A post pandemic outlook

Expert round table

March 2022

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Contents

Post pandemic outlook

Macquarie Wealth Management's Investment Strategy Team is proud to bring together insights from a selection of leading figures in the domestic and international investment community to celebrate International Women's Day.

The past two years have come at great personal and economic cost for many households, businesses, and governments. But out of adversity comes opportunity and our investment experts, all of whom have had to navigate extraordinary financial market conditions since the onset of the pandemic, are genuinely encouraged as they look towards a "post pandemic" world.

Our panel of experts believe several structural trends have been accelerated because of the pandemic (and more recently the conflict between Russia and the Ukraine) and that these trends will have profound implications on the way we live and work, on the way businesses operate and in driving government and regulatory policy for decades to come.

From hybrid working models, to health and wellness, to the equal treatment of all business stakeholders through to rising nationalism and the realisation that governments can no longer delay addressing environmental concerns. The past two years have seen a tectonic shift towards inclusiveness and in attitudes towards tackling social and environmental problems. There are costs to these changes, but these are far outweighed by the costs of doing nothing according to our panel of financial market experts.

For financial markets, while they have been given an adrenaline shot via unprecedented levels of cheap and plentiful money, there is a growing distinction between those that are embracing social and environmental change and those that are not, and this is being borne out by where capital is flowing and at what price. Over the following pages, we hear more on these topics from the following leading financial market experts:

- Libby Cantrill, **CFA** - Managing Director, Head of Public Policy, PIMCO
- Katie Hudson - Portfolio Manager and Head of Australian Equities Research, Yarra Capital Management
- Leah Kelly, **PhD** - Senior Investment Strategist, Macquarie Wealth Management
- Jun Bei Liu, **CFA** - Portfolio Manager, Tribeca Investment Partners
- Tracey Luke - Senior Director, Portfolio Management, Invesco
- Mary Manning, **PhD** - Portfolio Manager, Alphinity Investment Management
- Elizabeth O'Leary - Head of Agriculture & Natural Assets, Macquarie Asset Management (MAM)
- Alina Osorio - President, Fiera infrastructure
- Laura Ryan, **PhD** - Head of Research, Ardea
- Claire Smith - Alternatives Director, Schroders
- Rose Thomas, **CFA** - Vice President, J.P. Morgan Asset Management

We are fortunate to have such a diverse and talented group of financial market experts provide insights at such an important juncture for the global economy and financial markets. Macquarie Wealth Management is proud that this group came together to support International Women's Day and at the same time showcase their expertise.

We hope you enjoy reading the report.

Thank you

Jason Todd, CFA
Head of Wealth Management Investment Strategy,
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*The submissions from the contributors to this report were collected on the 16 February 2022

A post pandemic world

Nationalism, populism and deglobalisation

The pandemic came at great cost to human life but the ability of economies and financial markets to absorb and then look through ongoing uncertainty was a poignant reminder of the dynamism of human behaviours. It is difficult to focus on the positive outcomes of the pandemic when its negative effects continue to linger, but our panel of experts believe there are many developments which will help shape the path of household and corporate behaviour, government policy and investment trends in a constructive and more inclusive way as we move into a post pandemic world.

Our panel was united in their belief that the pandemic turbocharged four major structural shifts that were already underway, albeit at a more glacial pace. This included:

1. Increased adoption of health and wellness into the workplace (embracing of the hybrid working model became mainstream out of necessity);
2. A further shift toward deglobalisation and a more multipolar (fragmented) world as countries used the pandemic to look inwards. This trend has been re-enforced even further with the outbreak of conflict in Ukraine which is driving further separation between the Anglo-sphere, the Sino-sphere and the EU;
3. An acceleration in digitisation as mobility restrictions drove online activity from the purchase of goods and entertainment to exercising and share trading; and
4. Refocused efforts on the need to address environmental (predominantly climate) challenges as the pandemic drove a more altruistic and considerate view by consumers through to businesses and governments.

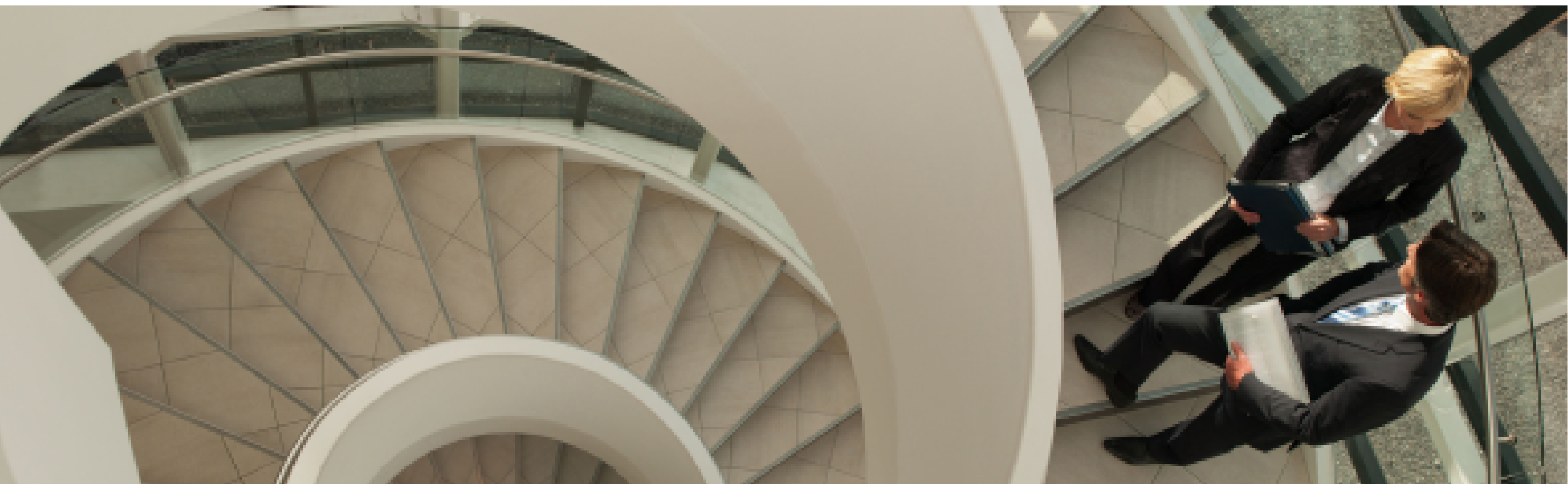
For many sectors, technological adoption and digitisation has simply been brought forward. Businesses redefined the workplace through introducing working from home / flexible working environments and with changing work practices impacting office use. **Jun Bei** notes that office spaces will likely never be the same again as they evolve into places for collaboration and/or open planning.

> "Office spaces will likely never be the same again as they evolve to places for collaboration..."
>
> **Jun Bei**

The pandemic transcended borders. **Mary** sees lessons for the world in forming a global response to climate change. COVID-19 has also significantly increased the discourse around the 'Social' aspects of ESG. Supply chain disruptions dominated headlines, investors are more aware of the structure and complexity of supply chains and therefore are more aware of the modern slavery and human rights risks. Worker health and safety is now paramount, with **Jun Bei** agreeing that corporates are now investing more in local manufacturing and employees are adopting 'just in case' rather than 'just in time' strategies. Within infrastructure, **Alina** also notes there is a heightened focus on, planning towards, and implementation of operational ESG initiatives.

> "...the pandemic has driven more bilateralism versus multilateralism, more inwardness and less cooperation globally"
>
> **Libby**

Geopolitically, **Libby** believes the pandemic has driven more bilateralism versus multilateralism, more inwardness and less cooperation globally (the vaccination figures in developing countries are an example) and, in the U.S., more focus on onshoring supply chains and diversifying away from reliance on China. In many ways, these dynamics have sped-up the shift of the unipolar world discussed above to a more multipolar, fragmented global landscape.



A post pandemic outlook

From an investment perspective, there were also several key takeaways that have the capacity to alter the landscape for years to come.

1. The increased focus on ESG has widened the gap between the “haves” and “have nots” with a structural shift in the willingness of businesses to finally add “S” aspects to “E” and “G” according to **Mary**. The growth of ESG related products off the back of investor “demand” has been extraordinary. In addition, **Tracey** notes that sector selection is more important than ever, with active asset management being essential to ensure properties maintain their competitiveness and mission-driven firms who incorporate ESG and other elements important to today’s talent pool will ultimately attract the best talent. In other words, managers need to evolve, or they may potentially face their own Darwinian fate.

