stocks with continued good fundamentals have held up better.

A lot of stocks have plummeted, but that doesn't mean they are all bad investments. Consider this example: In the 2000 bear market, both Amazon and Pets.com declined more than 80%. Pets.com went on to become a poster child for irrational exuberance as its stock went to zero. Meanwhile Amazon went on to become …. Amazon.

Bear markets can inflict pain indiscriminately



Source: FactSet. Full chart shows monthly returns from 1/31/00–6/30/22. Smaller chart shows daily returns from 1/3/00–12/31/00.

For me, it's time to get out a clean sheet of paper, focus on the fundamentals and concentrate your portfolio. Ruthlessly throw out the pretenders and hold only the highest conviction investments. Separate the wheat from the chaff.

This could be growth companies in the semiconductor, cloud services or search areas, for example. But it could also lead to more value-oriented companies like defense contractors, insurers or energy companies.

3. Trade the intangible for the tangible - Carl Kawaja

For the last 10 years the stock market placed a lot of value on companies that offer intangible things like software. But we've recently seen it demonstrate a greater embrace of companies that make tangible things. We all know and appreciate how rapidly electric vehicles are growing, but I think people may have underappreciated how much nickel and copper are needed to build their batteries.

That's why demand for some commodities, like nickel, is benefiting from secular tailwinds, and markets are starting to recognise this. Of course, to succeed in a commodity investment, you need to identify a company that has an enduring resource or a cost-effective means of finding and producing more of it.

Consider iron ore, a key ingredient in steel. One of the reasons it has been important since the Iron Age — that's a long time — is that we haven't really found another material that replaces it in terms of strength, cost, weight, flexibility and ability to be moulded and transported. This substance underpins so much of the world's progress. Skyscrapers are not made of brick or wood or some New Age material. They are built of steel. There's also a lot of steel in the computer I use. And most people probably drive to work in a car built with steel.

Iron ore can be found throughout the world, so in theory a lot of people could produce steel. But there really are only two places where it can be mined economically — Brazil and Australia — because it needs to be mined in pure quantities.

Brazil is home to a unique source of high-quality iron. When iron is mined it is often dropped directly into containers that are covered with blankets because it's so fine it can blow away in the wind, like baby powder. This makes Brazilian iron ore particularly good for blending with other grades because it lowers the cost of producing the ore in a blast furnace to make steel. It also increases the strength of the steel, so that high-quality iron ore generates a premium.

You can't invent that somewhere else. I'm not worried about Silicon Valley disrupting iron ore or some brilliant scientists in Switzerland discovering a different way to produce it. The market moves in cycles, so it will fall in and out of favor, but I feel reasonably confident that 50 years from now, production of iron ore will remain important.

4. Ride supertankers, limit moonshots - Jody Jonsson

One observation over my career is that when there are regime shifts in the market, the stocks that represent the former leadership can take a long time to recover. Rotation away from the dominant companies can go on much longer than you think it can or should.

In the late 1990s-early 2000s period, some of the largest tech stocks went down 80% or more and stayed down for five to 10 years. And these were the strong companies that survived; many others went to zero. You needed a very strong stomach to hold on through this period. It took almost a decade for tech to regain market leadership again. Financial stocks behaved similarly after the financial crisis in 2008 — out of favor for another decade. In periods like these, you must consider that something has changed beyond just the valuation for these former leaders. Usually, the valuation corrects first and the fundamentals follow.

I believe that we are experiencing 'climate change' in the market, not just a passing storm. We need to avoid anchoring on past growth rates, profit margins or stock prices. Given the high level of uncertainty, I focus primarily on 'supertankers', the dominant companies in their industries that generate solid cash flow, have strong competitive moats and can fund their own growth. I am investing more sparingly in what I would call 'moon shots' - the higher risk, higher reward companies that are more volatile - because in a rising interest rate environment, investors are less forgiving on valuations for more speculative companies.

Some examples include leading managed care providers or device makers in the health care sector, or nonbank financials such as insurers and exchanges that can benefit from rising interest rates and elevated trading volumes and are not overly sensitive to the economy.

5. Bear markets can be your friend - Steve Watson

Over my career I have experienced 21 market shocks, including the collapse of the Soviet Union, the bursting of the technology bubble, the global financial crisis and now COVID-19. Market disruptions are a fact of life. It's just a matter of time before the train goes off the rails. My list suggests it happens every 18 months or so.

As long as I've been in this business, I've seen the market swing from excessive enthusiasm to extreme pessimism. An investor with a reasonable degree of objectivity can benefit from selling the former and buying the latter. It's an approach that frequently causes pain and tends to pay off mostly during the early stages of market upturns, as pessimism gives way to optimism. Bear markets are an investor's friend, provided they remain calm, patient and focus on the long term.

I like to purchase shares when they are down and out, but I also like to hang on long enough to let the market catch up with what I think is the true value of the company in question. Despite my value bent, I remain a strong believer in the resilience of the tech sector. Entry point is important and I will look to select tech companies when their shares are beaten down.

Market disturbances are a fact of life for investors

Sources: MSCI, RIMES. As of 6/30/22. Data is indexed to 100 on 1/1/87, based on the MSCI World Index from 1/1/87–12/31/87, the MSCI ACWI with gross returns from 1/1/88–12/31/00, and the MSCI ACWI with net returns thereafter. Shown on a logarithmic scale.

I have long placed an emphasis on dividends as the primary way that a company transfers value to its investors. In my view, the potential for dividend payers to provide relative stability during market turbulence is more important than ever. And I continue to hold several high dividend payers, as well as dividend growers.

Bottom line, we've seen this before

Today, there are thoughtful, experienced economists and professional investors who can give you well-reasoned arguments why this bear market is different, why the economic problems are different and why this time things may get worse. But while some others might tell you, "This time is different," our message to you is, "we've seen this before."

Over time, and in time, the financial markets have demonstrated a remarkable ability to anticipate a better tomorrow even when today's news feels so bad. While no one can predict the future and no two market declines are the same, we have been here before.

Lisa Thompson, Don O'Neal, Carl Kawaja, Jody Jonsson, and Steve Watson are Equity Portfolio Managers at [Capital Group](), a sponsor of Firstlinks. This article is general information and does not consider the circumstances of any person. Investors should consider financial advice for their own position.

For more articles and papers from Capital Group, [click here]().

The right way to invest in a thematic is not an index

Graham Hand with Andrew Swan

Andrew Swan is Head of Asia (ex-Japan) for Man GLG, the discretionary investment business of Man Group, a global manager of $200 billion in assets with headquarters in London. Andrew is based in Australia and joined Man in 2020 after starting his analyst career in 1994.

GH: You manage portfolios of Asian equities excluding Japan. How much of the performance and potential is a China story?

AS: Asia is an ever-changing part of the world. A few years ago, China was the dominant source of returns in the region, but China is going through a challenging transition that is a tough environment for equities. At the same time, we are seeing improving opportunities in the rest of the region, especially in Southeast Asia and India. Asia is really diverse and some smaller economies are improving a lot.

GH: What are say, three other countries with good medium-term potential?

AS: Indonesia, Thailand, Philippines have good opportunities, and a fourth, India, should be in the mix. Young populations in a fast-growing part of the world. Of course, that doesn't always translate into good returns but the potential is strong at the moment.

