

The events of the past few weeks are a reminder how fragile markets and banking systems can be. The events also served as a reminder of the lengths central banks and financial regulatory authorities will go to, to ensure the system remains robust. The US Federal Reserve (the Fed) moved swiftly to insure the deposits of smaller banks while the Swiss Financial Market Supervisory Authority deemed it was necessary to reorder the investment hierarchy to ensure UBS's takeover of Credit Suisse. This could be the Ides of March, the deadline for settling debts in Rome. It is also associated with misfortune and doom.

Central banks are at an impasse, raising rates to fight inflation, while creating liquidity to ensure banking systems. Markets too, are at an impasse. Long-term rate expectations have fallen, but recessionary risks have increased.

Last quarter we posited that equity investors don't seem to have received the age-old memorandum, 'don't fight the Fed'. The yield curve remains inverted, a widely regarded indicator for a recession, yet equities have been holding up. Now bond markets are fighting the Fed too. The Fed is saying no rate cuts in 2023. Not so bond investors, the expected three-month T-bill rate in 18 months' time dropped to a nadir below the previous record. This was in January 2001, about two months before the US economy fell into recession.

Ultimately, you 'don't fight the Fed'. Remember, a pivot is in response to an economic slowdown. If the slowdown is a hard landing, risk assets do not have a strong track record pricing a recession. With the exception of the two 1970's bear markets, recession-driven bear markets rarely start more than six months before the recession starts. This could be the most anticipated period of equity market weakness that the market hasn't positioned for.

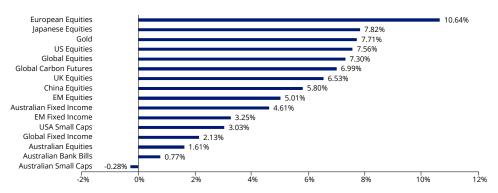
Heading into 2023, consensus thinking seemed to be that we were one piece of good news away from a Fed pivot. Yet, equities rallied in January with no major news as a catalyst. It seemed that there was a surge of money supply globally at year-end that offset the Fed's tightening. However, those forces—US Treasury buying of bonds, Japan QE, China money supply growth—are unsustainable.

Market movements subsequent to January reflect this. Over the quarter, the safe haven asset, Gold has rallied. International equities, led by Europe and Japan have had strong quarters. Sectors driving this global equity performance were IT, telecommunications and consumer discretionary.

We continue to think investors should focus on liquidity, focus on balance sheets and cash flow and avoid highly volatile and speculative assets. We continue to see support for gold. Asset allocation has come back to the fore, as prudent investors focus on what can go wrong, rather than to attempt to forecast what might go right. Risk management is everything. Liquidity will be key to take advantage of opportunities that present themselves.

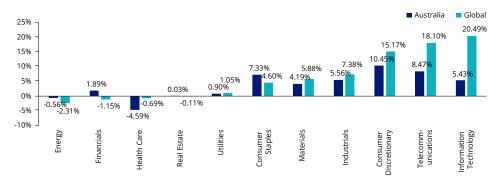
"At heart, 'uncertainty' and 'investing' are synonyms." Benjamin Graham

Chart 1: Mainstream asset class returns for the quarter



Source: Bloomberg, 31 December 2022 to 29 March 2023, returns in Australian dollars. Global Carbon Futures is ICE Global Carbon Futures Index, US Equities is S&P 500 Index, International Equities is MSCI World ex Australia Index, European Equities is MSCI Europe Index, UK Equities is FTSE 100 Index, Australian Equities is S&P 4SX 200 Accumulation Index, Australian Small Caps is S&P/ASX Pand Income is Bloomberg Australian Small Caps is S&P/ASX Pand Income is Bloomberg Australian Small Caps is S&P/ASX Pand Income is Bloomberg Australian Small Caps is S&P/ASX Pand Income is Bloomberg Australian Small Caps is S&P/ASX Pand Income is Bloomberg Australian Small Equities is CSI 300 Index, Global Fixed Income is Bloomberg Australian Small Bill is Bloomberg Australian Equities Income is Bloomberg Australian Small Equities Income is 50% J.P. Morgan Emerging Market Bond Index Global Diversified Hedged AUD and 50% J.P. Morgan Government Bond-Emerging Market Index, Global Diversified, EM Equities is MSCI Emerging Markets Index, Japanese Equities is Nikkei 225 Index. Past performance is not a reliable indicator of future performance.

Chart 2: Global and Australian equity sectors quarterly performance



Source: Bloomberg, 31 December 2022 to 29 March 2023, returns in Australian dollars. Utilities is MSCI World Utilities Index / S&P/ASX 200 Utilities Index, Industrials is MSCI World Industrials Index / S&P/ASX 200 Materials Index, Consumer Staples index, Consumer Staples Index, Consumer Staples Index / S&P/ASX 200 Consumer Staples Index, Sepressionary is MSCI World Consumer Discretionary Index / S&P/ASX 200 Consumer Discretionary Index, Financials is MSCI World Financials Index / S&P/ASX 200 Financials I

An asset crisis, not a credit crisis, yet

Over a decade of free money and soaring leverage was never going to end without consequences. While markets argued about hard or soft or no landings, investors worried about the amount of leverage in the financial sector, concerned it would break before the real economy did.

Recent weeks have seen a couple of high-profile bank failures, and plenty of hysteria. The canary has been sent down the coal mine.

Confidence losses can be self-fulfilling, especially where bank runs are concerned. Markets can also be self-serving. If they see an opportunity to force a policy payday, be it a return to cheap money or a government handout, they will have no compunction about forcing it.

Nonetheless, neither Silicon Valley Bank nor Credit Suisse look like the sort of systemic blow-ups that will signal the end of the financial cycle. Both look like idiosyncratic examples of woeful risk control and poor management. The former case, too little attention to a narrow, correlated deposit base coupled with poor interest rate hedging. In the latter, a series of terrible, costly, poor credit decisions.

In other words, in both cases, the trifecta of financial failure: leverage, hubris and other peoples' money.

Of course, if markets continue to panic, or exploit fears to create the impetus for authorities to act, we could still see more bank runs. But this is more like Long Term Capital Management (LTCM) in 1997 than Lehmans in the Global Financial Crisis (GFC).

A little history, LTCM was a 1990s hedge fund started by kings of the US bond market and Nobel Prize winners. It used huge leverage, provided by Wall Street banks, to exploit tiny anomalies in market pricing. A classic "pennies in front of the steamroller" strategy.

In 1997, when it all went wrong, the Fed was forced to cobble together a rescue package, including almost all of Wall Street's banks, lest the US Treasury market implode. All well and good but, in the panic, the Fed also swung back to easing – despite a clearly late-cycle economy.

The extra fuel on the fire saw the economy and markets accelerate, in turn leading to the blow-off and crash of 2000. The proxy for activity we've used is retail trade.

Approaching this crisis, we were pleased to see the Fed's actions in late March, even though the market is more sceptical.

Chart 3: So far, the Fed is treating this more like LTCM than GFC

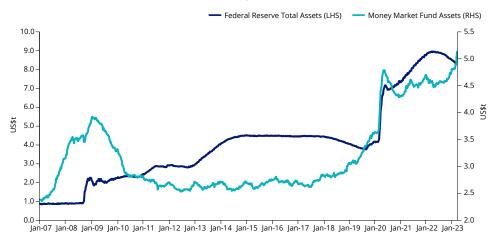
The Fed has learnt its reaction to LTCM, cutting rates, can end in tears



Source: Federal Reserve Bank of St. Louis.