2. The pandemic has increased the focus on non-traditional assets. **Claire** points out (excess) returns are now harder to come by, and that this has supported a trend of looking outside of traditional asset classes, which will (should) help diversify and thereby reduce risk within portfolios. **Rose** agrees that clients want robustness in their portfolios, which could reinforce the notion of allocating to alternatives. Additionally, having seen episodes where fixed income provides less of a performance cushion when we see equity markets suffer - this will continue to support demand for the use of (alternative) strategies.

> “Clients want robustness in their portfolios ... this reinforces the notion of increasing allocations to alternative assets”
>
> **Rose**

3. Within real assets **Alina** states that COVID-19 has had a positive impact on originating new investments and the transaction process, – for example, there is greater use of technology which drives efficiencies. There is a heightened focus on ESG and black swan events in our due diligence process which we anticipate will de-risk and improve performance of our long-term investments.

4. Finally, **Katie** notes that at some point governments will need to address the budget pressures and fiscal deficits created by the stimulus provided through the pandemic, although the appetite to do this against a backdrop of restrictive interest rate settings is likely to be low. This has the capacity to finally push up interest rates and/or cut cyclical demand in some areas that will ultimately add to pressures on lofty valuations and/or drive a more prolonged shift in the performance of “value”.

The pandemic has driven a number of changes...

Structural

- Greater focus on ESG
- Digitialisation
- Deglobalisation

Geopolitical

- Populism
- Nationalism
- Multipolar, fragmented global landscape

Investment

- Higher volatility drives the need for alternative sources of diversification
- Rise of private capital

Economic outlook: When in doubt... add more money

Our panel is optimistic on the global backdrop and expects the recovery to continue uninterrupted through 2022. While it is a consensus view that growth momentum will decelerate from the extraordinary levels seen in 2020-21, it should remain above trend – driven by strong consumption, elevated savings, pent-up (services) demand and continued easy financial conditions.

At this stage, we think the economic impacts of the war in Ukraine, the resulting sanctions and potential retaliation are likely to be small and largely confined to Russia and the EU. The biggest risk is that we see a prolonged conflict that drives a tit-for-tat response from Russia and the West as well as a more aggressive stance by Russia on its energy supplies for the West.

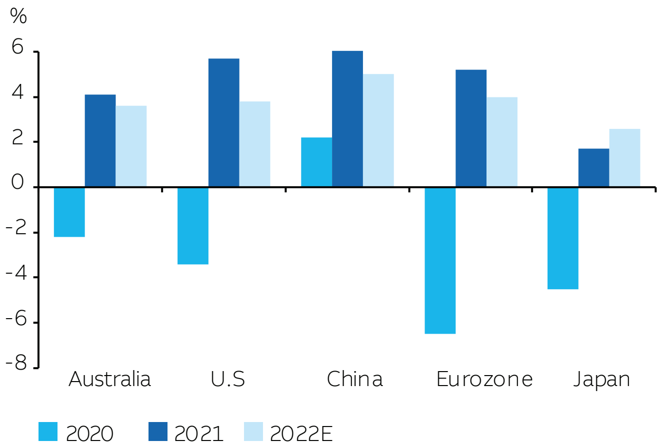
It is possible that a spike in commodity prices (particularly oil and gas) drives some upward pressure in global inflation and this could come at a time when uncertainty is elevated. This does have the potential to drive a more dovish stance by central banks (as they put in place some added downside insurance) but we think conditions would have to change meaningfully to prevent either the Fed or the ECB from beginning their rate hike cycles in the next few months.

There are a lot of unknowns surrounding how the conflict unfolds and the economic and financial market implications. However, given relatively minor (direct) linkages from Russia into the rest of the world, we maintain our expectations that the recovery can continue irrespective of recent events.

Economic growth will slow but remain above trend driven by strong consumption, elevated savings, pent-up service demand and continued easy financial conditions...

It is expected that the pace of the recovery will vary significantly across countries given different inflation trajectories that will drive an unsynchronised pace of policy tightening as well as ongoing COVID-19 management. **Mary** expects to see global economies being more desynchronised than in recent years – with the U.S. economy red hot, China's growth slowing precariously, while the EU, Japan and the rest of emerging markets are somewhere in between.

Desynchronised growth rates
Global GDP growth 2020-2022

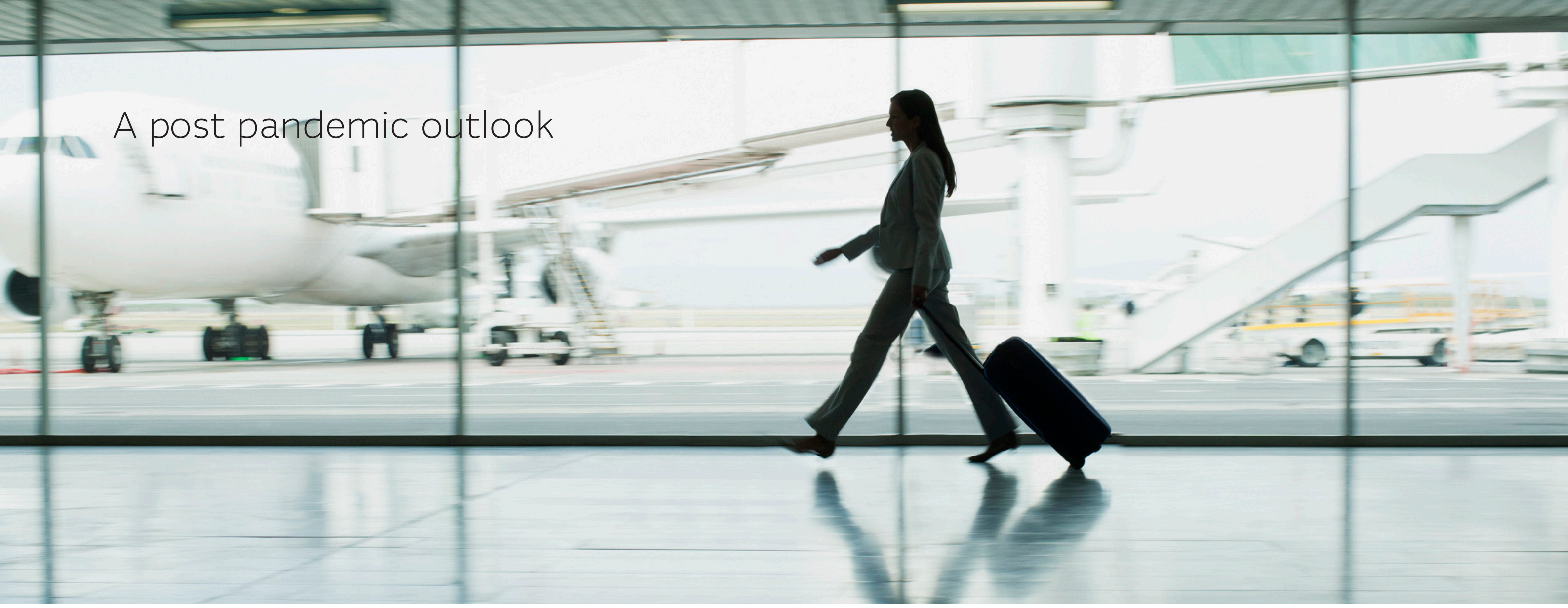


Source: Factset, MWM Research, February 2022

Inflation has dominated recent discourse, with numbers coming in higher and persisting for longer than all but a few had expected. The panel agrees that the baseline scenario is for inflation momentum to peak and then moderate in late 2022 as goods demand slows and services continue to recover, inventory balances are restocked, supply chains normalise and energy prices come down.

Libby sees U.S. inflation slowing but remaining above the Fed's target throughout 2022. While at a global level, **Tracey** expects that persistence of inflationary pressures will vary by market. Over the medium-term **Claire** thinks we are likely to be in a more inflationary environment compared to the last decade. However, our panel does not think that inflation poses a systemic risk for markets given the willingness of central banks to start raising rates in response to inflationary pressures.