GH: What about the global macro threats of inflation, interest rate rises and shortages in both labour and materials?

AS: Well, they are big challenges facing the rest of the world right now but one of the key reasons inflation is a problem in the West is the scarcity of labour. But these four countries offer young populations and an abundance of labour and they're not seeing wage inflation or interest rate pressure. These economies are more resilient to a global slowdown than in the past because they're more about domestic demand, and there's not the same level of speculation in the system as in the West. As a result, they're recovering strongly.

GH: Although Asian GDP grows faster than the rest of the world, you've written that Asian countries have arrived but Asian equities haven't. So now you're seeing a brighter outlook?

AS: The greatest mistake people make when investing in Asia is to think that because it's a high growth market, it should generate higher returns for its companies. But that has not proven to be the case over the last decade. There have been some fantastic opportunities inside the market but the overall market has underperformed developed markets which have been growing at a slower pace. Overall, in Asia, there has been too much capacity and companies lose pricing power and profitability suffers.

But at a time when developed markets are slowing due to inflation and rising rates, we expect the narrative of the underperformance of Asian equities to come to an end. And with enormous dispersion inside the market, the opportunity set as a stock picker, as an active investor, is much better in Asia than in developed markets where stocks are more highly correlated. It's really tough to get returns above the market in developed markets.

GH: Most people in Australia are underinvested in Asia, and probably think they can gain Asian exposure through global large caps. I'm not only thinking of the big tech companies, but Procter & Gamble, Coca-Cola, Lever & Kitchen, Starbucks, they all have large Asian businesses. What does an Asian portfolio give to an Australian investor?

AS: Asian companies are exposed to different factors than in an Australian portfolio, and while large global companies give some Asian exposure, and they tend to be well managed, Asia is usually a small part of what they do. The last 10 years have been a developed market story but the West is now paying the price for an incredibly accommodative monetary environment but Asia does not have the same excesses in the system.

GH: Are geopolitical tensions in places such as Taiwan and Pacific islands making conversations with Australian investors more difficult?

AS: I have been doing this in Asia for 20 years, and it's always a question from investors. Not to be dismissive of it in any way, but in the last four months, it's become more of a barrier. My response is in two parts. First, if a major military conflict happens, it will affect everything in your portfolio, Russia and Ukraine multiplied many times over with a big shock to the global supply chains. Mainland China and Taiwan are critical in global trade in all products from high tech like semiconductors through to low tech like base materials. So this shock to the supply chain would hit all markets.

But the second thing is, following events of the last year or two, companies are rethinking how they do business in the region. After a couple of decades of globalisation and integration, we're seeing an unwind. Rather than a first focus on the economics of a transaction, now geopolitics is probably equally first. Companies are adjusting their long-term thinking but they still want to be in places like China. It's a big, growing market. So they are reducing the number of logistical steps in their production and targeting more at the local Chinese market with local product. Multinationals in China are sourcing more locally than internationally due to the risk of further conflict.

And Chinese corporations are also trying to reduce their reliance on the West, and that's throwing up good opportunities. The investment challenge is to find the companies benefitting from more self-reliance and deglobalisation. We think a lot of companies will benefit from this process. Those local suppliers that are replacing imports and foreign competitors can do extremely well, and we've identified a few so far.

GH: On your portfolio, what are some of your largest investments by country and sector? And is it the big macro thematics you like or is it more company-specific?

AS: Well, it's the same mistake people make thinking Asia is a high-growth market and therefore the market overall should be high growth. It doesn't play out that way and the same goes for thematics. They can dominate returns in a short period of time but there must be a follow through into profitability rather than only top line or revenue growth or volume growth. With many companies, the first phase looks good but in the second phase, most of those things fail. The trick is to identify what is sustainable. We remain fundamentally focussed so profitability is key. We know the region and we follow profitability and avoid the companies that lose a lot of money if it doesn't translate into profits. We do have companies that benefit from thematics but we follow them through profitability.

Health care looks attractive, especially as populations are ageing and they demand better health systems. One of our core holdings is a medical equipment company in China. The quality of hospitals and health services in China is insufficient, but this company has gone from reengineering Western solutions and doing it cheaper and faster, to becoming much more innovative. It spends enormous amounts on research and development. While it started as a basic assembly company, buying components and putting them together with cheap labour, they now rely less on international components and they innovative with their own end products.

Innovation is critical to China's future, and the Chinese Government is the main customer and it wants more self-reliance and innovation, and the company is now selling internationally. For example, they now sell the number one patient-monitoring device in the UK. It's a company that can grow 20% to 30% per annum in a world where growth will become scarce. The key is not simply buying China health care due to the obvious need, because the Chinese Government squeezes suppliers of products such as common drugs or medical devices. The investing challenge is not the thematic but care in execution, as more companies fail than succeed.

GH: That's a good example of not just buying an index or a theme but finding the best companies. Have you got another example?

AS: Well, most people do not know what a harmonic reducer is. It's a lightweight mechanical gear that goes into a robotic arm. So here are two thematics, if you like. One is China running out of workers as the overall population is declining, the working population is shrinking, yet it's still a manufacturing hub. The only way to deal with that problem is to automate the manufacturing processes. So we've seen an enormous growth in robots in China, and that will likely continue.

There are two sources of robots. There are international sources, which is what China started with, and then there are domestic-manufactured robots. And due to global tensions and deglobalisation, Chinese companies are sourcing more robot arms from Chinese companies. Back to harmonic reducers. A Japanese company previously held a 70% market share, then a company we own developed the same component at a 30% cheaper price. So Chinese robot makers have been shifting across, especially after the rise in tensions in the South China Sea. The last thing a car manufacturer who relies on a robotic arm wants is for one tiny component to suddenly stop arriving from Japan. Sitting in Australia, investors see China as a risk, but digging below the surface, you see what's really going on.

GH: Can we turn to the other side of your portfolio for an example of something that didn't work well and taught you something about your investment process.

AS: Yes, although I've been doing this for 20 years and delivering consistent returns from the same process, we learn from our mistakes and there have been several stages of evolution of my process. One of our strategies is to look for positive surprises in a company's fundamentals or profitability versus what the market expects, but it requires a forward-looking view on what is going to happen, so we don't get everything right. Six out of 10 is a good hit rate to deliver strong results for our clients.

We owned a company which was doing a lot of market research and testing of biologic drugs, their profits were being upgraded and they benefitted from COVID and the manufacturing of vaccines. Yet if you look at their share price, it peaked in the middle of last year. The share price disconnected from the earnings upgrades. When we see a breakdown in that relationship, we start to get worried. Sometimes it's just short term and you can buy that weakness. But sometimes, if it's persistent, you need to listen. And this was one of those times we thought was a short-term problem, but it persisted and we decided we didn't know what was going on. Rather than saying the share price is wrong, we exited the position. We needed to know what was driving the price.

The market can be incredibly clever. My suspicion is that the market started to worry about the longer-term earnings outlook for this company, whether the lack of COVID in the world or more importantly, the whole US/China picture and scrutiny from US regulators. That's my theory. The clouds are over the long term but we have not seen the earnings downgrades yet.

GH: So what's your elevator pitch for an Australian to invest in Asia?