Chart 4: Investors going into money market funds

Total assets of Federal Reserve and US Money Market Funds



Source: Bloomberg, FRED, ICI.

Monetary policy is for monetary policy

The lesson of the past few weeks: there are banking and liquidity instruments to deal with stability problems. Monetary policy should be preserved for macroeconomic cycle management.

There is a delicious irony of deposits that have moved from banks to money market funds given funds fleeing money market funds was one of the first harbingers of the 2008 crisis. Irrespective, money market effectively flows to the Government/Fed via short term securities purchases. This time the Fed has effectively recycled the money back to the banking sector via term funding, the discount window and foreign swap lines.

Fed Chair Powell has so far held his nerve in the face of markets pushing, yet again, for a free feed via the craved pivot. For that, so far, he should be commended.

The Fed's latest outlook, despite banking woes and a best guess at related credit tightening, is actually marginally more hawkish than its December projections.

Growth forecasts are markedly lower for the rest of this year and next, while there is little change in inflation or unemployment forecasts. Rates stay a little higher for longer despite the weaker outlook.

Indeed, with Q1 GDP currently tracking at a 3% seasonally adjusted annual rate, the Fed is now projecting negligible-to-negative growth for the rest of the calendar year. And cash still finishing the year at 5.1%. This means the hurdle for a pivot is high, a hurdle, we think of deep recession proportions.

Despite this, markets continue to play Fight-the-Fed. With Fed Funds expected at 5.1% at the end of this year and 4.3% at the end of next, a 2-year bond below 4% does not make sense.

Markets therefore are hoping the Fed is keeping its cards close to its chest or is off the mark.

For rates markets to be right, the economy has to fall sharply out of bed, either due to some kind of financial crisis or a sudden, autonomous downturn.

These are possible. Ahead of recent banking events, markets were split between hard and soft-landing camps. Ahead of bank woes, a no-landing scenario was also gaining followers. The last scenario is hardest to fathom, it's also known as The 'Immaculate Disinflation' scenario, that is, inflation disappears from an economy running above full employment.

Chart 5: The Fed is sticking by 5.1% at year end, 4.3% end of next year

Fed Economic projections, March 2023

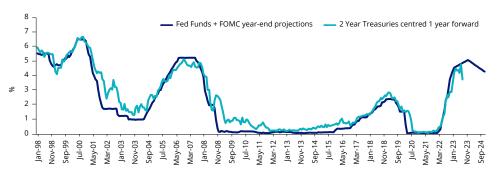
Variable ·	Median ¹				
	2023	2024	2025	Longer run	
Change in real GDP	0.4	1.2	1.9	1.8	
December projection	0.5	1.6	1.8	1.8	
Unemployment rate	4.5	4.6	4.6	4.0	
December projection	4.6	4.6	4.5	4.0	
PCE inflation	3.3	2.5	2.1	2.0	
December projection	3.1	2.5	2.1	2.0	
Core PCE inflation ²	3.6	2.6	2.1		
December projection	3.5	2.5	2.1		
Federal funds rate	5.1	4.3	3.1	2.5	
December projection	5.1	4.1	3.1		

Source: US Federal Reserve. Note: Projections of change in real gross domestic product (GDP) and projections for both measures of inflation are percent changes from the fourth quarter of the previous year to the fourth quarter of the year indicated. PCE inflation and core PCE inflation are the percentage rates of change in, respectively, the price index for personal consumption expenditures (PCE) and the price index for PCE excluding food and energy. Projections for the unemployment rate are for the average civilian unemployment rate in the fourth quarter of the year indicated. Each participant's projections are based on his or her assessment of appropriate monetary policy. Longer-run projections represent each participant's assessment of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy. The projections for the federal funds rate are the value of the midpoint of the projected appropriate target range for the federal funds rate or the projected appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. The December projections were made in conjunction with the meeting of the Federal Open Market Committee on December 13–14, 2022. One participant did not submit longer-run projections for the change in real GDP, the unemployment rate, or the federal funds rate in conjunction with the December 13–14, 2022, meeting, and one participant did not submit such projections in conjunction with the March 21–22, 2023, meeting.

- 1 For each period, the median is the middle projection when the projections are arranged from lowest to highest. When the number of projections is even, the median is the average of the two middle projections.
- 2 Longer-run projections for core PCE inflation are not collected.

Chart 6: Treasuries rallying too far, too early

Federal Funds Effective Rate versus 2-year US Treasuries yield



Source: Federal Reserve Bank of St. Louis.

The experience of inflation

As expected, goods sector inflation has been falling. But the bulk of the basket is services, and the bulk of services inflation is based on wages. It strikes us as ridiculous that consensus can effectively price a magical tail scenario as if it's a central case. Hope is not a strategy, a downturn is probable.

That is, the highest probability case is a US recession from around mid-year, accompanied by credit woes. However, it is possible that the US economy can skate through and only experience a shallow slowdown/recession accompanied by a long, slow disinflation process, or even a de facto raising of the inflation target.

Despite some 'Pollyanna-ish' hopes, a higher inflation target is not cost-free. It would be accompanied by higher nominal interest rates. The range of interest rates over the next cycle is unlikely to be as low as the last cycle.

Perhaps in reaction to the economy's resilience to date, the Fed appears to be drifting in that direction too, its long run rate expectations have crept marginally higher.

How resilient the economy remains to higher rates leads to another medium-term debate: what is the neutral real rate of interest? The neutral rate is also known as r-star.

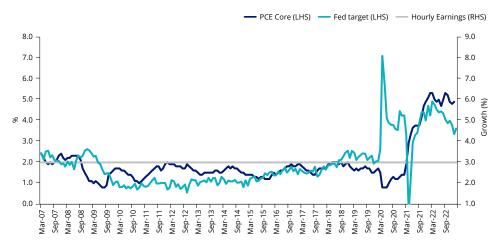
Although it sounds a pretty dry topic, it's anything but. A lower neutral rate over the 2010s meant that low rates did little to stimulate a strong recovery. Factors that determine r-star include productivity, and savings and investment behaviour including demographics.

One could suspect that re-onshoring, energy transition to renewables and increasing defence spending will all push investment and hence the neutral rate higher. A 2% neutral rate (marginally above trend real growth) plus a 2% inflation target and 0.5% term premium gives a neutral 10 year rate of 4.5%.

Yet markets want to rally 10 years, even in the teeth of a tightening cycle, on the basis that 3.5 to 4% is "cheap". This could be a classic example of recency bias: investors are comparing yields to where they have recently come from, not to what represents fair value.

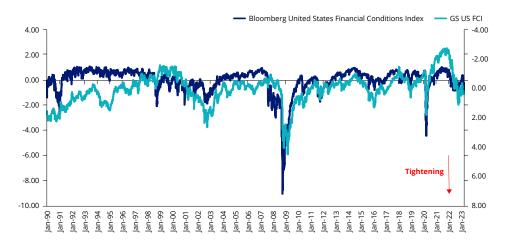
Chart 7: Inflation sticky, wages receding but still too high

Personal Consumption Expenditure (PCE), Fed target and wages



Source: Bureau of Economic Analysis, Federal Reserve Bank of St. Louis

Chart 8: There's nothing like a banking crisis to tighten financial conditionsUS Financial conditions indices



Source: Bloomberg, Goldman Sachs.