> “(It's unlikely) that .... inflation poses a systemic risk for markets given the willingness of central banks to start raising rates in response to inflationary pressures ...”
>
> **Claire**



Elevated and stickier inflation means our panel expect a number of interest rate increases to be forthcoming from the Fed, and other central banks are likely to follow suit. **Libby** expects the Fed to start hiking rates in March and to begin shrinking its balance sheet around midyear. **Tracey** highlights that the number and quantum of rate increases (e.g. 25 bps or 50bps), remain unclear and will likely result in continued market volatility and variability in the pace of economic recovery throughout the globe. This elevated volatility will likely continue to dominate macro and markets in the near to medium term.

Domestically, **Jun Bei** expects the economy to be underpinned by continued strength in commodity prices and strong housing market activity. Similarly, **Katie** believes that this sets up the Australian economy to outperform the rest of the world over the next 12 months, albeit the trajectory is unlikely to be smooth. While job growth is strong, saving levels high, credit growth strong and commodity prices elevated, rising costs are starting to be felt and interest rates are likely to be rising by the end of 2022. **Katie** is more cautious on the housing construction sector, with the massive government stimulus creating a pull forward of supply and, with population growth remaining muted, a likely housing surplus into 2023.

Neither is concerned about the upcoming Federal election. **Katie** highlights elections always create short-term uncertainty, particularly when the policies of each party are not highly transparent. However, the disruption is not typically sustained, and long-term fundamentals are likely to prove to be more important. **Jun Bei** thinks that there may be risks to the upside given the election which may result in consumer-oriented stimulus in the form of pull forward tax cuts and small to medium enterprise incentives.

> “Australia is likely to outperform the rest of the world supported by a strong labour market and credit growth, high levels of savings and elevated commodity prices”
>
> **Katie**

...and the risks?

On the downside there is general agreement on three key risks:

1. Persistent inflation, prompting central banks around the world to shift towards more aggressive monetary policy tightening
2. Elevated geopolitical risks and in particular rising conflict between Russia and Ukraine and its implications for energy prices / inflation
3. Lingering issues from COVID-19 although the risk of a widespread disruption to global activity has now been greatly reduced.

Tracey notes, some areas are reopening and essentially living with COVID-19 in a new normal, although others, such as China / Hong Kong maintain a zero-tolerance policy. Differences in ongoing COVID-19 management, future variants as well as new treatments will all impact / create divergences in recovery paths. **Rose** sees both upside and downside risks to the global growth backdrop from the degree of monetary policy tightening. On the one hand, there is the risk of tighter financial conditions from a more hawkish than expected policy response however, it is possible that inflationary pressures ease more quickly than anticipated, implying less tightening than the market currently expects. **Claire** adds the possibility of increased productivity from efficiency gains made by wide-spread technological adoption would also likely ease inflation concerns. Our panel is optimistic on the global backdrop and expect the recovery to continue uninterrupted through 2022. While it is a consensus view that growth momentum will decelerate from the extraordinary levels seen in 2020-21, it should remain above trend – driven by strong consumption, elevated savings, pent-up (services) demand, continued easy financial conditions and recovery.

Geopolitics

Libby sees three main risks going into 2022:

1. The risk of a protracted conflict between the Ukraine and Russia
2. Increasing tensions between the U.S. and China, and the possibility of a more aggressive stance by China on Taiwan
3. Iran's growing nuclear weapons capabilities.

> "The world has evolved from a more unipolar world (US and its allies) to a multipolar world over the past two decades"
>
> **Libby**

All three underscore how the world has evolved from a more unipolar world - one dominated by the U.S. and its allies to a multipolar world - the West vs. an increasingly emboldened China/Russia/Iran/etc. over the past two decades. The risks in China and Iran are secular in nature, but nevertheless raise the potential for shorter term policy mistakes and unintended consequences.

What have been key hits and misses in President Biden's first term and what are the implications?

Libby: Legislatively, President Biden has actually had more successes than several of his predecessors in their first year: He passed the $1.9 trillion COVID-19 relief bill in March as well as the much ballyhooed $550bn Bipartisan Infrastructure Framework in November, which makes important investments in physical and digital infrastructure. He has put in a more diverse (and more female) cabinet than ever in American history and has been able to – after some fits and starts roll-out a relatively successful vaccination effort against COVID-19.

Nevertheless, despite some objectively positive achievements, there have been several misses as well: A botched withdrawal of U.S. troops in Afghanistan, a premature spiking of the proverbial football on COVID-19 in July 2021 right before the Delta and Omicron variants tore through parts of the country, and importantly, an intra-party battle between the progressive Democrats and the moderate Democrats, which has distracted from his achievements and stalled his signature legislation, the Build Back Better bill.

The President's relatively poor approval ratings and the general sour mood of the American electorate – should they stay that way - likely means that Democrats will face a very grim midterm election in November, very likely losing the House and very possibly losing the Senate. Should Republicans take back control of both chambers, that means more gridlock, more polarization, more policy volatility (e.g., debt limit standoffs, government shutdowns), and probably a premature focus on 2024 and calls for Biden not to run again.

> "Should Republicans take back control of both chambers, that means more gridlock, more polarisation, more policy volatility..."
>
> **Libby**

What major policy shifts can we expect in the lead up to the U.S. midterm elections and what do you expect the outcomes to be?

Libby: In the leadup to the U.S. midterms, Democrats will try to get some "points on the board" by passing stalled legislation, including the U.S. China and Innovation Competition Act (USICA), which provides funding for U.S. semiconductor fabrication and supply chain resiliency. They will also try to pass – at least some of – the Build Back Better agenda, which could include passing provisions on climate and childcare. There will also be increased focus on big tech (and anti-competitive behaviour in general) with the view that big is bad in Washington.

Equity markets

Disrupted but not broken

What is your outlook for equity markets and how does it compare to the last 12 months?

Jun Bei: I remain positive on equity markets, particularly post the selloff in January. 2022 was always going to be the year of consolidation as the market transitions from simply looking past the pandemic disruption to a more normalised economic growth path, with central banks withdrawing emergency levels of liquidity support. The underlying economic fundamentals are sound despite higher interest rates, though the start of the tapering will support cyclical sectors with earnings tailwinds. Corporate earnings are expected to grow in the high single digits over the next couple of years, excluding the materials sector. This, combined with the expected high single digit dividend yields, means the Australian market is well positioned to outperform others.

"Corporate earnings are expected to grow in the high single digits … combined with high single digit dividend yields, the Australian market is well positioned to outperform others."

Jun Bei

Katie: A pullback in equity markets is underway domestically and globally and the backdrop of rising interest rates will continue to be negative for equity valuations. Having said that, it is challenging to find income outside of equities, and equities typically offer better inflation protection than bonds and cash given the ability for many companies to pass through rising input costs through higher prices. Small caps have underperformed their large cap peers in the early stages of this pullback as investors de-risk, though with small caps now trading at a 20% discount to large caps and offering better exposure to the stronger performing Australian economy, we think the relative opportunity is now compelling.

However, not all our panellists are positive on the equity market outlook. **Mary** is more cautious for several reasons:

1. Excluding the March 2020 blip, we are ~13 years into a bull market. A meaningful pull back would not be unexpected
2. Valuations remain relatively high providing little downside support
3. Earnings upgrades are decelerating versus 2021 and company guidance is less positive, if there is any guidance at all
4. Only a handful of stocks are driving the market as breadth of market returns narrows.

What are your most and least preferred sectors?

Mary's most preferred sectors of the market are high quality, large cap tech stocks that are in an earnings upgrade cycle (such as Apple, Amazon, Google and Microsoft). These are well known stocks but are delivering on earnings, are attractively valued, have impressive liquidity, high returns and fortress balance sheets which make for comfortable stocks to be in at this point in the market cycle. Other preferred areas include: EVs (Tesla, Mercedes Benz), luxury (LVMH, EssilorLuxottica) and interest rate sensitive banks (Bank of America, Wells Fargo). Her least preferred area is unprofitable tech.

"I believe returns will be generated in three buckets: reopening economy, corporates with cyclical earnings tailwind, and interest rate beneficiaries."