AS: The key is to understand why you're buying Asia, for its growth and dynamism, and find a manager who knows what drives returns in Asia. I've only been back in Australia for about 18 months and some of the commentary about Asia is, shall we say … strange. You need to accept the volatility because it is an emerging part of the world and it's constantly changing, but with that comes opportunity. Taking an objective and forward-looking view is how you generate consistent returns over the long term.

Graham Hand is Editor-At-Large for Firstlinks. Andrew Swan is Head of Asia (ex-Japan) Equity for [Man GLG](), an investment manager partner of GSFM Funds Management, a sponsor of Firstlinks. The information included in this article is provided for informational purposes only. Man GLG does not represent that this information is accurate and complete, and it should not be relied upon as such.

For more articles and papers from GSFM and partners, [click here]().

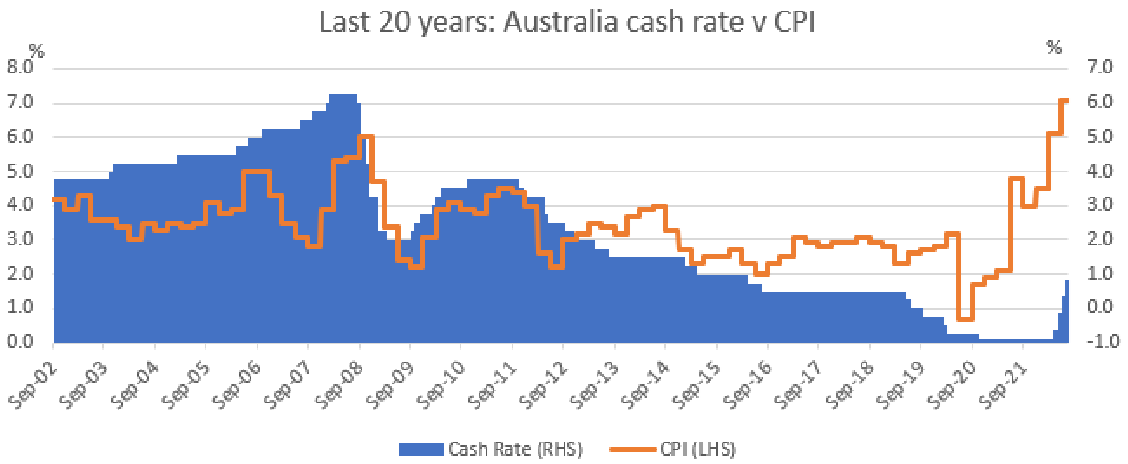
Three key themes that will drive markets this year

Daniel Moore, Michael O'Neill

Now that all companies in Australia have reported, it's the ideal time to step back and draw some conclusions. Like every year, there were winners and losers aplenty. In the flurry of announcements, it's easy to get caught up in jumping from one result to another and not take the time to work out *what is important*. For us the key themes that stood out from reporting season were: **inflation, consumer spending and cashflow**.

How companies manage inflation is the big differentiator

High inflation is a problem that companies haven't had to deal with for years, and many newer companies have never had to deal with. Take a look at this graph of Australian CPI inflation over the past 20 years.



Source: Factset, 15 August, 22

Prior to this year, inflation hasn't been above 5% since 2008 or above 3% since 2011. Over the past 10 years, companies that didn't have strategies in place to manage high inflation weren't punished for it. Not any longer. While the competitiveness of an industry or sector has a significant impact on how easy it is for companies to pass on inflationary costs, there were also many reporting season examples of companies that suffered from being less organised or disciplined in their inflation management.

For example, companies might have left pricing decisions in the hands of sales teams without setting proper controls, or not had any centralised oversight of how their supply chain costs were increasing. The building materials sector was a key offender here.

On the other hand, companies that were proactive and had strategies in place to deal with inflation - like dynamic pricing, CPI built into contracts, or a strong market position that gave them the ability to pass on cost increases (like Brambles, Amcor, and Aurizon) - reported better results in general.

Outlook for inflation

The feedback from our one-on-one meetings with companies is that inflation will continue to be high. Why? Nearly all companies have old contracts that are yet to be rolled to current market pricing across key cost lines. For example:

- The largest is employment contracts. Award wages in Australia have just risen in July by 5.1%, and 6.5% in New Zealand, and these increases will result in similar increases to enterprise bargaining agreements (EBAs) across the country when agreements come up for renewal. When these EBAs are renegotiated, this will 'lock-in' wage increases of 4-5% p.a. for the next three years.
- Electricity contracts typically last 1-3 years and when these roll over they will increase significantly, in many cases up 100%+.

While inflation seems to be coming off its peak, it looks like high inflation will be with us for some time. During reporting season, we saw big differences in margin outcomes due to how proactive businesses were in managing inflation and we think this will continue to be an important factor driving financial performance.

Consumer spending stayed strong, but for how long?

Reporting season showed that the large end of corporate Australia is in pretty good health. And, so far, we're not seeing consumers pulling back on their elevated spending habits post Covid. Retail sales rose 1.3% in July. We saw strong sales results from Myer, Breville and Super Retail Group. We're only seeing isolated examples of reduced spend, particular in online 'at home' categories, which we witnessed in Kogan's results.

Why? Two main reasons:

- Many people saved money during peak COVID with less travel and entertainment and low interest rates and so they can maintain spending for a certain amount of time.
- Rising interest rates aren't affecting people's spending much, yet. There is around a three-month lag between when banks raise their rates and when they start impacting mortgage-holders' household budgets. This is due to the way banks pass on interest rates with mandatory notification periods and the way they change the capital versus interest rate portion of repayments. Given interest rates were first lifted in May, higher rates have only just started to hurt.

We say 'so far' because undoubtedly consumer spending can't stay above trend forever. A global slowdown is coming, the question is to what degree. Europe looks like it will head into recession and the US and Australia may well follow. Even if Australia avoids recession, spending here will slow due to continued inflation of essentials and rising interest rates.

Cashflow suffered and will remain an issue for many

Many companies have had cashflow issues over the past six months and the main reason for this is their rising inventory balances (cost and volume), leaving them less cash to spend. This is partly due to the rising cost of goods, but also due to many companies deliberately increasing their overall inventory levels.

Businesses are holding larger-than-normal inventories because they have been worried about supply chain issues and inflation. They've been worried that they can't access things they need to keep their businesses running AND they're worried about the rising cost of everything. So they have been ordering more than normal to lock in lower costs and to make sure their businesses keep chugging along (as demonstrated in the results from Reece and Reliance Worldwide).

As well as excess inventory, if companies made poor inventory decisions, then it had big consequences on their profit margins. Companies that ordered too much either have to hang onto it, dump excess inventory, or reduce prices to get rid of it – Walmart and Target are well-known US examples of this. Supply chain issues seem to be easing in many areas, which will help alleviate this issue, but many companies still need to work through their higher inventory levels without impacting profits.

The three big ones

Inflation, consumer spending and cashflow were the big three issues that we saw impacting earnings reports last month. The companies that have been dealing best with these issues are well-established with strong market positions and capable management teams that are navigating their way through these volatile times. While sharemarket falls can be tricky, it's also a time of opportunity for investors. We're still seeing high-quality companies at reasonable valuations.

Michael O'Neill and Daniel Moore are Portfolio Managers at Australian equities fund manager Investors Mutual Limited. For more in-depth discussion on key takeaways from reporting season, tune into an upcoming webinar.

