

Realise that everything connects to everything else.

- Leonardo da Vinci

There is no doubt that the biggest influence on markets over the quarter has been Russia's invasion of Ukraine. Reaction from governments was swift (excuse the pun!). Sanctions included Russian banks banned from SWIFT and access to foreign currency reserves being cut-off.

The consequences of the conflict and subsequent sanctions flowed through to markets. Energy and commodities rose, as expected. Less predictable, the crisis at the London Metals Exchange (LME) on 8 March. The LME descended into chaos not seen since the Tin Crisis of 1985 when the price of Nickel went vertical, up 250% in 24 hours triggering billions of dollars of losses for traders who bet the wrong way. This forced the LME to suspend trading for the first time in over three decades and highlighted how the removal of one of the world's largest exporters of resources from the financial system has ripple effects across the world.

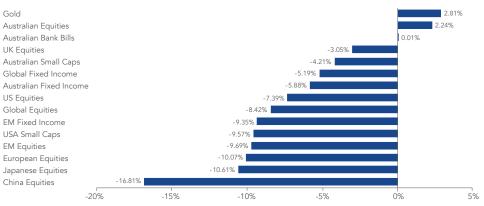
The other big news for markets in the quarter was the US Federal Reserve's (the Fed) rate rise. Equity markets seemingly cheered the 0.25% hike with an immediate rally. The Fed has ceased its quantitative easing program and it remains committed to rate rises into 2023. Rate rises however are a tool to fight demand-induced inflation. Supply-induced inflation, such as price rises stemming from the Russia/Ukraine conflict and COVID supply issues may mean the Fed is fighting a gunfight with a knife. Right now, they are saying the right things, but saying and doing are two different things. While in the past they may have faltered, we think this time they can go the distance.

In equities, at a sector level, both in Australia and offshore, it was all about energy. Amid wild swings, energy stocks reflected the oil price surging. On the other side of the spectrum, the movement in the long end of the curve did not bode well for information technology. Non-profitable technology continued its downward spiral extending on last year's momentum.

Australia may be the lucky country after all. As a major commodity exporter, and with the local bourse largely comprised of materials and energy, the Australian equity market was the only market, in Australian dollar terms, to return positive over the quarter.

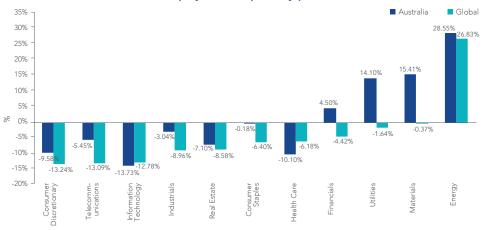
As the Russia/Ukraine conflict has highlighted, all financial markets are so interlinked, you do not know where the issue will be. Investors need to be wary of unexploded bombs. Sometimes, these remain unexploded; sometimes these are like the Nickel price on 8 March. We however remain confident that central bankers, learning from the lessons of the past, will see us through. It is time to look at that past, the 1970s.

Chart 1: Mainstream asset class returns for the quarter



Source: Bloomberg, 1 January 2022 to 31 March 2022, returns in Australian dollars. 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/ASX 200 Accumulation Index, Australian Small Caps is S&P/ASX Small Ordinaries Index, Gold is Gold [Spot U\$5/cx, USA Small Caps is Russell 2000 Index, Ginia Equities is CSI 300 Index, Global Fixed Income is Bloomberg Global Aggregate Bond Hedged AUD Index, Australian Bank Bills is Bloomberg AusBond Bank Bill Index, Australian Fixed Income is Bloomberg AusBond Composite 0+ yrs Index, EM Fixed 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 Nikieś 225 Index. Past performance is not a reliable indicator of future performance.

Chart 2: Global and Australian equity sectors quarterly performance



Source: Bloomberg, 1 January 2022 to 31 March 2022, 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 Utilities Index, Consumer Staples is MSCI World Materials Index / S&P/ASX 200 Materials Index, Consumer Staples in MSCI World Consumer Staples Index / S&P/ASX 200 Consumer Discretionary Index / S&P/ASX 200 Consumer Discretionary Index, Financials is MSCI World Financials Index / S&P/ASX 200 Financials Index, Energy is MSCI World Energy Index / S&P/ASX 200 Financials Index, Energy is MSCI World Energy Index / S&P/ASX 200 Financials Inde

That '70s Show

For the thirty years, from the end of WWII until the early '70s, economics was seemingly an easy game: economies cruised at around full employment, with government spending used to boost any shortfall. Central bankers could tap on the monetary brakes if things got too hot. Productivity growth was high, inflation low and standards of living steadily rose.