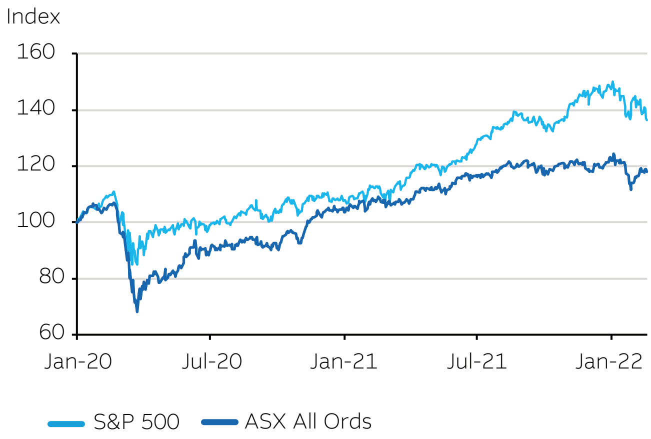
Jun Bei

Jun Bei believes returns will be driven by three categories: stocks leveraged into the reopening of the economy, stocks with cyclical earnings tailwinds, and interest rate beneficiaries. As a long/short manager, Tribeca focusses on identifying pair trade opportunities within sectors and seeks to generate alpha from both the long and the short side rather than just sector selection.

A post pandemic outlook

Jun Bei continues to see opportunities in out of favour sectors, such as technology and healthcare, particularly when they have been sold off to reasonable valuations. She now believes they are providing rare buying opportunities not seen since the pandemic first hit.

Equity markets have recovered from COVID-19 lows



Source: Factset, MWM Research, February 2022

What has made your navigation of the pandemic period different to other fund managers?

Australian equity managers, **Katie** and **Jun Bei**, agree that market volatility and selloffs have presented prime opportunities to buy good businesses at reduced prices, while keeping a focus on long-run returns.

...and what do you attribute your performance to?

Jun Bei: The key to success for the Tribeca Alpha Plus Fund is our ability to take advantage of market volatility or sell offs to buy high quality companies while using our short book to benefit from companies' expected poorer returns. The ability to short has enabled us to be nimble and agile and, most importantly, to buy companies that are out of favour. This in turn delivers superior returns over the long run. We are also style neutral which allows us to find incredible investment opportunities through any market cycle both on the long and short side.

> "The ability to short has enabled us to be nimble and agile and to buy companies that are out of favour"
>
> **Jun Bei**

Katie: A couple of factors have proved to be very important to our team in navigating the last 12 months. Firstly, we have a large team of investors across equities, credit and macro and we were able to draw on strong insights from across the team to understand the impact on the economic cycle and the likely trend for inflation and interest rates. Secondly, we continued to apply a long-term lens to our thinking on the impact on companies and industries. This meant, in many cases, we saw volatility create opportunities to buy good businesses at reduced prices. Applying that same thinking to the likely volatility over the next 12 months is likely to see further opportunities emerge for long term investors.

> "… volatility has created opportunities to buy good businesses at reduced prices … (ongoing volatility) … is likely to see further opportunities emerge for long term investors"
>
> **Katie**

What do you see are the top ESG challenges facing equity investors?

Mary: Climate change is obviously the big one. Mega cap companies in global equities have immense amounts of resources to dedicate to their climate change strategies. Google for example, has been carbon neutral since 2007 and will be carbon free by 2030! But smaller cap companies or companies outside of the US and Europe still have a lot to do on disclosure and outlining credible pathways to net zero.

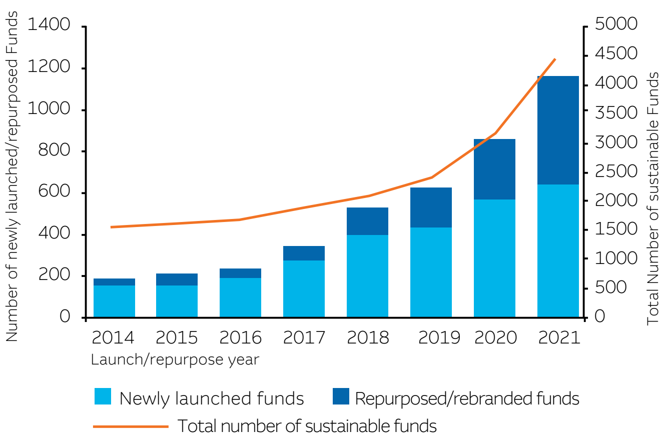
Modern slavery is the topic where we have the best two-way conversations, with global companies. Australia has world leading modern slavery legislation and there are many companies in many countries in the world that don't know how to proceed with respect to modern slavery. Engaging with global companies and going with them on this journey is very exciting.

Diversity, inclusion and corporate culture are increasingly important. Recently in both the US (Activision) and Australia (Rio) we've seen corporate culture come to the forefront for certain stocks. Analysis of corporate culture in the context of ESG, diversity and inclusion is an area that is on the rise.

> "Diversity, inclusion and corporate culture are increasingly important … Analysis of corporate culture in the context of ESG, diversity and inclusion is an area that is on the rise"
>
> **Mary**

Sustainable investment products have accelerated since 2020

Newly launched and repurposed sustainable funds



Source: Morningstar Direct, Morningstar Research, December 2021

Fixed income

“Higher”, but not “high” bond yields coming

Our fixed income panellists are broadly in agreement with the view that we have seen the lows for bond yields in this cycle and that despite a rapid rise (on par with the selloffs in 2008 and 2020), our panel thinks long yields are likely still going higher. Policy rates are set to rise over the coming 12 months which is likely to cause some indigestion for pricing in credit markets however, broadly speaking the credit outlook remains benign supported by above trend economic growth and strong corporate fundamentals. Financial conditions are expected to tighten from ultra-easy settings but not by enough to threaten the growth or credit and equity markets outlook.

What is your outlook for fixed income and how does it compare to the last 12 months?

Leah: Over the next 12 months we expect to see global central banks raise policy rates gradually as well as the end of bond buying programs implemented to support markets at the onset of the pandemic. Persistent levels of inflation, together with strong labour markets means that zero policy rates are not appropriate. Consequently, we expect to see bond yields rise moderately to around ~2%-2.25%, driven by real yields as cash rates move higher, not because inflation increases. We anticipate some widening in credit spreads widen – albeit from historically low levels – as growth momentum slows and equity volatility remains elevated. But while credit spreads will show volatility, the credit default outlook is benign supported by strong corporate balances, above trend global growth and the insatiable hunt for yield.

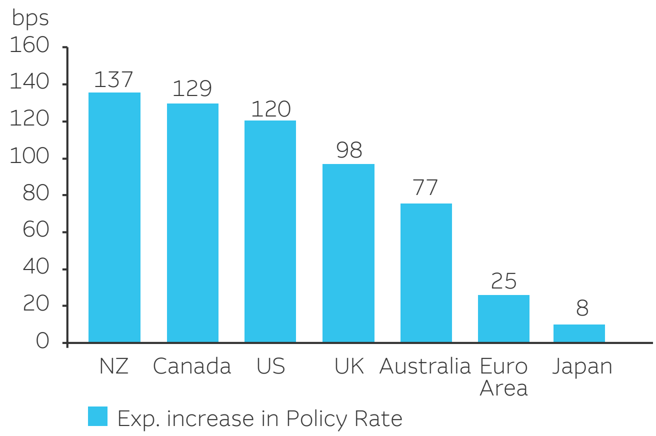
Laura: Over the last 12 months we witnessed extreme moves in rates markets on par with 2008 and March 2020 (COVID-19) which led to large distortions across curves. In the US we saw the long end of the curve fall while rates at the short end increased markedly. In Australia we saw even greater divergence between the long end and the short end, with 3-year yields rising by 0.9% over October (this represents a 290% change!) while at the same time 30-year bond yields only rose by 0.4% (17% change).

What are some key drivers and challenges facing bond markets over the next 12 months?

Laura: We see the potential for the selloff in bonds to continue while concerns about inflation remain. Markets appear to be pricing in peak rates for in around two years which contrasts with the sell off last year which was led by the long end. Going forward, history has shown that curves tend to flatten in tightening cycles, however this might be interspersed with periods of steepening as the market grapples with the end of QE and whether central banks can deal with inflation appropriately. Current pricing seems to suggest the market has confidence that inflation can be managed.