This information is general in nature and has been prepared without taking account of your objectives, financial situation or needs. The fact that shares in a particular company may have been mentioned should not be interpreted as a recommendation to buy, sell, or hold that stock. Past performance is not a reliable indicator of future performance.

If I get kicked out of the value investors' club, so be it

Steve Johnson

Plenty of people want to know if we still call ourselves value investors, or is there a style change in our funds? It's a question we received after our recent roadshow, when we disclosed that about one-third of our Forager Australian Shares Fund (ASX:FOR) is currently invested in tech stocks.

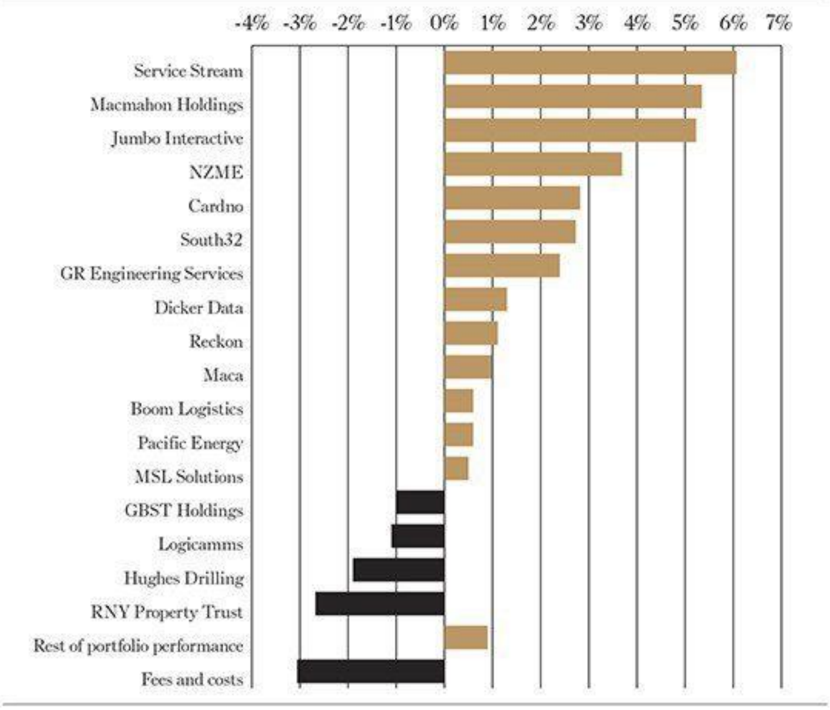
Value can include strong growth prospects

Value investing has always, to me, meant investing in shares of a company at a significant discount to the underlying value of the business. That has often incorporated businesses with strong growth prospects, as long as those growth prospects aren't reflected in the share price.

Wind back five years to our 2017 Performance Report, many of the best performers that year were growing businesses and tech companies.

Jumbo Interactive, GBST (since delisted) and Reckon were all tech stocks. Jumbo and GBST were barely profitable at the time we bought them. Dicker Data was a growth stock (albeit one trading on a low earnings multiple at acquisition).

Chart 4: FASF Contribution for the 12 months ending 30 June 2017



Jumbo Interactive

Dicker Data

Source: Morninstar.com

Most of our historically-successful investments were businesses that grew, even if they weren't priced to grow at the time of our first investment.

Most famous value investors are perfectly capable of valuing growing businesses. One of Warren Buffett's most successful investments, the Coca-Cola Company, was one of the 20th century's greatest growth stocks. Seth Klarman's publicly-disclosed holdings currently include Amazon and semi-conductor company Qorvo.

Hanging on to the value moniker

The challenge is that the understanding of what constitutes a value investor has changed with the rise and rise of index funds. By categorising the market as either 'value', for stocks with high dividend yields and low price-to-earnings ratios, or 'growth' for those with the opposite characteristics, index providers were able to offer factor funds.

But I'm not yet ready to give up the moniker. Value investors have appreciated growing companies since before the index fund existed, and the distinction between us and the rest is still important.

Quality and growth are not criteria for our portfolios, simply inputs into our valuations. We want to own quality when it is unloved or underappreciated, not quality for quality's sake. We currently have investments in Seven West Media, mining services and Qantas, and neither would meet a 'quality' filter. We simply invest on estimates of future cash returns to shareholders. That is equally true of RPMGlobal, where the earnings are going to grow.

More now, because the time is right

There are two good reasons we have 'drifted' towards a higher allocation to growing companies over the past few years.

First, look back at that 2017 list and you will also see Boom Logistics, Hughes Drilling and RNY Property Trust, a cluster of asset-heavy businesses that we invested in at substantial discounts to the 'value' of their tangible assets. These did not work out well and were subsequently joined by the likes of Thorn Group and iSelect, similarly 'cheap' stocks that never generated the profits we expected. Every business has a price. But the gap between the right price for a shrinking business and a growing one is a chasm. We learned that more than once.

Second, investors should expect us to 'drift' a lot. We have a particularly high weighting to tech stocks at the moment but they are all established businesses with predictable and growing revenue streams.

Investors didn't give a hoot about profits 18 months ago and tech stocks traded on revenue multiples. Today, the share prices have been absolutely hammered and all anyone cares about is profitability.

Change of accounting standards is an opportunity

Yes, some of them are currently reporting losses. But that is largely a function of significant investment in attracting new customers, rather than any reflection on the profitability of the existing customers. Twenty years ago, the accounting standards allowed companies to capitalise customer acquisition costs and spread the expense over the life of the expected revenue stream. That, predictably, led to a proliferation of aggressive and unrealistic assumptions and overstated profitability.

Today's accounting standards, where all of the customer acquisition costs get expensed upfront, leads to understatement of economic reality.

For the value investor, therein lies the opportunity. These businesses are no more difficult to value than most, and our estimates have not changed meaningfully over the past 18 months. Yet some share prices are 70% lower, taking them from premiums to our valuation estimates to significant discounts. We buy them when they are cheap.

If those share prices rise a lot, and everyone else becomes optimistic, you should expect us to be moving on to the next sector that is out of favour.

If that gets us kicked out of the value investors' club, then so be it.

Steve Johnson is CIO at Forager Funds, a Sydney-based boutique fund manager. This article provides general information to help you understand our investment approach. It does not consider your personal circumstances and may not be suitable for you.

Five possible market scenarios guide your asset allocation

Charlie Jamieson

Scenario analysis can prepare investors for uncertain times by providing the signals needed when considering a vast number of possible market outcomes after a given period of time. With the global outlook remaining clouded in uncertainty from geopolitics, energy shortages and sticky global inflation, the cards may fall in a number of sequential ways which will have vast implications for skittish asset markets looking to extrapolate those developments, powered by algorithms and momentum-based funds.

Outcomes lie in a few powerful hands

In our recent writings we have touched on the 'stages of grief' for investors - who have been forced to accept a world without multiple policy support, as governments and central bankers aim to kill the inflation monster that has fed from the pandemic.

We have also suggested that the US Federal Reserve (as the world's leading central bank) would not 'pivot' its policy easily or quickly as financial market participants return to work after a hot North American and European summer holiday. The global outlook remains highly volatile with several possible pathways for asset markets all having reasonable probabilities.

A few influential folk hold powerful cards to these outcomes (Putin, Xi, OPEC, Biden, Powell) and the sequence with which they may play those hands can have powerful effects against an economic and macro backdrop that will likely continue to slow from increasingly restrictive policy into year end.