Illiquidity could be the culprit

We think investors should be focused on liquidity.

It's possible, if there is a crisis, it comes from a credit event, with the most likely culprits being illiquid, insufficiently marked-to-market assets: commercial real estate and private equity, both of which have been deluged with cheap money over the decade,

According to McKinsey's recently released Global Private Markets Review 2023, total assets under management across private markets reached US\$11.7 trillion as of June 2022. To put this into context, the MSCI ACWI Index, which captures large- and mid-cap representation across 23 developed markets and 24 emerging markets countries, represents a market capitilisation of approximately US\$58 trillion.

The case for private market assets is compelling. It offers a liquidity premium, that is the potential for a return premium in exchange for less liquidity. Private markets are generally the domain of sophisticated, large institutional investors who have the expertise and scale to match their asset/liability framework.

Over the last few years all types of investors have gravitated towards private markets under the pretense of higher return premiums but also lower volatility. Although lower than the previous year, 2022 fund raising efforts in private markets totaled US\$1.2 trillion. But at what cost.

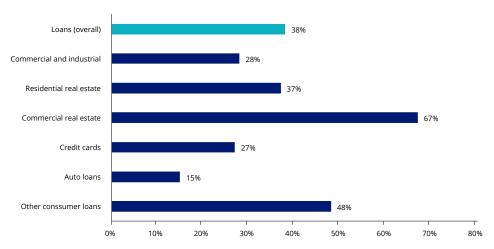
Private markets don't have to reflect the volatility of public markets until they do.

There are numerous examples where private market asset valuations do not reflect public market realities. The catalyst can be a liquidity crunch. Liquidity risk should not be understated. It should be front and centre for investors because liquidity can dry up suddenly and can be a problem in a real extended bear market.

It's possible that the re-distribution of banks deposits from regional banks to systemically important banks may squeeze commercial real estate funding. Investors should be keeping a careful eye on them.

Chart 9: US small lenders

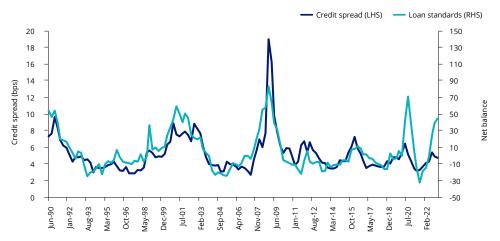
US small and medium-size banks' share of all outstanding loans, by type



Source: Federal Reserve. Note: Small and medium-size banks are domestically chartered banks that are smaller than the top 25 US lenders.

Chart 10: Lending standards just became tighter

Bank lending standards and high yield credit spread



Source: Bloomberg, Bank of America. Credit spread is ICE BofA US High Yield Index - spread to 10-year Treasury. Loan standards is US C&I Loan Survey – Large and medium firms.

Hope everlasting

While rates markets try to anticipate the direction of the economy, equity markets have not moved as far.

Albeit, the S&P 500 earnings per share (EPS) has started falling, and further modest falls are expected in Q1 and Q2. But analysts' expectations are still for earnings to finish 2023 higher, despite the fact we haven't even reached the slowdown yet.

The US economy was supposed to slow in H2 2022, then H1 2023. We are now halfway through H1 2023 and, if anything, growth numbers are surprising to the upside.

Certainly, the labour market continues to run far above the sustainable, both in level terms, i.e. compared to unemployment rates usually associated with decelerating wages of 5% to 6%, and in growth terms (labour supply growth is likely around 100 to 150k jobs a month).

Therefore, if the deep slowdown/recession is now scheduled for H2 2023, it is optimistic for analysts (aggregated in FactSet) to be projecting EPS growth of over 20% over the same time period.

Either equities fall, or price-to-equity (P/E) ratios soar back to all-time highs. But even with a deep recession, we suspect the world is done with zero rates and quantitative easing.

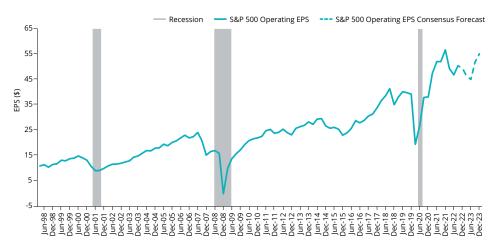
Of course, the Fed balance sheet in recent weeks has unwound a fair chunk of quantitative tightening. But that is simply going to keep bank balance sheets liquid, it is not a new source of liquidity. And it will be allowed to roll off as banks and deposits stabilise.

All of this suggests to us, yet again, that rewards to risk are scanty. Into a recession it's important that investors remain well diversified, focusing on strong balance sheets and cash flows.

For the first time in a long time, cash is rewarding investors, and gold, and its miners, may continue to shine.

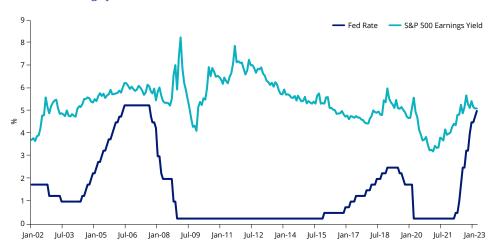
Chart 11: Analysts' expectations for EPS bounce into a potential hard landing is optimistic

S&P 500 operating EPS and recessions



Source: FactSet, VanEck. Recessions in gray.

Chart 12: TARA (There Are Reasonable Alternatives) is back, supplanting TINA S&P 500 Earnings yield and Fed Fund Rate



Source: Bloomberg

Gold - debt and higher rates

Gold has been playing "beach ball under water", held down by rising US real rates. But geopolitics, crypto uncertainty, and now financial fears are turbo-charging it.

Of these factors, we believe geopolitics is a secular support. The retreat of globalisation, the rise of aggressive blocs of nations and the weaponisation of banking and payment systems has seen a fracturing of the US dollar consensus. In turn, central bank gold purchases have been rising sharply.

The recent movements in yields have also been supportive of gold. In the previous three instances when the short end of the US curve fell from its peak, gold prices rose for a sustained period.

Another factor supporting gold, as a safe haven asset, is the continued volatility in markets, which the recent banking crisis has worsened.

The market is ignoring the negative effect of sustained higher rates on the global financial system. Interest expense will become a significant problem as record levels of debt across the globe are impacted by higher rates. This increasing debt burden, combined with an economic slowdown and sticky, elevated inflation are supportive of gold prices in 2023 and longer term.

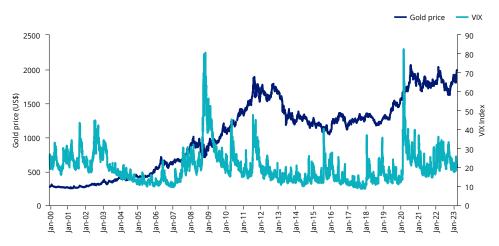
Chart 13: This could be the start of a sustained rally for the gold price US 2-year Treasuries and the price of gold



Source: Bloomberg.