Leah: Fixed income markets are likely to be volatile as central banks continue winding back bond purchases as well as begin raising rates. Elevated inflation means that the uncertainty in the timing and amount of rate increases is high and this is being reflected in the short end of the yield curves as Laura pointed out. On the flipside, Australian rates markets are pricing in 4-5 rate hikes over the course of 2022 which looks overly aggressive to us – we expect the Reserve Bank of Australia (RBA) to raise the cash rate by 25bps in August 2022. This tug-o-war between markets and the RBA will likely see volatility in domestic markets remain elevated.

Cash rates are rising across the world
Cumulative market expected cash rate rises by end 2022



Source: Bloomberg, MWM Research, February 2022

"The current narrative that bonds no longer reduce portfolio risk because of low yields ...fails to consider the importance of bond volatility in reducing overall portfolio volatility."

Laura

The role of bonds in a portfolio has traditionally been as a diversifier to growth assets. Do you think bond investments continue to serve their purpose?

Laura: Yes, we believe the current narrative that bonds no longer reduce portfolio risk because of low yields and a potential shift in bond-equity correlation fails to consider the relative importance of bond volatility in reducing overall portfolio volatility. The role of bonds in the portfolio is to provide volatility reduction and bonds will continue to lower portfolio volatility if bond volatility is lower than equity volatility, even if the correlation is positive. While better outcomes can be achieved under negative correlation, this is secondary to the impact of relative volatility.

How aggressively will central banks remove policy stimulus and what are your thoughts on the bond markets preparedness?

Leah: Globally, central banks are likely to be cautious on the speed with which they remove policy stimulus and raise rates. We have already seen strong forward guidance and any moves in either bond buying programs and rate rises are well telegraphed and we expect that this will continue. The biggest risk to bond markets in our view is that elevated inflation proves stickier than expected which would see central banks increase the pace of the rate hikes and risks tightening financial conditions more than the market is expecting.

Laura: While inflation is no longer considered transitory, the question remains as to how persistent it will be which leads to the question of how many rate hikes are needed to combat this inflation. On the one hand it can be argued that inflationary pressures are still only a short-term issue because the main causes are transitory (COVID-19 related supply chain interruptions). Others are arguing that the deflationary factors we have witnessed historically are no longer present.

Importantly, we don't have an opinion on which argument is correct because we think this is incredibly difficult to do. However, due to persistent inflationary pressures, interest rate markets are now pricing in more, and sooner, rate hikes. This has led to considerable market turbulence which in turn has led to greater relative value opportunities.

"...due to persistent inflationary pressures, interest rate markets are now pricing in more and sooner rate hikes...which has led to considerable market turbulence which in turn has led to greater relative value opportunities"

Laura

Real assets

Cyclical and secular tailwinds to continue

What is your outlook on the sector and how does it compare to the last 12 months?

Tracey, **Alina** and **Elizabeth** are positive on the 12-month outlook for real assets. Increasing demand and capital flows from an investor perspective provide a tailwind for growth, albeit at a slower pace than 2021 and showing variability by region. The sectors' inflation hedging characteristics, combined with current spreads to bond yields which are within and, in some cases, wider than historical norms, should see investors continue to find real assets attractive.

Tracey: Real estate essentially 'houses the economy' and as such, we believe that the outlook for real estate will vary by region but globally remains positive with continued, albeit slower growth, than 2021. Given the income-oriented nature of real estate which can also have some inflation hedging characteristics combined with current spreads to bond yields which are within and in some cases wider than historical norms, capital flows should continue to find real estate attractive. However, while cyclical growth will broadly drive real estate demand, investors are likely to be more discerning of the types of real estate in which to invest, focusing on real estate supported by secular trends such as demographics, technology, and climate. This dynamic will continue to drive divergence across sector and market performance, and it is anticipated to result in a more delineated set of winners and losers.

> "Real estate essentially 'houses the economy' … the outlook for real estate will vary by region but globally remains positive with continued, albeit slower growth, than 2021"
> **Tracey**

Alina: We are finding increasing demand for our asset class from a long-term investment perspective. There has been recognition with respect to the state of global infrastructure and the need for maintenance and expansion of these assets. There is a greater focus on pairing of the societal impact of investment in infrastructure with the advancement of an attractive asset class for investors.

> "…the competitive advantage Australian agriculture possesses, its unique sustainability attributes, and strong demand tailwinds, position the asset class as an increasingly attractive investment proposition."
> **Elizabeth**

Elizabeth: The Australian agriculture sector has just experienced one of the most positive production seasons in recent decades with a record winter crop harvest, elevated commodity prices and resilient demand.

It's been an incredibly positive 12 months for our investors with strong operating returns and significant appreciation in the value of underlying farming assets. On a longer-term view, the competitive advantage Australian agriculture possesses, its unique sustainability attributes, and strong demand tailwinds, position the investment class as an increasingly attractive investment proposition. As one of Australia's largest investors in farmland we see a real opportunity to generate long term value for our investors by levering these dynamics in a sustainable manner.

Where do you see key areas of strengths and weaknesses within your sector?

Alina: On infrastructure, we continue to see increasing demand and acceptance from investors in the benefits of having infrastructure investments in portfolios. What has also intrigued us over the past few months, is the proliferation of open-ended funds and recognition that historical PE fund structures should not be adopted for this asset class. This is and has been our strategy for a number of years and we are so pleased to see this recognition in the market. With respect to weaknesses, there is the risk of long-term rising rates and the potential impact on discount rates and valuations.

"We continue to see increasing demand and acceptance from investors in the benefits of having infrastructure investments in portfolios"

Alina

Tracey: Key areas of strength are those areas where long term structural shifts were well underway prior to the pandemic which further accelerated these shifts. These areas include properties that benefit from the growth of e-commerce, technology, life sciences and urbanisation. Further, it is increasingly critical to have a commitment to ESG (Environmental, Social and Governance). Notably, this commitment is being driven not just by investors but by employees, tenants and other stakeholders. Firms and asset portfolios with a strong ESG commitment and corresponding performance will be key benefactors while those who do not have such a commitment will suffer reduced traction with stakeholders and assets which face obsolesce. Given the global macro environment, long term secular shifts and the increasing importance of ESG, there may potentially be more divergence not just in the performance of assets but more broadly in the performance between managers.

"Farmland is uniquely placed to sequester carbon via vegetation and soil, helping offset emissions but also providing farmers with a potential new income stream in the form of carbon credits."

Elizabeth

Elizabeth: An investment in core farmland over the long-term has delivered strong and stable returns and has exhibited a low correlation with other asset classes. Since 1991, Australian agriculture[1] has delivered an annualised return of 8.4 per cent, better than both global equities and bonds. We are investing in land rich assets that have pervasive and long dated value drivers, specifically the increasing global demand for protein the world faces with the challenge of less arable land to do it on. In addition, amid growing inflationary pressures across the world, agriculture has inflation hedge characteristics as a result of its revenue line composition.

An emerging tailwind for the sector is the position it will play in reducing and offsetting emissions as the world strives for carbon neutrality. Farmland is uniquely placed to sequester carbon via vegetation and soil, helping offset emissions but also providing farmers with a potential new income stream in the form of carbon credits. The key strength I see at the farm level is that Australian farmers are really embracing technology to drive productivity and at the same time they're increasingly focused on sustainability - which is complimentary to the productivity imperative and drives resilience.

When I think about weaknesses, I do think the sector can do more to drive diversity and inclusion and evolve the historical image of a 'great' farmer. I am encouraged by what I see when I travel through our northern stations in particular where our annual intake of station hands this year was 39% female. We need diverse talent coming into the sector, but we also need to train and equip all of our people with the skills and knowledge to nurture and grow diverse talent in an environment free from the biases of the past.

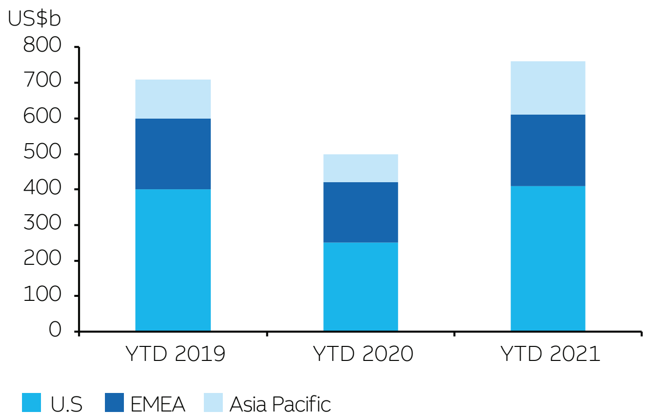
1 Australian agriculture returns refer to large farmland where gross turnover exceeds $US 1 million.