Asset allocation based on scenario analysis

As such, we are thinking about asset allocation as a series of scenarios of differing likelihoods. 2022 is proving to be such a complex year that it is not impossible that the low probability 'tails' could happen concurrently, giving the scenario analysis table a third and very complex dimension. That is beyond the scope of this article for now, but let's consider the world in two dimensions over the five scenarios tabulated below - from our most probable and central case with possible outcomes (both good and bad for assets), and then the extremes, low probability events but high impact contingencies for markets.

Scenario Analysis on a 12-month outlook

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Likelihood	Possible but low probability	Possible	Central case	Possible	Possible but low probability
Macro triggers	• Extreme energy rise • PRC/Taiwan conflict • Fed Funds > 4%+	• High energy, high inflation • Fed Funds to 4.00% no cuts in 2023 • Hard recession '23	• Stable energy, sticky inflation • Fed Funds 3.75%, then small rate cuts • Hard recession '23	• Moderating inflation • H2/2023 Fed cuts • Soft landing/ recession	• Russia/Ukraine resolution: fall in energy • Soft landing • Powerful 'risk on'
Inflation Pulse	↑	↑	→	↓	↓
Fed Funds Pricing	↑	↑	→	↓	↓
Risk Assets	↓	↓	→ ↓	↑	↑
Credit Spreads	↑	↑	↑	→	↓
Govt Bond Returns	→ ↑	→	↑	↑	↑
Market Volatility	↑	↑	↑	→	↓

Source: Jamieson Coote Bonds

Middle scenario, the central case

Starting with the central scenario most expected by markets, this assumes energy will find a new valuation and trading range, which helps mitigate the inflationary effects as prices remain higher than previous periods, but do not continue increasing (inflation is a rate of change concept). Goods inflation moderates as supply chains continue to heal – this is already occurring across the global economy – however the services side of inflation remains sticky from an inflation perspective which frustrates the year-on-year inflation readings from moderating faster.

Things like 'rent' often have a mechanical legal contract component driven by previous higher headline inflation readings which become somewhat self-reinforcing, making it imperative that central bankers kill inflation quickly by destroying demand in the economy via higher interest rates.

This outcome is currently priced by markets, which expects inflation to moderate, the US Federal Reserve to continue hiking rates towards the 3.75% area before delivering mild support with some rate cuts in 2023.

We expect most assets to be range-bound in this scenario, with a drift towards more 'risk-off' pricing as the economic picture continues to weaken from previous policy adjustment that is yet to hit the economy due to its lagged effect (rate hikes usually take 6-12 months to appear in economic data). In this scenario, we assume most assets are already well priced, inflation stays well above mandate but does decline, the US Federal Reserve continues hiking but at a slower pace, equities, credit spreads and bond yields reflect higher risk premiums and volatility remains higher than historical settings.

Scenarios 2 and 4, the possibles

On either side of this central scenario are 'possible' outcomes, one that is better for asset prices and one not as supportive.

This hinges around energy pricing and its feedback into inflation outcomes and hence the amount of additional tightening required to moderate demand to bring the economy into balance. If we have additional exogenous shock events that drives energy prices higher (for example, Putin cuts off Russian gas in the European winter or OPEC heavily restricts oil flows) then the impact on inflation will force central banks to raise interest rates higher into restrictive territory, crushing asset values in the process and obliterating demand causing a violent recession.

If central banks stay the course as inflation fighters, it would be unpleasant for bonds as short-dated bonds continue to move to higher yields (lower prices). However, we would assume that long-dated yields become stubborn and bond total returns might hold up quite well relative to other asset classes, as a lot of this has already been priced for bond markets, helped by the current 3.60% yield to maturity across the index of Australian Government bond assets.

It would be terrible for credit spreads, as corporates already facing weaker demand will be forced to refinance outstanding debt obligations at far higher yields (cost) and in a market of weak confidence, not all lower rated corporates will be able to complete such a refinancing. We would expect heightened credit defaults, which in turn would drag on the equity complex. As we know, bonds would lead this process initially, but as we saw earlier this year, when other markets play catch up it can be quite violent.

Conversely, without an exogenous shock to energy, the mirror image could be expected. Lower energy prices as supply comes online, lowering demand from already active monetary tightening helping a faster moderation in inflation allowing central bankers to pause and do 'less' which would be supportive for all asset classes.

In this instance, we would expect Government Bonds to be the lowest returning, whilst corporate credit and equities would benefit from less restrictive policy settings and volatility might moderate under lower default assumptions than previously feared.

Scenarios 1 and 5, the extremes

At the extremes of our scenario analysis, we envisage low probability but highly impactful possibilities.

First, a resolution to the conflict between Russia and the Ukraine would generate a powerful bullish move for assets, in expectation of lower volatility, plentiful supply of energy, lower inflation etc. In this instance, full blown risk allocation would be the preferred outcome. Growth equities and crypto assets would be expected to slingshot higher. Credit would also enjoy this environment with expected spread tightening and bonds would also perform, although would be mild in comparison to other expected asset returns.

Second, on the other tail extreme, we assume a geopolitical flash point between the US and China in the Taiwanese Strait. This would likely deliver panic and a strong 'flight to quality' response from markets which is usually highly supportive of Government Bonds (particularly United States Treasury Bonds) and volatility. Sadly, all other asset classes would be expected to perform poorly if we had to endure the scary prospect or world war. We don't believe this is likely, but the probability is not zero.

Government Bond capacity to play anchor role

With much uncertainty ahead, diversified portfolio allocations seem to navigate a host of possible scenarios. With the restoration of yield in Government Bonds markets, they will continue to play an anchor role through these uncertainties ahead and an important role in four of our five scenarios.

Charlie Jamieson is Executive Director and Chief Investment Officer of Jamieson Coote Bonds (JCB). This article contains general information only and does not consider the circumstances of any investor.

JCB is an investment manager partner of Channel Capital, a sponsor of Firstlinks. For more articles and papers from Channel Capital and partners, click here.

The data doesn't lie: dividends on Resources versus Industrials

Peter Thornhill

(Editor's introduction: Peter Thornhill is well-known to our readers for advocating a multi-decade investment strategy based on the long-term merits of industrial companies for income. For example, to show his consistency over time, some of his previous articles in Firstlinks are here and here and here. In this short update, he again checks the long-term return from industrial shares, but this time, he makes the comparison with resource stocks. He argues that for investors with the right risk capacity and investment horizon, there's only one place to invest).