Chart 14: The gold price has exhibited positive correlation to the volatility index (VIX)

VIX and the gold price



Source: Bloomberg.

The end of ZIRP

The Bank of Japan (BoJ) expanded its balance sheet by US\$614 billion since the start of December 2022, far outstripping other quantitative tightening, which was US\$357 billion by the Fed, ECB, and the Bank of England.

With an outsider appointed as BoJ Governor, well, not entirely an outsider, but at least someone not of the Abenomics era, there is an opening for an end to Japan's zero interest rate policy (ZIRP).

With inflation back, the next step was a positive Shunto wage round (inflation without nominal wage growth is unsustainable). With 3% wages growth targeted, as a minimum to sustain the end of zero inflation, the BoJ would be pretty pleased with a 3.8% outcome.

An end to ZIRP should see a sharp recovery in the yen. At the same time, Japanese equities remain cheap to Japanese government bonds (JGBs). While a rising currency will pressure foreign earnings (in JPY terms) and JGB yields are unsustainably low, Japanese equities currency unhedged remain a favourite trade idea.

It is also worth noting that Japan exiting ZIRP should see money flows back to Japan, out of US Treasuries. This is a potential problem for the US Government's ongoing deficit funding issues especially given geopolicitical tensions with its other largest funder, China.

Chart 15: The Bank of Japan would be pleased with this outcome

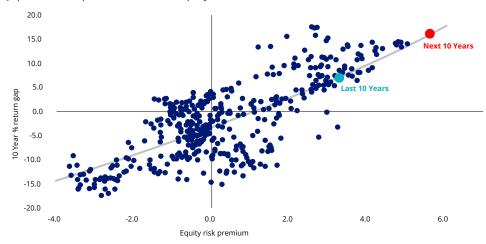
Japan Household Income vs Headline CPI



Source: Bank of Japan.

Chart 16: Rewards for risk in Japan

Japan relative price and relative equity-bond return



Source: MSCI, Cabinet Office, Bloomberg. Equity Risk premium is equity yield (CAPE inverted) minus real JGB yield. Data from 1980. The return gap is the gap between average annual equity and bond total return series over 10 years.

China to roar

China's post-pandemic rebound is a major part of this year's global market narrative, but certain aspects of this story can have a much longer shelf life than quarterly GDP numbers. China is now arguably a more important global "anchor" for some emerging markets (EM) than the US Federal Reserve, and China's geopolitical clout is a force to reckon with.

Recovery is finally gaining pace: China's surprising reopening spurred a major rally at the end of last year and in early-2023. However, the actual data flow remained unconvincing at first, and investors started to demand "proof of life". China's latest activity indicators gave reasons to be more optimistic. All PMIs (Purchasing Managers Indices) improved significantly last month, with the vast majority being in expansion zone now – not only services and manufacturing, but also the new export orders and small companies PMIs. The construction PMI shot above 60, pointing to the on-going infrastructure push, but also a signal that the housing sector might be getting more "alive". China's economic surprise index reached the highest level since 2006, outpacing both EM peers and developed markets (DM) counterparts, and China's growth forecast for 2023 has been upgraded to 5.3%.

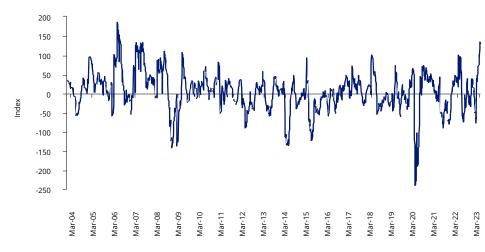
Consensus growth forecast is higher than the surprisingly conservative growth target of around 5% set up by the National People's Congress (NPC). China's new economic team, which looks fairly pragmatic, believes the target can be achieved using the policy framework that is comparable to the last year's (the adjusted budget deficit, local government special bond quota – also with adjustments), presumably in order not to overstimulate the economy, but also, perhaps, as an acknowledgement that reinvigorating the housing sector might take time.

There were no major policy surprises from the annual plenary sessions of the National People's Congress and of the Chinese People's Political Consultative Conference, known as 'two session' in this regard, but we definitely keep an eye on developers' progress in raising capital (including share placements), as well as Evergrande's debt restructuring progress. The most important thing is that Evergrande has finally released its offshore debt term sheets, which might become a template - and a catalyst - for other developers.

In regards to the GDP growth target, while growth is important, the government needs to balance out other policy objectives such as financial stability. Looking at the previous years of economic goal setting (excluding 2020 with no goal set, and 2021 and 2022 COVID underperformance), since 1996, 75% of the time growth was under-promised, but over-delivered.

Chart 17: Proof of life?

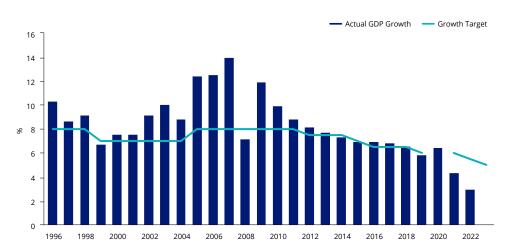
China economic surprise index



Source: Bloomberg.

Chart 18: China's authorities have a history of under-promising and over-delivering

GDP targets versus actual GDP results



Source: Bloomberg

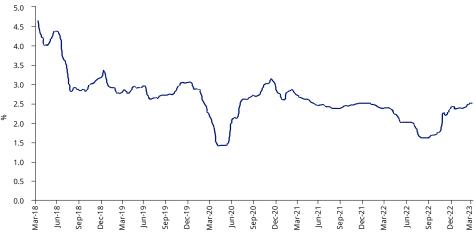
China's new economic team seems to be focusing on many qualitative issues, including the health of private companies, attracting more FDI, and moving the economy up the value chain. So, how does China's 25 basis points cut in the reserve requirements for banks fit into the equation? The cut per se was not entirely unexpected. China's short rates have been grinding higher for some time now, which is not an ideal backdrop for the nascent recovery. Further, the move was small enough not to contradict the State Council's "supportive yet restrained" policy objectives. But the timing points to external reasons as well – the RRR cut came after a major banking debacle in DM, suggesting that was risk prevention played a part.

Faster growth, wider implications: It remains to be seen whether China's GDP will rebound to 5% or more this year, but one thing is clear – China is accelerating and will grow much faster than any advanced economy, especially with new DM headwinds stemming from tighter credit conditions and banking stresses. Many EMs are now arguably more correlated with China – especially in Asia – and this factor might have helped to shield them from market contagion in March. If the improving growth differential between China and DM/US also translates into the improving interest rate differentials, the renminbi should be expected to benefit in the coming months (provided there are no balance of payments surprises, of course).

China's reopening, President Xi's third term, and major changes among top-level personnel "enlivened" the global geopolitical scene. China's renewed tensions with the US, the country's reported role in "rapprochement" between two major energy players (Saudi Arabia and Iran), and President Xi's "change is coming" visit to Russia - a few recent developments that should not be underestimated. Our long-standing argument is that new geopolitical alignments can favor many EMs – especially in regards to energy re-orientation and commodity prices. A longer-term prospect of EMs playing China against the US is another important angle, which should keep discussions about the rise of the renminbi in international payments and the eventual descent of the petro-dollar on the front burner.