What surprised you or didn't work out as expected in 2021 and where do you see upside/downside surprise potential in 2022?

Tracey: I think the pace and speed of change has been a surprise and has been most pronounced within the US. The speed with which the US economic recovery and ensuing transaction activity took was surprising as evidenced by 2021 transaction levels which exceeded 2019's pre-pandemic volume. The speed with which institutional investors and managers have embraced what were historically considered 'niche sectors' has been nothing short of astonishing for an asset class that is not known as being an innovative early adopter.

Finally, the pace at which individuals are transitioning between firms and careers including those in real estate is also breathtaking and now has its own moniker, 'The Great Resignation'. Ultimately all of this change should drive our firms and portfolios towards better outcomes on behalf of its stakeholders and clients.

Global real estate investment has breached pre-pandemic levels
Real estate investment volumes, 2019-Q3 2021



Source: JLL, November 2021

How are you managing your portfolio for the current environment?

"We are focused on secular trends … including industrial properties which support e-commerce, life sciences and medical offices where demand is being driven by tech and demographic trends"

Tracey

Tracey: We are focused on several key investment management themes:

1. We are focused on investing along with long term secular trends, e.g. industrial properties which support e-commerce as well as life sciences and medical office where demand is being driven by technology and demographic trends.
2. We are seeking to maintain good diversification, focus on those assets with durable and growing income streams while minimising real estate risks that we can control.
3. We are keenly focused on all aspects of ESG ranging from the assets that we invest into, to the partners that we associate with, to the hiring, training and promotion practices within our firm.

Elizabeth: We take a science-based approach to ESG management across our portfolio, setting science based targets for our assets across ESG dimensions including emissions, animal welfare, biodiversity, conservation, run-off management, water-use efficiency, and soil health. We are active in several industry R&D efforts to improve measurement and I am also fortunate to be a Member of the Taskforce on Nature-related Financial Disclosures (TNFD), which is a global effort to provide companies and investors with a reporting and disclosure framework to enable companies and investors to report and act on nature related risk. Then specifically in relation to carbon emissions, we have the support of the global Macquarie Asset Management (MAM) business and therefore can leverage a huge platform as we look at best practice in integrating ESG considerations across our portfolio. In 2021 MAM committed to an ambitious goal of carbon neutrality across the assets it manages by 2040, so across our agriculture platform we are developing pathways to ensure we meet this target by incorporating a focus on emissions into our daily decision-making processes.

What are the opportunities stemming from positive political support in the infrastructure sector?

Alina: Using the new US Infrastructure Bill as an example, this bill includes various provisions with respect to clean energy, such as building transmission systems to areas that can support renewable power projects, which should provide additional growth opportunities for our portfolio. For telecom, the bill includes significant subsidies to fund further broadband deployment.

We will certainly be targeting sectors where the provisions of the bill positively impact potential investments. The bill represents the largest investment in US infrastructure in generations. There is the potential for subsidies and public private partnerships to facilitate investment across several industries, such as transportation, clean energy and broadband; and subsidies for certain manufacturing industries, such as batteries, that could bring down costs for projects and make them more economic and widespread. This is just a subset of the opportunities generated; we expect the level of government support under the bill for the next 10 years to massively increase the investment opportunities for private capital.

> "The infrastructure sector must support renewable and transitional technologies, while at the same time recognising the need to continue meeting base load demand"
> **Alina**

What do you see are the top ESG challenges facing your sector in real assets?

Alina: Global warming and climate change is a key challenge for our sector. The infrastructure sector must support renewable and transitional technologies, while at the same time recognising the need to continue meeting base load demand. Changing weather patterns and global warming impacts must now be recognised in our screening, underwriting and asset management activities and insurance costs continue to increase dramatically.

Current assets (mainly renewables) have seen climate change impacts due to more frequent storms, changing precipitation patterns (more rain in short periods of time making it hard to manage), less consistent wind patterns and higher unmanageable wind speeds, more frequent forest fires creating risk of damage as well as smoke haze impacting irradiance levels and wind patterns, hotter summers, colder winters with more frequent ice and snowstorms. Fiera has an operational excellence division within its asset management group that focuses on issues such as these. We look to work with our partners and operators to implement new technology and put protections in place to mitigate such events.

Elizabeth: There are significant ESG opportunities within the sector that will help drive not just sustainability, but productivity and profitability as well. I'm proud that at Macquarie Agriculture & Natural Assets we have been measuring and reporting on sustainability for many years and see sustainability as an inherent strength of the sector. But a focus on sustainability is more than just measuring and reporting, it can really generate value for investors. An emerging example of this is one of the more exciting opportunities for farmers to generate revenue not just from carbon project development but also the "stacking" of carbon offset payment with biodiversity credit revenue. This is a true win-win, whereby less productive land can be utilised to generate income while providing a climate solution and enhancing biodiversity. The sector is very focussed on R&D and the development of solutions that verify and certify the outcomes to ensure that all stakeholders have confidence in the long-term nature-based outcomes.

Alternatives - macro strategies

Not just a risk diversifier

What are the most important trends driving investment positioning and your most / least favoured areas?

Rose: Our investment process centres on macro themes which reflect the mispricing of macro drivers over the long and shorter term. These themes are secular or cyclical in nature: secular trends arise from structural shifts offering multi-year opportunities while cyclical themes identify the cyclical phase we are in at a regional basis.

We identify three current secular themes:

1. Adoption of new technologies; one expression of this view is through select exposure to cloud computing names which are benefitting from strong demand as enterprise IT workloads move from on-premise to cloud infrastructures.
2. Consumer demand in emerging markets, where we are seeing the growth of the middle class leading to rising demand for financial services. We hold select Indian banks which are high quality and well-placed to benefit from rising financial penetration in the market.
3. Increased focus on climate change: there has been increased policy focus around the globe to deliver reductions in carbon emissions across high-emitting industries, such as buildings and transport, which supports favoured names delivering energy efficiency solutions.

"...the adoption of new technologies has become widespread ... our exposure to this theme from cloud computing names."

Rose

On the other hand, we are also seeing that regions are in a slowdown cyclical phase, with China the exception which has been in a contractionary phase of the cycle. This has led us to have low exposure to Chinese assets, however, we note the recent shift from authorities to focus on stability over reform and a move towards more supportive policy.

Do you think macro strategies will provide the hedging and diversification benefits that they are expected to by asset allocators?

Rose: It is important to recognise that macro funds are not designed to just provide hedging benefits as we can be risk-takers when the underlying backdrop is supportive. The key characteristics of our investment approach - being macro-driven, focused in our strategy selection and flexible to adjust exposures as the backdrop evolves - are factors that give us the potential to offer these benefits.

Our portfolio shifts over the course of 2020 provide a good example. We rapidly adjusted portfolio exposures lower around the outbreak of COVID-19 in 1Q20 and subsequently were able to meaningfully add to portfolio risk levels later in the year as we saw economies re-open and demand strongly recover. This was an evolving backdrop which we navigated well.

"Macro funds are not (just) designed to provide hedging benefits ... as (we can be risk-takers when underlying conditions are supportive"

Rose

The start to 2022, however, has been more difficult as the market pricing of a shift towards hawkish monetary policy unfolded much more rapidly than we had anticipated. This led to a negative performance outcome in January in a month where we also saw equity and fixed income markets sell off, given our risk stance had been moderately risk-on following gaining more comfort on the Omicron variant coming into the year.

How are you managing your portfolio for the current environment?

Rose: Policy support today is a key difference compared to 2020 when central banks provided forceful policy accommodation in addition to fiscal support from governments. These two levers are shifting into less supportive territory today and we expect tighter policy to lead to higher volatility in markets. In light of this, we are taking a more moderate risk stance and we will continue to be flexible in portfolio positioning where necessary. We calibrate our level of net equity risk using equity futures as well as adding robustness to our portfolio by holding diversifying strategies across asset classes, such as a long US dollar position for now which currently looks more attractive compared to US duration. We continue to look for opportunities to add convexity to the portfolio, such as through equity and currency options, using these hedging strategies to protect against risk-off moves.