But, in the US, the world's biggest economy at the time, problems were building beneath the surface: government spending, on both social issues and the Vietnam War, was outstripping revenue. This led to budget and trade deficits. With the US dollar the world's reserve currency, and fully convertible to gold, funding pressures remained averted, even as inflation crept higher. Indeed, the global build-up of US dollars in the system saw asset prices march solidly higher.

So all was good: until two things happened.

First, French President Charles de Gaulle announced the intention to exchange its US dollar reserves for gold at the official exchange rate. The US could not afford this. The Bretton Woods system ended and financial markets had to adjust to a new world of uncertainty.

Second, the formation of the Organisation of the Petroleum Exporting Countries (OPEC) pushed the price of oil sky high.

The old prescriptions did not work in the face of a negative supply shock, when the supply curve moves up and in, output falls and prices rise. Any attempt to push output up by stimulating the economy has the effect of pushing prices even higher.

Stagflation became the term used to describe the combination of weak growth and high inflation. It led to economic misery at the end of the '70s. Stagflation was only ended by a deep recession brought on by soaring interest rates, high enough to wring inflation out of the system.

As well as the unemployment and misery caused in the real economy by the recession, asset markets were brutalised too. After adjusting for inflation, it took equity markets 20 years to regain their previous highs; real bond returns were negative for years.

The trauma inflicted on investors has had them jumping at stagflation bogeymen ever since.

Chart 3: Input price shock matches '70s, the Fed better be on the job

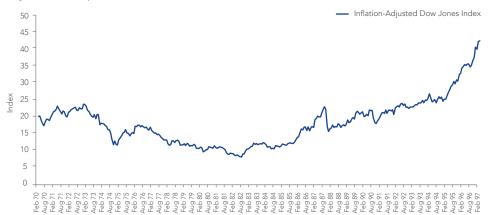
Producer price index (PPI) inputs and CPI



Source: US Bureau of Labor Statistics

Chart 4: Recovery from stagflation losses

20 years to recoup index level in real terms



Source: S&P Dow Jones, US Bureau of Labor Statistics

Are we there yet?

For the first time in five decades, we again have the prerequisites for stagflation:

- negative global supply shocks in both commodity prices and supply chains;
- the risk of entrenched high inflation expectations;
- overspending/overheating in the US economy; and
- incipient sovereign issues around US dollar and US dollar assets.

While we do not think we are quite there yet, we caution the jury remains out.

On the inflation outlook, US workers are using tight labour markets to press for higher wages. Temporary inflation pressures, initially from China/US trade sanctions, then ongoing snarls from COVID are now stretching into a fourth year due to Russia's war on Ukraine.

The concern for investors is when does higher headline inflation become entrenched in expectations? How long is too long? At this stage, it is up to the Chair of the Fed, Jerome Powell. Should he accommodate negative supply shocks, as initially happened in the '70s, we could be in for a world of hurt. At this stage, at least, he is saying the right things. However, saying and doing are two different things and there is a fear he may have already missed the boat.

Through the 2000s, US policy makers mocked their Japanese counterparts for falling into a liquidity trap, resulting in years of substandard growth and deflation. "We will never do that," they sneered. Yet, even armed with Japan as a recent example, politics and timidity led the US and Europe to walk into the same trap.

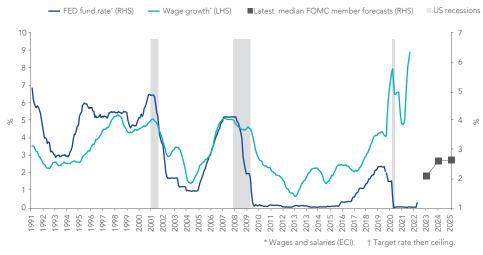
US and European policymakers also ended up longing for a bit of inflation.

"At least we know how to deal with inflation," US and European policy makers would say.

Well, here's their chance.

Chart 5: The jury is out on the Fed, too late or ahead?