Chart 19: China's short term rates had been grinding higher

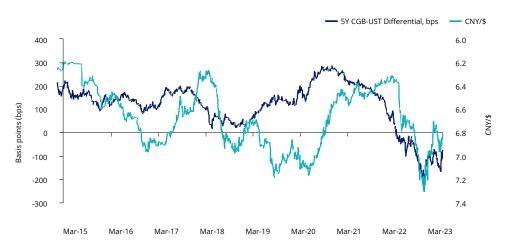
China's 3M SHIBOR Fixing (%)



Source: Bloomberg.

Chart 20: The renminbi could do well in the coming months

CNY/\$ and CGB-UST Differential, bps



Source: Bloomberg.

Emerging markets are thriving, not surviving

During the quarter some emerging markets currencies exhibited signs of a safe haven, given the uncertainty over the US and European financial systems. As every crisis is a test, many emerging markets are thriving. The reaction of key EM currencies in the three days following Fed Chair Powell's 21 March presser which catalysed a lot of crisis concerns was that almost every key EM local currency was stronger.

The market is connecting-the-dots on the implications of the current crisis, and there are two, the attractiveness of EM bonds and the unattractiveness of DM bonds. Money will flow from one to the other. EMs generally have low debts and deficits, independent central banks solely focused on inflation, and benefit from China's reopening and are well-supported commodity prices.

Remember too, EM central banks were generally ahead of the curve and hiked more and earlier than DM, meaning their rates can decline significantly there or pay high carry during the turbulence. Other factors support of include the benefit from strong demand for their exports, and their financial systems are much less leveraged than DM financial systems.

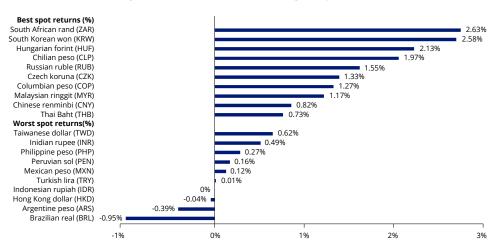
In a world running from unsafe finance to safe finance, EM banks are generally depositfunded, not loan-funded, and have high common equity-to-assets ratios.

In regards to inflation, even EM's "problem child", Brazil sports 13% rates and 5% inflation.

Geopolitics too are aligned in favour of EM. Sanctions on Russia's reserves have made US treasuries (and JGBs and eurozone bonds) a questionable reserve asset for any country potentially on the wrong side of the US. China has already reduced its treasury position by about a third, and much of this was before Russian sanctions. We expect most central banks to downgrade US treasuries as a reserve asset. What will replace them, other than gold, which is an obvious first-choice for central banks? Potentially EM local currency bonds. A key geopolitical event in the past month was China and India's agreement with Saudi Arabia and the UAE to pay for their oil in rupee and yuan. This is not just a source of demand for currency, the Saudi and UAE central banks have no choice but to buy Indian rupee and China yuan bonds as reserve assets, just as they did following the 1970s petrodollar agreement with Saudi. This is a key development that maps directly to central bank demand for EM debt as a reserve asset. Geopolitical risk that favours EM is much more than the supply risk commodity prices have in this new setup – central banks will have no choice but to diversify reserves.

Chart 21: New safe havens?

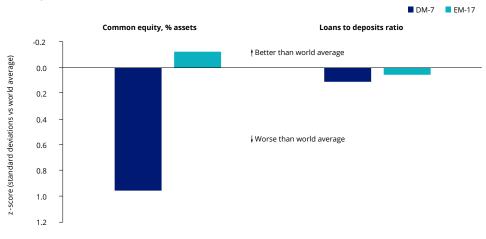
EM currencies following Fed's Powell March 22 meeting and presser



Source: Bloomberg, 21 March 2023 to 23 March 2023.

Chart 22: Financial systems less leveraged than developed markets

Leverage ratios of EM and DM



Source: VanEck, IMF.

Australia's mortgage phony war

Back in Australia, relatively, very little seems to be going on. And that suits the RBA.

The consumer is subdued, if not yet struggling, with remaining COVID savings offsetting a hit to real wages. The housing market is trying to get up off the deck, and the labour market remains tight.

Different wages measures are telling different stories, but none of them are flashing red: the state of labour laws, including the time required to force through new agreements, means that the RBA has time to watch and wait, now that they've unwound ludicrously low rates.

And that's just as well, Australia is currently in the middle of a mortgage rate phony war. Over the next six months, fixed rate mortgages (taken at the ultra-low rates around 2%) will roll off, resetting to a variable rate of 5% to 6% plus.

Around 20% of mortgages will be affected, with repayments on an average mortgage rising by \$2,000 to \$3,000 a month, depending on how much the mortgage holder can haggle.

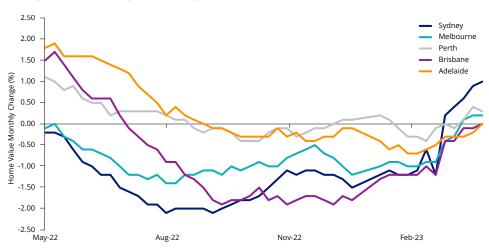
So the major hit from monetary policy is yet to arrive. And it will be concentrated on those who took out mortgages in 2021/22. Worryingly, this cohort will have the least capital gains to fall back on, and likely less COVID era savings, on top of that they have had less time to have "gotten ahead" on repayments.

Overall, banks have been surprised at how well their mortgage books have performed. The nightmare scenario remains, though, that the bulk of mortgage holders and consumers will be fine, indeed, see nascent housing recovery, a minority (still sizable) may end up in deep trouble.

The RBA is lucky to have the scope to watch and wait.

Chart 23: Trying to get up off the deck

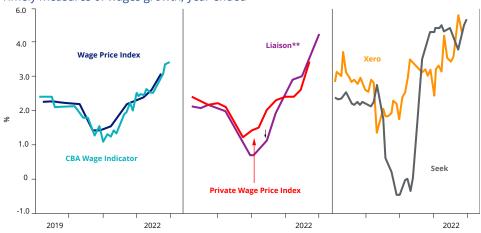
Rolling four-week change in dwelling values since first rate hike



Source: Bloomberg, CoreLogic.

Chart 24: The RBA will be watching wages growth

Timely measures of wages growth, year ended



Source: RBA, CBA, SEEK.