> "…we are taking a more moderate risk stance and we will continue to be flexible in portfolio positioning where necessary."
>
> **Rose**

How are you incorporating ESG factors into your portfolio decision making?

Rose: From a top-down perspective, our Climate Change Response macro theme reflects the increased focus on sustainability from governments, companies and individuals which presents multi-year opportunities across industries globally as efforts are made to transition to a lower carbon economy.

We also consider ESG from the bottom-up analysis conducted at the strategy selection stage of our investment process. We seek to mitigate negative risk scenarios stemming from ESG, in addition to identifying where there are opportunities linked to sustainability which might add conviction to our investment thesis. We go one step further in our Sustainable Fund and lean into positions which exhibit exemplary ESG credentials or offer products and services that are linked to sustainable themes, such as social advancement or climate risk management.

Alternatives – private markets

Patience is queen

What does the private equity landscape look like over the next 12 months and how does it compare to the last 12 months?

Claire: While the current environment makes it quite difficult to predict what the next 12 months will look like given there is still a lot of uncertainty with COVID-19, generally, we expect a slowdown in 2022 compared to 2021 - particularly given the performance over the last two years has been outstanding.

We expect more price inflation on the most sought-after assets, which we still believe will be in tech and healthcare. As seen after GFC and COVID-19, we expect to see a flight to quality, with people looking for the safest options. When there is uncertainty, there's safety and comfort in buying a nice stable business with recurring revenues. There remains some potential upside in certain niches of the market – given there is still uncertainty this always creates the opportunity for outperformance. We think the coming years will separate managers in terms of returns, the 'easy money' will be off the table, so to speak. We think the coming 12 months will really force investors into more complex transactions to find value, and/or finding companies and driving performance and creating value through company expansion – this excites us as we enjoy dealing in complexity and creating value, as do the managers we partner with.

> "...the coming 12 months will really force investors into more complex transactions to find value, and/or drive business performance and creating value through company expansion."
>
> **Claire**

How do you expect private equity market to perform relative to public markets over the coming 12 months?

Claire: We think the illiquidity premium has been largely eroded given the popularity of PE with institutional investors who don't place a great premium on liquidity, and this is further evidenced by deals like Sydney airport being bid to be taken private at a premium to its listed price. We think the most important component of private equity investing today is finding the complexity premium. That complexity premium can manifest itself in several ways, including specialisation, reputation and reliability, relationships and exploring more fragmented markets.

> "...over a longer time horizon, we still expect private equity to outperform public markets given the access to a greater range of companies and particularly companies at earlier stages of their development."
>
> **Claire**

The PE market has huge discrepancy in terms of manager performance – much more than in listed markets where all investors have access to the same information and same companies. Manager selection will be paramount, particularly now that the illiquidity premium is of less importance.

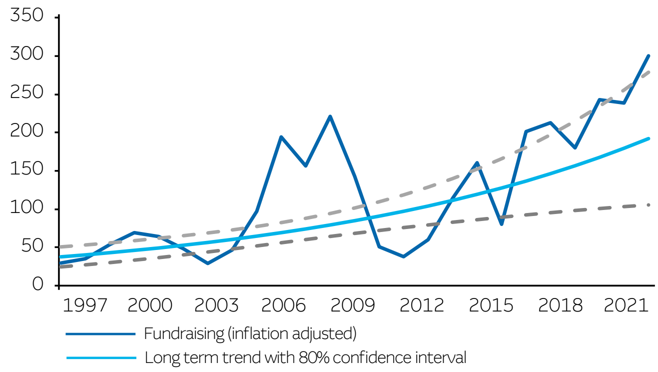
We still think that over a longer time horizon, PE will outperform public markets given the access to such a greater range of companies and particularly companies at earlier stages of their development. Having said this, making short term calls is always difficult, particularly in private markets which are by nature slower moving beasts. Importantly we make investment decisions for their return over a 3-5 year time horizon rather than a 12-month time horizon.

Extraordinary amounts of capital have flowed into the private markets over the last two years, how do you navigate the increased competition for assets?

Claire: Schroders Capital uses a proprietary early indicator for vintage year performance expectations in private assets, called the fundraising indicator (FRI). The FRI uses historic data to show deviation of fund raising from its long-term trend, as these deviations are significantly correlated with vintage year performance.

The causal link is clear. More fund-raising leads to more uninvested capital - dry powder - which leads to higher entry valuations. This in turn can reduce vintage year performance expectations. The chart below shows that private equity fund raising in the US and Europe is notably above its long-term trend for buyouts of all sizes, for growth capital and for venture capital.

Fundraising in private markets move above long-term trends
Large buyouts: annual fund raising (US/ Europe) and long-term trend



Source: Preqin, Schroder Adveq, 2021

We believe the illiquidity premium can no longer be relied upon due to these massive inflows, so to navigate the current market environment, we believe that investors are well advised to focus on selectivity, the complexity premium and diversification within private assets. Our ability to invest across geographies and across types of investments gives us the ability to find pockets of value in a competitive market.

> “... the illiquidity premium can no longer be relied upon...we believe investors should focus on selectivity, the complexity premium and diversification...”
>
> **Claire**

We also focus on the small to mid-cap segment of the buyout market, which has now started to fundraise above its long-term trend, but not to the same extent as the large buyout market which has a lot of dry powder to contend with from year-on-year successful fundraising vintages. Even in this segment, however, you still need to be very analytical of opportunities and ensure you're paying a price whereby you can still foresee generating a strong multiple. Now is not the time to get greedy – patience is king (or better worded as 'patience is queen' given the theme of this publication!).

That concludes our expert panel round table.

We wish to thank all our panel members for their time, insights and views.

Biographies

Libby Cantrill, CFA - Managing Director, Head of Public Policy, PIMCO

Ms. Cantrill is a managing director and the head of public policy for PIMCO. In her role, she helps to coordinate the firm's response to public policy issues and analyses policy and political risk for the firm's Investment Committee. She is also a member of the firm's Americas Portfolio Committee. Additionally, she is the co-head of PIMCO's New York Office and is a founding member of PIMCO Parents and PIMCO Women. Prior to joining PIMCO in 2007, she served as a legislative aide in the House of Representatives and also worked in the investment banking division at Morgan Stanley. She has 17 years of investment experience and holds an MBA from Harvard Business School and received her undergraduate degree in economics from Brown University. Ms. Cantrill is a CFA charterholder and a regular contributor to Bloomberg and CNBC. She is also a member of the Council on Foreign Relations.

Katie Hudson – Portfolio Manager and Head of Australian Equities Research, Yarra Capital Management

Katie has more than 25 years' experience in investment markets. She is a Portfolio Manager focused on the small and midcap universe and, in addition, serves as the firm's Head of Australian Equities Research. Prior to transitioning to Yarra Capital Management, Katie was a Portfolio Manager and Managing Director at Goldman Sachs Asset Management. Katie has previously worked at JM Financial Group on individual managed account portfolios and at AR Capital, a long/short fund, where she was involved with investment strategy and portfolio management and as an equities analyst and partner at JBWere. Earlier in her career, Katie spent seven years at PwC where she was a Senior Manager primarily focused on mergers and acquisitions advisory and transaction support. Katie holds a Bachelor of Commerce from The University of Melbourne and is a qualified Chartered Accountant.

Leah Kelly, PhD – Senior Investment Strategist, Macquarie Wealth Management

Leah is an investment strategist in the MWM Investment Strategy Team specialising in fixed income and alternative strategies. Her role encompasses fund manager selection and sourcing, due diligence and monitoring as well as portfolio construction, strategic asset allocations and tactical views. Leah has extensive experience in portfolio construction, asset allocation and portfolio/risk management having worked in global financial markets as a senior portfolio manager across multi-asset portfolios with responsibility for the performance greater than A$12bn in FUM at Colonial First State Global Asset Management (now First Sentier Investors, Sydney) as well as via various quantitative risk roles at RBS (London) and the Reserve Bank of Australia.

Leah holds a PhD in Quantitative Finance and a B. Mathematics and Finance (Hons).