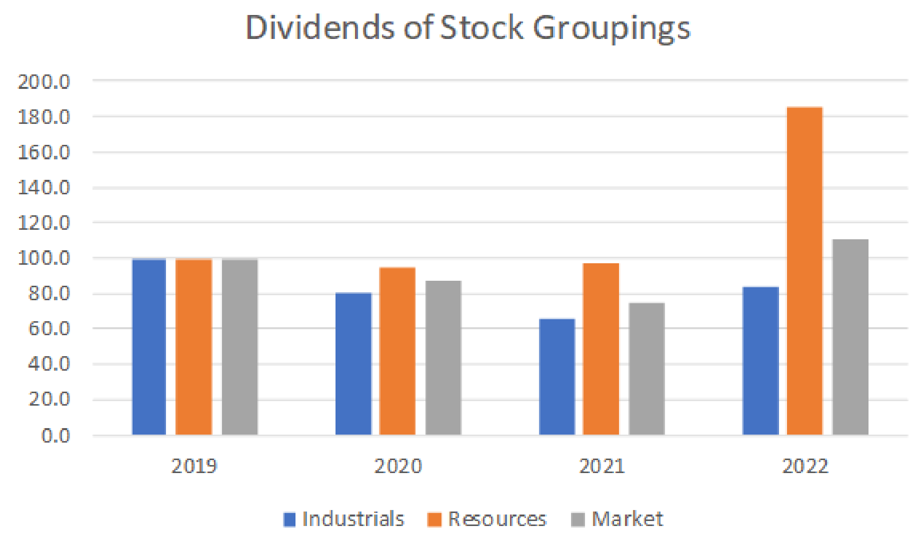
***

The current resource bubble and the flow of healthy dividends will no doubt have many investors salivating. Whilst my long-term charts are based on calendar year, this article looks at the last three financial years to bring my analysis up-to-date.

The table below takes 2019 as the starting point and looks at the dividend changes for financial years ending 30 June 2020, 2021 and 2022 for Industrials, Resources and the All Ordinaries.

Dividends	2019	2020	2021	2022
Industrials	100.0	80.7	65.3	83.6
Resources	100.0	95.0	97.7	184.9
Market	100.0	87.1	75.0	111.2

Dividend Growth	2019	2020	2021	2022
Industrials		(19.3%)	(19.1%)	28.0%
Resources		(5.0%)	2.8%	89.2%
Market		(12.9%)	(13.9%)	48.3%



Resource dividends come and go

Clearly, the impact of Covid effected industrial companies as dividends were suspended or reduced during this unsettling period, while the spectacular jump in resource dividends was driven by surging prices and demand for commodities.

Resource bubbles are a fact of life and jolly fun for speculators, but we must not lose sight of the longer-term impact. Index funds will have been selling industrials to buy resource stocks and when the bubble bursts, they will be selling resources to buy back the industrials. I wait to see the impact on distributions from these index funds post the change.

The charts below cover the last 41 years of performance for the price and accumulation indices. A picture is worth a thousand words!

Digging stuff out of the ground is all well and good but the real value add comes from the manufacturing, intellectual and technological inputs, not labour.

Peter Thornhill is a financial commentator, author, public speaker and Principal of [Motivated Money](). He runs full-day courses explaining his approach to investing "in the vain hope that not everyone is frozen with fear".

Peter extends his thanks to Angus Gluskie, CEO of Whitefield, for his assistance with the data.

This article is general in nature and does not constitute or convey specific or professional advice. Share markets can be volatile in the short term and investors holding a portfolio of shares will need to tolerate short-term losses and focus on a long-term horizon, and consider financial advice.

Jobs Summit keynote: the changing Australian economy

Danielle Wood

*This article extracts sections from the author's 2022 keynote address to the Jobs and Skills Summit, entitled '**Think big: a new mission statement for Australia**'.*

The address by Danielle Wood, CEO of the Grattan Institute, was widely praised. For example, speaking on ABC TV's Insiders programme, journalist Karen Middleton said:

"I thought Danielle Wood from the Grattan Institute, the speech she gave at the beginning, was excellent. It's the sort of speech you want to go back and read the text over again because it was a really good encapsulation of the problems we face and some possible solutions. I thought it was really excellent."

For detailed footnotes, to view the slides, or to read the full address, click here. Woods started her address by saying:

"I'm delighted to be invited to give this address and to set the scene for what I hope will be two days of robust conversation and forward policy momentum.

It is right that we open with a focus on full employment and productivity – somewhat abstract economic concepts yes – but ultimately ones that have a real impact on quality of life for each and every Australian."

We need to understand the lay of the economic land and how it is changing.

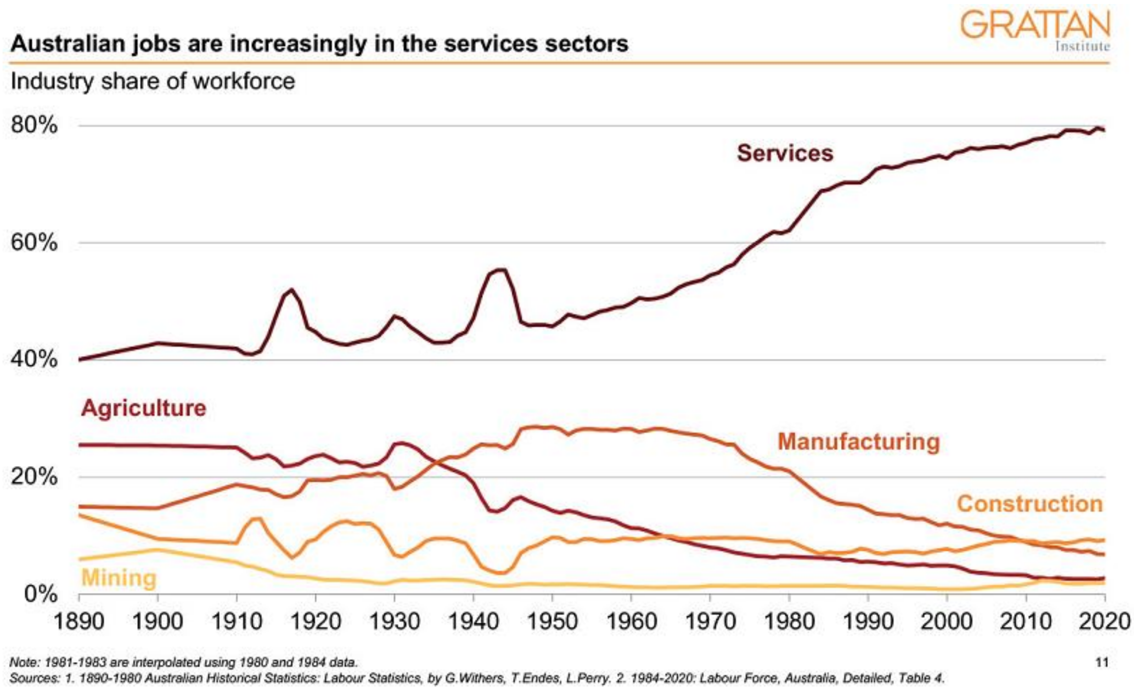
Too often conversations about economic policy happen in the rear-view mirror. They seek to preserve in aspic previous economic, social, and geographic structures.

This is often an expensive exercise in futility. We cannot push economic water uphill, but what we can do is make sure that we move with the flow and strive to provide good opportunities and jobs for Australians regardless of their location, sector, or personal characteristics.

And while I do not claim to have a crystal ball, I want to touch on three themes of change that will be important determinants of the shape of our economy and jobs in the decades to come.

Theme 1: The march of the services sector

Over the past 100 years the Australian economy has undergone major sectoral transformation: essentially from an economy that made goods – 'stuff you can drop on your foot' – to an economy of services.



At the time of Federation, 1 in 4 Australians was employed in agriculture. By 2020 it was just 1 in 36. Manufacturing began its long decline as an employer in the 1970s. But in both sectors, output continued to rise as technological developments meant we could produce more but with less.