VanEck's range of Exchange Traded Funds on ASX

Equity opportunities

Australian Broad Based Australian Equal Weight ETF Australian Equal Weight Lindex Australian Boands ETF Australian Septor Australian Broads ETF Australian Banks ETF Australian Sustralian Equal Weight Lindex Australian Sustralian Equal Weight Lindex Australian Banks ETF Australian Banks ETF Australian Banks ETF Australian Sustralian Searce Australian Sustralian Sustralian Equity ETF BSG International Sustralian Sustralian Equity ETF BSG International Sustralian Sustralian Equity ETF BSG International Sustralian Sustralian Equity ETF GRAN MSCI Australian Sustralian Select SRI Screened Index MSCI International Quality Edge-gli ETF GNAL MSCI World ex Australia Quality Index MSCI International Small Companies Quality ETF GSML MSCI World ex Australia Quality Index MSCI International Small Companies Quality ETF GSML Morningstar Method Moat ETF GSML Morningstar International Wide Moat ETF GSML Morningstar Mide Moat Explain Science Lindex GSML Morningstar Wide Moat Explain Science Lindex GSML Morningstar Mide Moat Explain Scie	VanEck ETF	ASX code	Index Managem	ent fees (% p.a.)*
Australian Small and Mid Companies Small Companies Masters ETF MYS S&P/ASX MidCap ETF AVE S&P/ASX MidCap ETF AVI Australian Property ETF Australian Banks ETF MYA MYIS Australian A-REITs Index 0,3% Australian Banks ETF MYB MYIS Australian Besources ETF MYB MYIS Australian Besources Index 0,28% Australian Sustainable Equity ETF MYR MYIS Australian Resources Index 0,35% Sustainable Funds MSCI International Sustainable Equity ETF GRNV MSCI Australian MSCI Indemain Sustainable Equity ETF GRNV MSCI Australian MSCI Indemain Sustainable Equity ETF GRNV MSCI International Quality ITF GRNV MSCI International Quality ITF GRNV MSCI International Quality ITF GRNV MSCI International Ouality ITF GRNV MSCI International Mide Moat ETF GRNV MSCI International Mide Moat ETF GRNV MOST Morningstar International Wide Moat ETF GRNV MOST Morningstar Mide Moat ETF MOAT Morningstar Wide Moat Forcus NR AUID Index MSCI International Value ETF TULE MSCI Mordie x Australia Pering Markets ex Australia Wide Moat Focus Index 0,49% MSCI International Value ETF EMKT MSCI Mordie x Australia Pering Markets Multi-Factor Select Index 0,49% MSCI International Value ETF EMKT MSCI Mordie x Australia Pering Markets Multi-Factor Select Index 0,69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Mordie x Australia Pering Markets Multi-Factor Select Index 0,69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0,69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0,69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0,69% MSCI Mordie X-Australia Rental Index AUD Index 0,79% MSCI Indemain Index MSCI Mordie X-Australia Rental Index AUD Index 0,79% MSCI Indemain Index MSCI Mordie X-Australia Rental Index AUD Index 0,79% MSCI Ind	Australian Broad Based			
Small Companies Masters ETF MVS SRP/ASX MidCap ETF AVY SRP/ASX MidCap ETF AVY Australian Sector Australian Property ETF AVY Australian Property ETF AVY Australian Banks ETF AVY Australian Resources ETF AVY Australian Resources ETF AVY MVS Australian Resources ITF AVY Australian Sustainable Equity ETF AVY Australian Sustainable Equity ETF AVY AUSTRAIN SUSTRAIN	Australian Equal Weight ETF	MVW	MVIS Australia Equal Weight Index	0.35%
S&P/ASX MidCap ETF NVE S&P/ASX MidCap 50 Index 0.45% Australian Property ETF NVA MVIS Australia A-REITs Index 0.25% Australian Property ETF NVA MVIS Australia A-REITs Index 0.25% Australian Resources ETF NVA MVIS Australia Banks Index 0.25% Australian Resources ETF NVA MVIS Australia Banks Index 0.25% Sustainable Funds VIS Australia Resources Index 0.35% MSCI Australian Sustainable Equity ETF SEGI MSCI World ex Australia Resources Index 0.55% International Sustainable Equity ETF SEGI MSCI World ex Australia Cuality Index 0.45% MSCI International Quality (Fredged) ETF CHAL MSCI World ex Australia Quality Index 0.45% MSCI International Quality (Fredged) ETF CHAL MSCI World ex Australia Quality 100% Hedged to AUD Index 0.45% MSCI International Seguinal Companies Quality ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.45% MSCI International Seguinal Companies Quality ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% MSCI International Wide Moat ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% MORININGSIAN International Wide Moat ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% MORININGSIAN International Wide Moat ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% MORININGSIAN International Wide Moat ETF CHAL MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% MORININGSIAN International Wide Moat ETF CHAL MSCI World ex Australia Chality 100% Hedged to AUD Index 0.55% MSCI Multifactor Emerging Markets Equity ETF MORINING M	Australian Small and Mid Companies			
Australian Sector Australian Property ETF Australian Banks ETF Avr Australian Resources Index Australian Resources Index Australian Resources Index Australian Resources Index Australian Sustainable Equity ETF BYR AUSC Australian Sustainable Equity ETF BYR AUSC Australian Sustainable Equity ETF BYR	Small Companies Masters ETF	MVS	MVIS Small-Cap Dividend Payers Index	0.49%
Australian Property ETF MVB MVIS Australia A-REITS Index 0.35% Australian Banks ETF MVB MVIS Australia Banks Index 0.28% Australian Resources ETF MVB MVIS Australia Resources Index 0.35% Sustainable Funds MSCI Australian Sustainable Equity ETF GRNV MSCI Australia IMI Select SRI Screened Index 0.35% MSCI International Sustainable Equity ETF ESGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index 0.55% International MSCI International Quality ETF QUAL MSCI World ex Australia Quality Index 0.40% MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality 100% Hedged to AUD Index 0.43% MSCI International Wilde Mode ETF QSML MSCI World ex Australia Guality 100% Hedged to AUD Index 0.55% Morningstar International Wilde Moat ETF QSML MSCI World ex Australia Small Cap Quality 150 Index 0.55% Morningstar Wide Moat ETF GOAT Morningstar® Wide Moat Focus Index™ 0.55% MSCI International Vide Moat ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI International Vide ETF VILUE MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% FTSE China AS0 ETF CETF FTSE China AS0 Index 0.69% MSCI Morningstar Wide Moat ETF Market Grader China New Economy Index 0.69% Global Sector CNEW MarketGrader China New Economy Index 0.45% Global Infrastructure (Hedged) ETF IFRA FTSE Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure S0/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF IFRA FTSE Developed Core Infrastructure S0/50 Index Hedged into AUD 0.52% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure S0/50 Index Hedged into AUD 0.52% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure S0/50 Index Hedged into AUD 0.52% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure S0/50 Inde	S&P/ASX MidCap ETF	MVE	S&P/ASX MidCap 50 Index	0.45%
Australian Banks ETF MVB MVIS Australia Banks Index 0.28% Australian Resources ETF MVR MVIS Australia Resources Index 0.35% Sustainable Funds MSCI Australian Sustainable Equity ETF GRNV MSCI Australia IMI Select SRI Screened Index 0.55% MSCI International Sustainable Equity ETF ESGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index 0.55% International Quality ETF QUAL MSCI World ex Australia Quality Index 0.40% MSCI International Quality (Hedged) ETF QSML MSCI World ex Australia Quality Index 0.43% MSCI International Quality (Hedged) ETF QSML MSCI World ex Australia Quality 100% Hedged to AUD Index 0.55% Morningstar International Wide Moat ETF QSML MSCI World ex Australia Quality 100 Index 0.55% Morningstar Wide Moat ETF MOAT Morningstar* Developed Markets ex Australia Wide Moat Focus Index™ 0.55% Morningstar Wide Moat ETF MOAT Morningstar* Wide Moat Focus Index™ 0.55% MSCI International Value ETF MOAT Morningstar* Wide Moat Focus Index™ 0.49% MSCI International Value ETF MSCI International Value ETF MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% China New Economy ETF CETF FTSE China A50 Index 0.69% Global Sector GIONA NYSE Arca Gold Miners Index* (AUD) 0.53% Global Healthcare Leaders ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF IFRE International Property (Hedged) ETF FTSE ERRA Nareit Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE Elternational Property (Hedged) ETF FTSE ERRA Nareit Developed ex Australia Rental Index (AUD) 0.55% FTSE Goming and Esports ETF 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.55% 0.5	Australian Sector			
Australian Resources ETF MVR MVIS Australian Resources Index MCI Australian Sustainable Equity ETF GRNV MSCI Australian Sustainable Equity ETF ESGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index Ustrational MSCI Australian Sustainable Equity ETF ESGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index Ustrational MSCI International Quality ETF QUAL MSCI World ex Australia Quality Index 0.40% MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality Index 0.40% MSCI International Sunal Companies Quality ETF QSML MSCI World ex Australia Quality 100% Hedged to AUD Index 0.43% MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Small Cap Quality 150 Index 0.59% Morningstar Nicle Moat ETF MOAT Morningstar Nicle Moat ETF MOAT Morningstar Nicle Moat ETF MOAT Morningstar Wide Moat Focus Index MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% MarketGrader China New Economy Index CETF FTSE China AS0 Index CETF FTSE China AS0 Index O.59% MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.49% MSCI Multifactor Leaders ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% MSCI Beternational Property (Hedged) ETF FTSE EIPRA Nareit Developed Core Infrastructure to S0/50 Index Hedged into AUD 0.52% Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Australian Property ETF	MVA	MVIS Australia A-REITs Index	0.35%
Sustainable Funds MSCI Australian Sustainable Equity ETF GRNV MSCI Australia IMI Select SRI Screened Index 0,35% MSCI International Sustainable Equity ETF ESGI MSCI World ex Australia Expossil Fuel Select SRI and Low Carbon Capped Index 0,55% International Quality ETF QUAL MSCI World ex Australia Quality Index 0,40% MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality Index 0,43% MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Quality 150 Index 0,55% Morningstar International Wide Moat ETF QOAT Morningstar® Developed Markets ex Australia Wide Moat Focus Index™ 0,55% MSCI International Wide Moat ETF WOAT MSCI World ex Australia Enhanced Value Top 250 Select Index 0,49% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0,69% FISE China ASD ETF CETF FISE China ASD Index China New Economy ETF GOBA MarketGrader China New Economy Index 0,49% MarketGrader China New Economy Index 0,45% Global Healthcare Leaders ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0,45% TISE Global Infrastructure (Hedged) ETF FISE China ASD erre FISE PRA Nareit Developed Core Infrastructure 50/50 Index Hedged into AUD 0,55% Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and esports Index (AUD) 0,55%	Australian Banks ETF	MVB	MVIS Australia Banks Index	0.28%