Leah is an Associate Director and has been with Macquarie for 6 years.

Jun Bei Liu, CFA – Portfolio Manager, Tribeca Investment Partners

Jun Bei Liu is lead portfolio manager for Tribeca's Alpha Plus Fund. Since taking over sole responsibility for managing the Fund, she has doubled AUM to over $1bn, making it one of the largest long short equity funds in the Australian Market. She is a passionate, motivated, and dedicated investment manager having built a 16-year career at Tribeca, starting as an analyst and spending time as portfolio manager before taking over the Alpha Plus fund in 2019.

Jun Bei has always had a keen interest in financial markets and the challenges they present. She is fluent in Chinese and only learned English as a teenager upon leaving China and emigrating to Australia as a 16-year-old. Her commitment to self-improvement saw her complete a commerce degree at the University of NSW followed by a number of additional finance credentials including GAICD and CFA. She has strong family values and has managed to build her career while also juggling family life and raising two young children.

She is a prolific contributor to Australia's financial services sector via a regular column for the AFR and frequent appearances for key media outlets and as a speaker at industry events. She especially enjoys the opportunity to share her knowledge and love for markets with all types of investors and has a keen interest in helping promote the growth of like-minded females within the financial services community where she enjoys playing a mentoring role via her advisory committee for Australian Student Asset Management.

Her early childhood has given her an energy for life and a strong desire to contribute to society and in particular to those less privileged. She is a volunteer for her local school board Highfields Preparatory and Kindergarten and continues to look for opportunities where she can share her experience and network to benefit others.

Tracey Luke – Senior Director, Portfolio Management, Invesco

Tracey Luke joined Invesco Real Estate (IRE) in 2012 and currently serves as a Portfolio Manager responsible for developing and managing real estate products and strategies with a focus on IRE's multi-fund strategies across the globe. In addition to her product management responsibilities, Tracey shares responsibility for the coverage of select institutional capital sources and partners globally. Prior to her current role, she served as a Portfolio Manager for Invesco's US Core strategy.

Prior to joining IRE, Tracey was with Liquid Realty Partners, a global real estate secondaries firm, where she served as the Director of Portfolio Management. Prior to Liquid Realty Partners, she held various positions including Experienced Manager in the Global Real Estate Consulting Group at Andersen, Asset Manager at J.E. Robert Companies and Director of Marketing and Corporate Development for Chela Education Financing.

Tracey holds a Master of Business Administration degree from London Business School and a Bachelor of Business Administration degree from the University of Texas at Austin.

Mary Manning – Portfolio Manager, Alphinity Investment Management

Mary is a Portfolio Manager for the Global Fund and Global Sustainable Fund at Alphinity Investment Management. Her focus is on the Consumer Discretionary, Technology and Communications Services sectors.

Mary was previously the Portfolio Manager at Ellerston Capital where she worked from 2012 to 2021. Prior to that she was an analyst at Oaktree Capital where she worked for the Emerging Markets hedge fund in New York and Singapore. Mary also worked as an analyst at Soros Funds Management and she started her career as an investment banker at Citi, where she worked in New York, Moscow and London.

Mary has a PhD in Economics from the University of Sydney and an MBA from Harvard Business School. She is on the board of AIODA and has extensive non-profit experience in Asia and Africa. Mary lives in Sydney with her husband and 2 children.

Elizabeth O'Leary – Head of Macquarie Asset Management (MAM) Agriculture & Natural Assets

Elizabeth O'Leary is a Senior Managing Director in Macquarie Asset Management (MAM) Real Assets. Since 2003, she has held a number of senior corporate roles across Macquarie Group and worked in Macquarie's Australian, UK and Hong Kong offices. In her current role, which she has held since 2014, Elizabeth leads MAM's Agriculture & Natural Asset's platform encompassing large-scale specialised funds and related investment vehicles. She is also a member of the MAM Real Assets Executive Committee. She sits on the relevant Investment Committees and is a board director of various agricultural operating companies.

Elizabeth is committed to developing the natural assets sector into a mature and attractive asset class with growing institutional investment. Under Elizabeth's leadership, MAM Agriculture & Natural Assets has taken a leadership position in the development of methods of measuring, reducing and removing greenhouse gas emissions across its farming operations.

Elizabeth is a keen participant in the natural assets sector as a member of the Energy, Emissions and Efficiency Advisory Committee, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) Agriculture and Food Advisory Group, the Taskforce on Nature-related Financial Disclosures (TNFD) along with not-for-profit boards focused on climate and biodiversity. She is a regular speaker and contributor at industry forums.

Elizabeth was raised on a mixed farm in the Riverina farming region of Australia and has held private interests in farming assets for over two decades.

Alina Osorio – President, Fiera infrastructure

Alina is a seasoned professional in the infrastructure investment and asset management sector. She has worked as an infrastructure investment professional and has been a key player in the sector for almost three decades.

As President of Fiera Infrastructure, Alina is responsible for leading the firm and overseeing its investment, asset management and finance teams. Fiera Infrastructure currently invests and manages over C$3.4 billion in AUM across the infrastructure asset class, including telecommunication, Public-Private partnerships, renewables and transportation.

Before joining Fiera Infrastructure, she was CEO of Aquila Infrastructure, where she oversaw the creation of the firm and its growth. Prior to that, she led the infrastructure program at OPTrust, with a capital allocation of approximately C$2.5 billion. Alina also served as the CEO of the Macquarie Essential Assets Partnership ("MEAP"), North America's first unlisted infrastructure fund, which had a mandate to invest in Canada and the United States.

Laura Ryan, PhD – Head of Research, Ardea

Laura is responsible for both the Client Solutions and Portfolio Research teams. The Client Solutions team undertakes independent quantitative research to help clients solve investment problems. The Portfolio Research team is responsible for developing value-added recommendations to drive portfolio performance and improve client outcomes.

Laura is an internationally published academic with papers appearing in 'The Journal of Portfolio Management' and 'The Journal of Forecasting', among others.

Previously, Laura was Senior Vice President (Quantitative Research) and a member of the Australian senior management team at PIMCO. With 21 years investment experience, Laura's other roles include Manager of Quantitative Strategy at Commonwealth Bank, Quantitative Manager at AMP Capital and Lecturer in Statistics at the Australian National University (ANU).

Laura holds a Ph.D. in statistics from the ANU, a Master of Quantitative Finance from the University of Technology Sydney and an Honours degree in Actuarial Studies from the ANU.

Claire Smith – Alternatives Director, Schroders

Claire has worked in the finance industry for over 18 years. She joined Schroders in their London office in 2017 as an Investment Director for the infrastructure debt business. There Claire helped grow the business from €1bn of AUM to €4bn of AUM, growing the investor base from solely French-speaking clients to pan-European and Asian clients. In early 2020 Claire returned to Australia to help grow the local Private Assets business, mainly focussing on Schroders' semi-liquid private equity fund and building the newly formed private debt business.

Prior to Schroders, Claire worked in Macquarie's Infrastructure Debt Investment Solutions (MIDIS) business in London, both as COO and part of the Investor Solutions team, joining when the business had less than £500m of AUM and helping it grow to over £4.6bn of AUM during her three year tenure.

Prior to MIDIS, Claire structured, launched and was Portfolio Manager for Macquarie's Significant Investor Visa suite of funds, and Co-Portfolio Manager for Macquarie's Dividend Run-Up Fund. She also held management and structuring responsibility for a range of derivatives-based products within Macquarie's capital protected and limited recourse fund and instalment warrants businesses.

Claire started her career as an Analyst in Macquarie's Banking and Property Group, where she was part of a three person team responsible for monitoring a portfolio of A$25bn of mortgages and securitising A$5bn of mortgages per annum.

Claire holds a Bachelor of Economics from Macquarie University.

Rose Thomas, CFA – Vice President, J.P. Morgan Asset Management

Rose Thomas is a portfolio manager in the Macro Strategies team at J.P. Morgan Asset Management, based in London. An employee since 2014, Rose focuses on the Eurozone at a macro level and the healthcare sector from a bottom-up perspective. Rose also coordinates the team's efforts on sustainability and ESG.

Rose obtained a B.Sc. in Economics with Study in Continental Europe (French) from the University of Bristol and is a CFA charterholder.

The report was finalised on 28 February 2022.

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