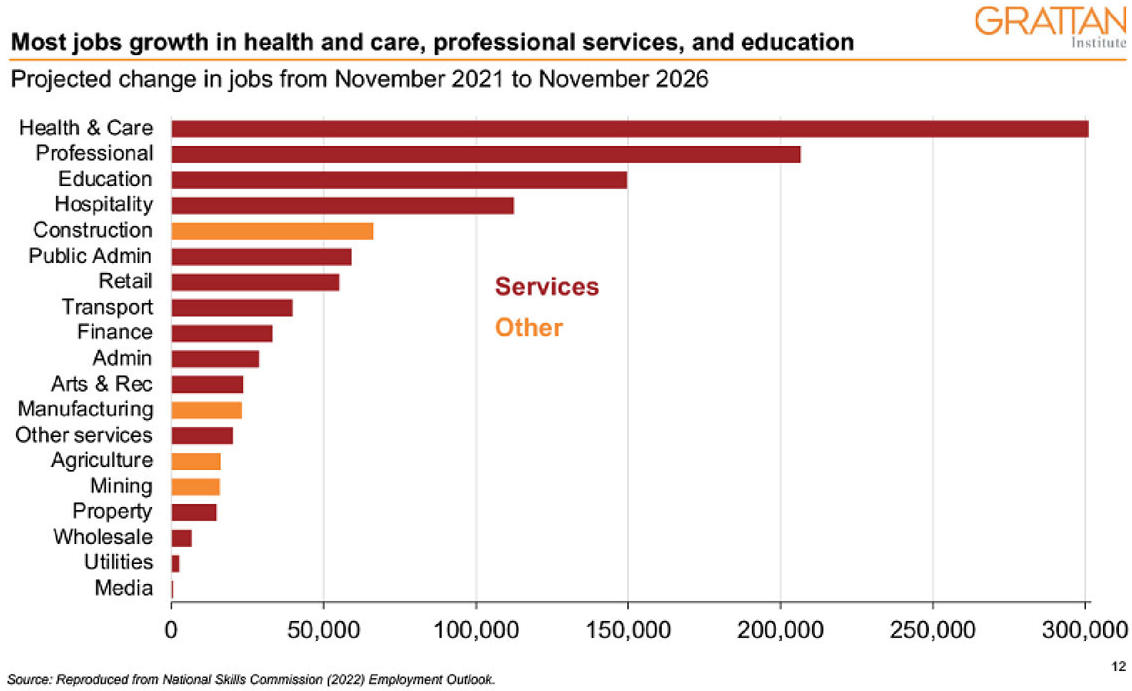
The flip side is the extraordinary growth in jobs in Australia's services sectors. Services now account for around 70 per cent of national economic output. And 8 out of 10 workers in Australia are employed in services jobs.

Services jobs are real jobs. They include our vital health and care workers, our teachers and university lecturers educating young Australians, our scientists and tech workers unleashing the next waves of innovation, and the cleaners, drivers, and administrators who provide the economic plumbing that keeps everything running smoothly.

Despite being an overwhelming majority, these jobs are too often overlooked in public discourse and policy making.

Government responses to economic crises – even services-lead downturns such as the COVID recession – still overwhelmingly emphasise support for the construction and manufacturing sectors. Similarly, government bail-outs, subsidies, and tax breaks for private businesses also weigh heavily toward these sectors.

The rise of services jobs is not something to fight against or bemoan as a country; it is a standard evolution of all countries as they get richer. And indeed, it is expected to continue.



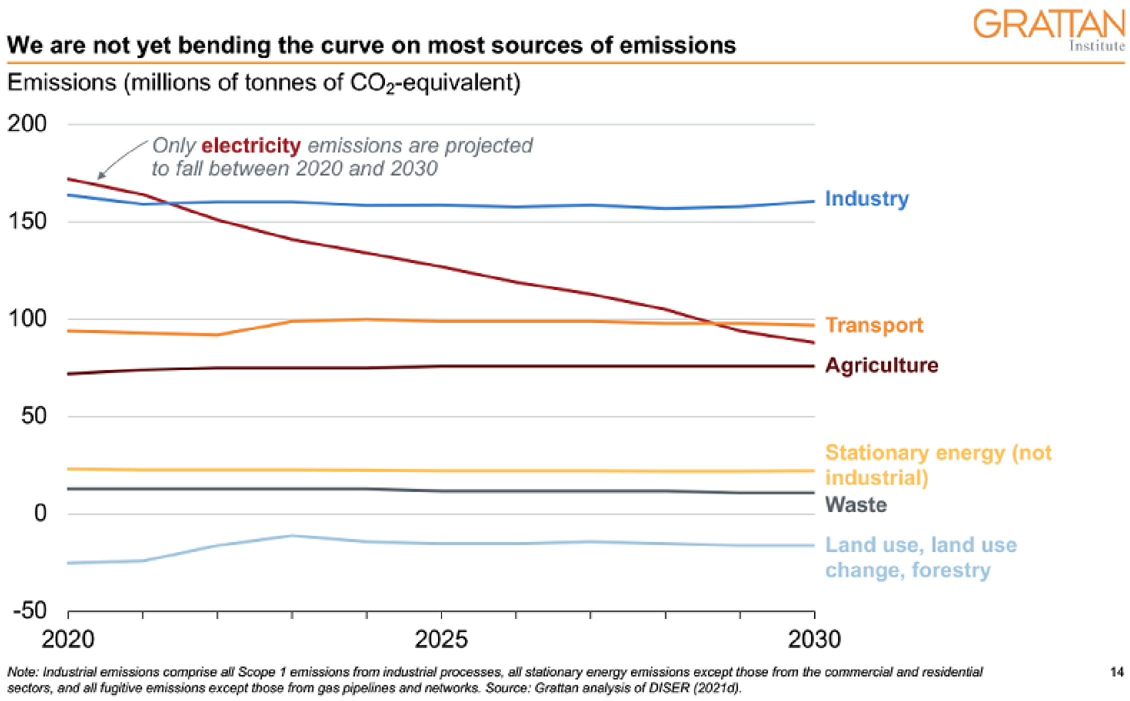
Jobs growth estimates from the National Skills Commission suggest health care, social assistance, professional services, and education will be the biggest growth areas over the next 5 years.

And I think it would be a very fair reading of history and demographics to expect that these trends will continue.

Theme 2: An industrial revolution with a deadline

Australia's economy faces transformative change to meet global and domestic emissions-reduction targets.

Any credible path to net zero means picking up the pace of decarbonisation in the energy sector and starting to bend the curve on emissions in industry, transport, and agriculture over this decade.