MSCI Australian Sustainable Equity ETF ESGI MSCI World ex Australia Luality Index MSCI International Sustainable Equity ETF ESGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index NSCI International Suality ETF MSCI International Quality ETF QUAL MSCI World ex Australia Quality Index MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality Index MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Quality 100% Hedged to AUD Index MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Small Cap Quality 150 Index MSCI International Wide Moat ETF GOAT Morningstar Developed Markets ex Australia Wide Moat Focus Index MSCI International Value ETF MOAT Morningstar Wide Moat Focus NR AUD Index MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.60% FISE China A50 ETF CNEW MarketGrader China New Economy Index 0.45% Global Sector GOAD Miners ETF GDA NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF IFRA FISE Developed Core Infrastructure 50/50 Index Hedged into AUD Index NETSE Chemational Property (Hedged) ETF RETSE International Property (Hedged) ETF RETSE Chematical Property (Hedged) ETF RETSE EPPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Australian Resources ETF	MVR	MVIS Australia Resources Index	0.35%
MSCI International Sustainable Equity ETF SEGI MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index 0.55% International	Sustainable Funds			
International MSCI International Quality ETF QUAL MSCI World ex Australia Quality Index 0.40% MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality 100% Hedged to AUD Index 0.43% MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Small Cap Quality 150 Index 0.55% Morningstar International Wide Moat ETF GOAT Morningstar Poeveloped Markets ex Australia Wide Moat Focus Index™ 0.55% Morningstar Wide Moat ETF MOAT Morningstar Wide Moat ETF MSCI International Value ETF MSCI Unternational Value ETF MSCI Unternational Value ETF MSCI Unternational Value ETF MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.60% China New Economy ETF CETF FTSE China A50 Index CNEW MarketGrader China New Economy Index 0.55% Global Sector GOID Miners ETF GDX NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF HTM MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE International Property (Hedged) ETF FTSE Enternational Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	MSCI Australian Sustainable Equity ETF	GRNV	MSCI Australia IMI Select SRI Screened Index	0.35%
MSCI International Quality ETF QHAL MSCI World ex Australia Quality Index 0.40% MSCI International Quality (Hedged) ETF QHAL MSCI World ex Australia Quality 100% Hedged to AUD Index 0.43% MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Small Cap Quality 150 Index 0.59% Morningstar International Wide Moat ETF GOAT Morningstar® Developed Markets ex Australia Wide Moat Focus Index™ 0.55% Morningstar Wide Moat ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI International Value ETF VLUE MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% FTSE China A50 ETF CETF FTSE China A50 Index 0.69% China New Economy ETF Gold Miners ETF GOM WarketGrader China New Economy Index 0.55% Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure So/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF SPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	MSCI International Sustainable Equity ETF	ESGI	MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index	0.55%
MSCI International Quality (Hedged) ETF QSML MSCI World ex Australia Quality 100% Hedged to AUD Index 0.43% MSCI International Small Companies Quality ETF QSML MSCI World ex Australia Small Cap Quality 150 Index 0.59% Morningstar International Wide Moat ETF GOAT Morningstar® Developed Markets ex Australia Wide Moat Focus Index™ 0.55% Morningstar Wide Moat ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI International Value ETF WIUE MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.60% China New Economy ETF CETF FTSE China A50 Index CNEW MarketGrader China New Economy Index 0.55% Global Sector Gold Miners ETF GOAX NYSE Arca Gold Miners Index® (AUD) Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	International			
MSCI International Small Companies Quality ETF GOAT Morningstar International Wide Moat ETF MOAT Morningstar® Developed Markets ex Australia Wide Moat Focus Index™ 0.55% Morningstar Wide Moat ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI Undernational Value ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.60% China New Economy ETF CETF FTSE China A50 Index MarketGrader China New Economy Index 0.55% Global Sector Gold Miners ETF GDX NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MOAT MOAT Morningstar® Oveloped Markets ex Australia Aud Morningstar® Unidex 0.55% Morningstar® Wide Moat Focus NR AUD Index 0.46% 0.46% MSCI World ex Australia Small Cap Quality 150 Index 0.46% MSCI World ex Australia Small Cap Quality 150 Index 0.46% 0.46% 0.46% 0.60% CETF FTSE China A50 Index 0.60% 0.60% CETF FTSE China A50 Index 0.60% CETF FTSE	MSCI International Quality ETF	QUAL	MSCI World ex Australia Quality Index	0.40%
Morningstar International Wide Moat ETF Morningstar Wide Moat ETF Morningstar Wide Moat ETF Morningstar Wide Moat ETF Morningstar Wide Moat Focus NR AUD Index™ 0.49% MSCI International Value ETF WSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.60% CETF FTSE China A50 Index CNEW MarketGrader China New Economy Index Gold Miners ETF Gold Miners ETF GDX NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	MSCI International Quality (Hedged) ETF	QHAL	MSCI World ex Australia Quality 100% Hedged to AUD Index	0.43%
Morningstar Wide Moat ETF MOAT Morningstar® Wide Moat Focus NR AUD Index™ 0.49% MSCI International Value ETF MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% FTSE China A50 ETF CNEW MarketGrader China New Economy Index 0.69% Global Sector Global Sector Global Healthcare Leaders ETF MITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF IFRA FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	MSCI International Small Companies Quality ETF	QSML	MSCI World ex Australia Small Cap Quality 150 Index	0.59%
MSCI International Value ETF MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% FTSE China A50 ETF CETF FTSE China A50 Index 0.60% China New Economy ETF Global Sector Gold Miners ETF GDX NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE International Property (Hedged) ETF FTSE International Property (Hedged) ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI World ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Morld ex Australia Enhanced Value Top 250 Select Index 0.40% MSCI Mo	Morningstar International Wide Moat ETF	GOAT	Morningstar® Developed Markets ex Australia Wide Moat Focus Index™	0.55%
MSCI Multifactor Emerging Markets Equity ETF EMKT MSCI Emerging Markets Multi-Factor Select Index 0.69% FTSE China A50 ETF CNEW MarketGrader China New Economy Index 0.95% Global Sector Gold Miners ETF GDX NYSE Arca Gold Miners Index® (AUD) 0.53% Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Morningstar Wide Moat ETF	MOAT	Morningstar® Wide Moat Focus NR AUD Index™	0.49%
FTSE China A50 ETF China A50 ETF FTSE China A50 Index CNEW MarketGrader China New Economy Index O.60% Global Sector Gold Miners ETF Gold Miners ETF Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index O.45% FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD O.52% FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) O.55%	MSCI International Value ETF	VLUE	MSCI World ex Australia Enhanced Value Top 250 Select Index	0.40%
China New Economy ETF Global Sector Gold Miners ETF Gold Miners ETF Global Healthcare Leaders ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 7.526 FTSE Global Infrastructure (Hedged) ETF FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	MSCI Multifactor Emerging Markets Equity ETF	EMKT	MSCI Emerging Markets Multi-Factor Select Index	0.69%
Global Sector Gold Miners ETF Global Healthcare Leaders ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% HTSE Global Infrastructure (Hedged) ETF FTSE Global Infrastructure (Hedged) ETF FTSE International Property (Hedged) ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MARKETGRADER Global Miners Index® (AUD) 0.53% MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD 0.52% FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic	FTSE China A50 ETF	CETF	FTSE China A50 Index	0.60%
Gold Miners ETF Gold Miners ETF HITH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.53% FTSE Global Infrastructure (Hedged) ETF FTSE International Property (Hedged) ETF FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% FTSE Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	China New Economy ETF	CNEW	MarketGrader China New Economy Index	0.95%
Global Healthcare Leaders ETF HLTH MarketGrader Developed Markets (ex-Australia) Health Care AUD Index 0.45% FTSE Global Infrastructure (Hedged) ETF FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Global Sector			
FTSE Global Infrastructure (Hedged) ETF FTSE International Property (Hedged) ETF FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% Thematic Video Gaming and Esports ETF MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Gold Miners ETF	GDX	NYSE Arca Gold Miners Index® (AUD)	0.53%
FTSE International Property (Hedged) ETF Thematic Video Gaming and Esports ETF REIT FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged 0.43% MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	Global Healthcare Leaders ETF	HLTH	MarketGrader Developed Markets (ex-Australia) Health Care AUD Index	0.45%
Thematic Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	FTSE Global Infrastructure (Hedged) ETF	IFRA	FTSE Developed Core Infrastructure 50/50 Index Hedged into AUD	0.52%
Video Gaming and Esports ETF ESPO MVIS® Global Video Gaming and eSports Index (AUD) 0.55%	FTSE International Property (Hedged) ETF	REIT	FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged	0.43%
Video Garning and Esports En	Thematic			
Global Clean Energy ETF S&P Global Clean Energy Select Index 0.65%	Video Gaming and Esports ETF	ESPO	MVIS® Global Video Gaming and eSports Index (AUD)	0.55%
	Global Clean Energy ETF	CLNE	S&P Global Clean Energy Select Index	0.65%