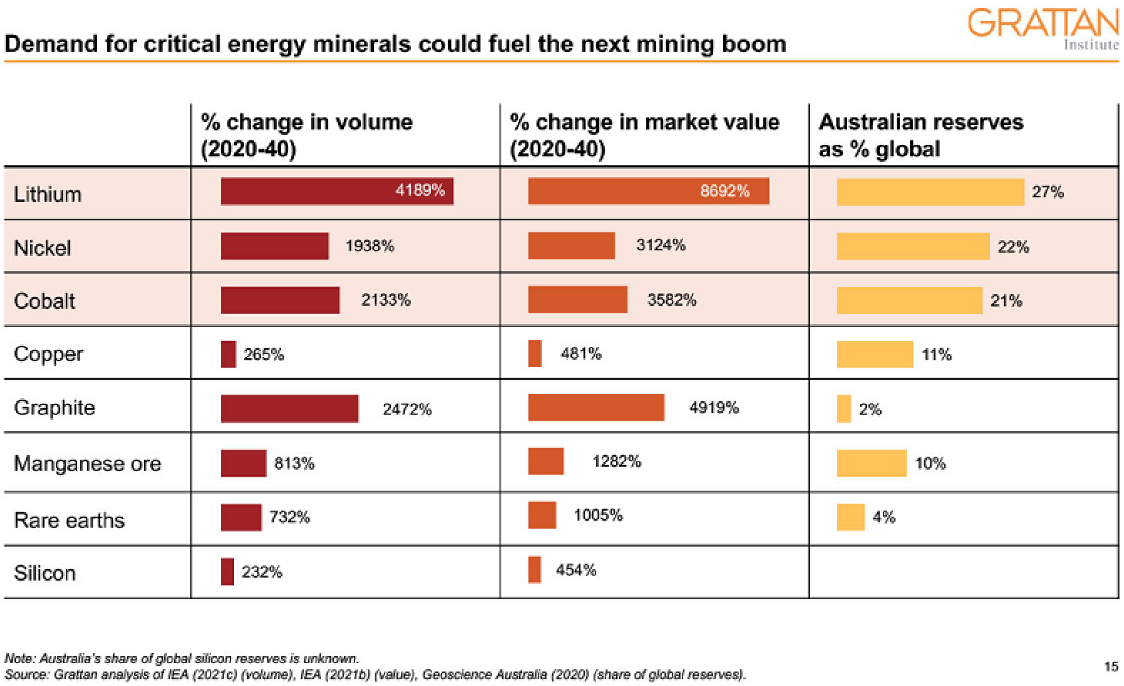
We are not yet on that path. Indeed, the latest forecasts suggest that we are yet to shift the dial beyond electricity emissions.

The scale and pace of change required have led my Grattan Institute colleagues to dub it an industrial revolution – on a deadline. But if the challenge is large, so is the opportunity.

Perhaps the clearest way to think about it is a revolution with three fronts.

First, and most difficult, is supporting people affected by the decline of activities such as coal mining that are incompatible with a net-zero economy. The challenge is marrying the phase-out in a way that provides genuine opportunities for workers in the regions such as the Hunter Valley, Mackay, and Collie.

Second, there are existing activities such as steel-making and aluminium production that should be able to transform through low-emission technologies and practices. The transformation of the electricity grid to support significant growth in renewables generation is a crucial part of this shift.



Third, there are the straight-up opportunities. New activities such as low-emissions extraction and processing of critical minerals are small today, but the potential demand is large, and Australia has significant comparative advantages, not to mention large shares of global reserves for important minerals such as lithium, nickel, and cobalt.

Crucially, if we deliver on the opportunities on the second and third fronts, these offer well-paid regional jobs in industries with a sustainable future.

Once again, Australia is the lucky country – we are extraordinarily blessed with abundant supplies of renewable energies and critical minerals. I hope we can today commit to being first-rate leaders who will make the most of this luck to build future prosperity.

Theme 3: The future is digital

The third and final structural trend I want to touch on is the rise of the digital economy.

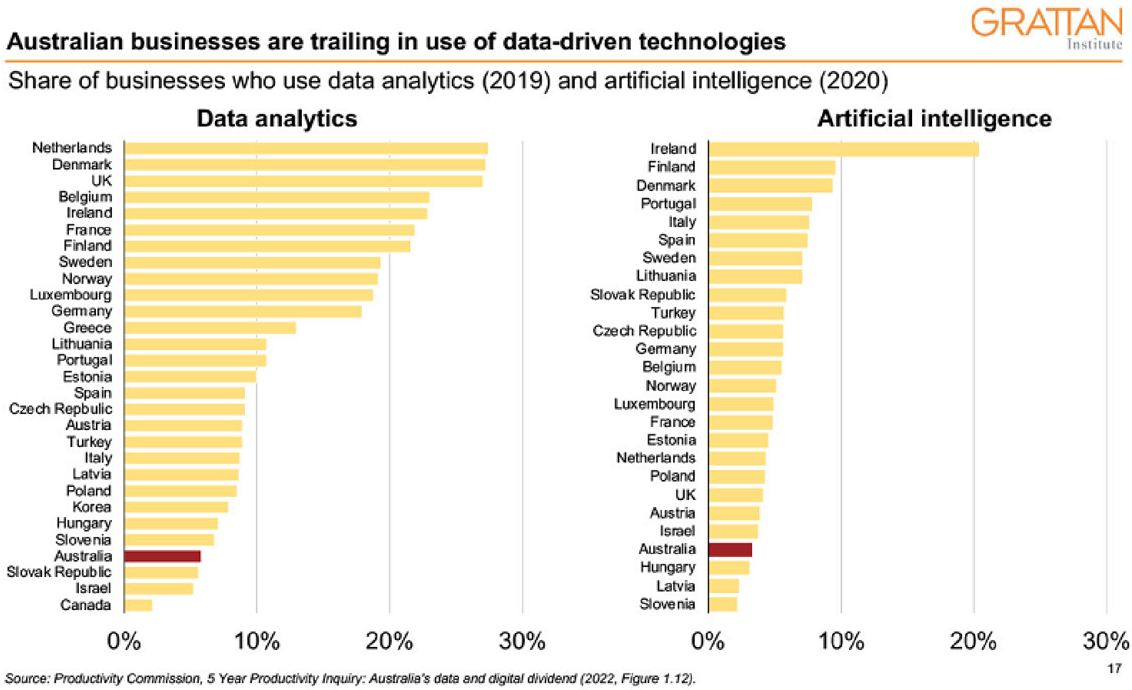
To date, digital transformation has perhaps loomed larger in our everyday lives than in economic performance, triggering macroeconomist Robert Solow's quip that 'we can see the computer age everywhere except in the productivity statistics'.

But there have always been lags between innovation and the economic dividends it can unleash. This is the so-called S curve effect – business simply takes a while to harness the productive capacity of new technologies.

Technologies like AI, data analytics, quantum computing, and robotics continue to develop in leaps and bounds. And bit by bit we are learning how to use them to deliver better and cheaper goods and services. This is why I find myself increasingly aligning with the techno-optimists about the transformative potential of these technologies.

One reason this is so significant is that these technologies have the potential to deliver significant improvements in productivity in services sectors, where it has historically been harder to shift the dial.

From touchscreen ordering in dumplings bars to AI algorithms to prioritise scarce emergency room resources, the use case for these technologies will continue to evolve.



Australia does well in terms of some of the foundations – we compare positively internationally on things like cloud connectivity. But we have much lower adoption of the tools such as data analytics and artificial intelligence that will be critical in driving process improvements.

The most common barriers to technology and data adoption identified by Australian businesses are inadequate internet, lack of skills, limited awareness, and uncertainty about benefits and costs of new technologies, particularly of changing over legacy systems.

Some of these require government investments such as broadband services, cybersecurity, and tech skills – but they also require Australian managers to have the know-how to recognise and respond to the opportunities ahead.

Danielle Wood is the CEO of [Grattan Institute](), where she heads a team of leading policy thinkers, researching and advocating policy to improve the lives of Australians.

For detailed footnotes, to view the slides, or to read the full address, click here.