VanEck's range of Exchange Traded Funds on ASX

Income opportunities

VanEck ETF	ASX code	Index	Management fees (% p.a.)*
Australian Equity Income			
Morningstar Australian Moat Income ETF	DVDY	Morningstar® Australia Dividend Yield Focus Equal Weighted Index™	0.35%
Fixed Income			
Australian Corporate Bond Plus ETF	PLUS	iBoxx AUD Corporates Yield Plus Mid Price Index	0.32%
Australian Floating Rate ETF	FLOT	Bloomberg AusBond Credit FRN 0+Yr Index	0.22%
Australian Subordinated Debt ETF	SUBD	iBoxx AUD Investment Grade Subordinated Debt Mid Price Index	0.29%
Global Income		Performance Benchmark	
Emerging Income Opportunities Active ETF (Managed Fund)	50% JPM EMBI Global Diversified Hedged AUD and 50% JPM GBI-EM Global Diversified		0.95%
Capital Securities		Index/Benchmark	
Global Capital Securities Active ETF (Managed Fund)	GCAP	RBA Cash Rate + 3% per annum	0.59%

Alternative opportunities

VanEck ETF	ASX code	Index	Management fees (% p.a.)*
Alternatives			
Global Listed Private Equity ETF	GPEQ	LPX50 Index	0.65%
Global Carbon Credits ETF (Synthetic)	XCO2	ICE Global Carbon Futures Index	0.45%
Gold Bullion ETF	NUGG	Tracks the price of gold	0.39%

Contact us

vaneck.com.au info@vaneck.com.au +61 2 8038 3300

- in VanEck-Australia
- VanEck_Au
- **f** VanEckAus
- VanEckAustralia

Important notice

VanEck Investments Limited (ACN 146 596 116 AFSL 416755) ('VanEck') is the issuer and responsible entity of all VanEck exchange trades funds (**Funds**) listed on the ASX. This is general advice only and does not take into account any person's financial objectives, situation or needs. The product disclosure statement (**PDS**) and the target market determination (**TMD**) for all Funds are available at <u>vaneck.com.au</u>. You should consider whether or not an investment in any Fund is appropriate for you. Investments in a Fund involve risks associated with financial markets. These risks vary depending on a Fund's investment objective. Refer to the applicable PDS and TMD for more details on risks. Investment returns and capital are not guaranteed

The Index Providers do not sponsor, endorse or promote the funds and do not guarantee the timeliness, accurateness, or completeness of any data or information relating to the indices or accept any liability for any errors, omissions, or interruptions of their index and do not give any assurance that the funds will accurately track the performance of their respective index. The indices and associated trademarks referenced herein are the property of the respective Index Provider and used by VanEck under license. See the relevant PDS for more detailed information on the indices and limited relationship that the Index Provider has with VanEck