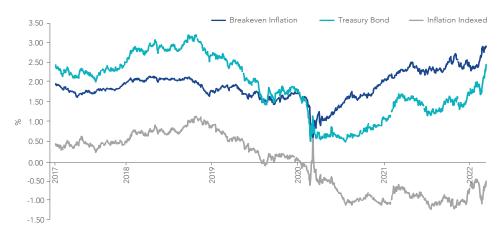
Wages growth versus Fed fund target and market expectations



Source: US Bureau of Labor Statistics, Federal Reserve, National Bureau of Economic Research

Chart 6: The market has inflation concerns

US Treasuries: 10-year real and nominal and implied breakeven inflation rate



Source: Federal Reserve Bank of St Louis.

From too little inflation to too much inflation

The Fed wasted many months on the "transitory" myth. They also, justifiably, kept rates on hold for fears of further COVID waves, even in the face of the biggest peacetime fiscal surge that resulted in the economy screaming ahead.

Now the Fed faces an economy at, or through full employment. It faces soaring input prices due to ongoing negative supply shocks and rising wages, with interest rates still at emergency lows.

The Fed is now making the right noises. It is picking up the pace of tightening and shrinking its balance sheet. Their median year-end projection for the Fed Funds rate is now 1.9%.

Nevertheless, it remains to be seen if the Fed will follow through. We remember how quickly Mr Powell stepped away from his earlier hawkish comments when markets got skittish in 2018. In addition, the Fed's projections do not really make a lot of sense.

The Federal Open Market Committee's (FOMC) latest projections show the pace of GDP growth halving through 2022, but to a still well-north-of-trend-of 2.8%, the FOMC's guesstimate of trend is 1.8%. This is all precipitated by a Fed Funds rate still less than half the inflation rate at year-end.

What's more, this above trend growth rate is expected to occur with almost no further labour market tightening and core inflation sliding back, presumably accompanied by softening wages growth as the current 5% wages growth rate is not compatible with slowing inflation.

Finally, beyond the COVID difficulties and the current tightening episode, the FOMC sees Fed Funds settling at 2.4%, well south of longer run nominal annual GDP growth of nearly 4%.

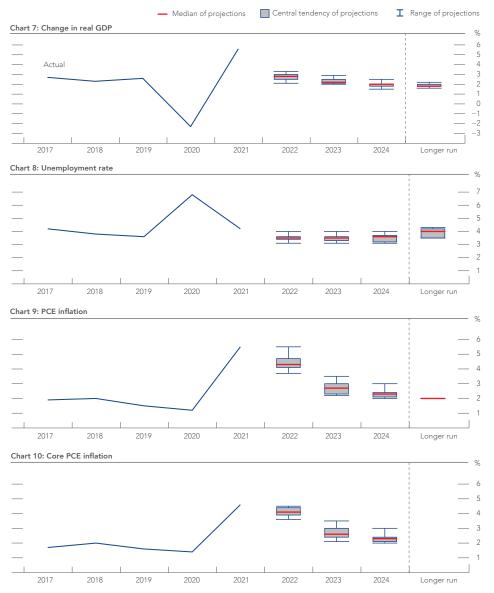
As we have argued over the past year, we think the secular stagnation era, the justification for low rates off into the hazy future, is over.

We have moved out of the era of peace dividends, positive supply shocks, just-in-time inventories, globalisation and tech-driven low nominal capex into an era of negative supply shocks, just-in-case inventories, global supply chains busted by politics and rising capital expenditures, driven in particular by onshoring, energy reform and defence spending.

The result will be a higher global demand for capital and hence higher neutral rate, aided and abetted by higher risk premia from inflation and uncertainty.

Charts 7 to 10: Much depends on the Fed's predictions

Medians, central tendencies, and ranges of economic projections, 2022-24 and over the longer run



Source: US Federal Reserve

The stagnation half of stagflation

The Fed has decided it needs to normalise rates and slow the economy. Their ideal outcome would be if they manage to "touch the wheels", that is, the economy descends just enough to get back on a steady path; and that this also proves sufficient to calm inflation pressures. The less rate hikes required to do so, the better, in terms of avoiding asset price falls and financial stresses.

There are several unknowns here - most notably, how much tightening will it take to slow the economy? And, how much time does the Fed have to do so, before high inflation is entrenched?

The further rates have to rise to achieve acceptable growth and inflation, the more mispriced assets currently are, and the greater the likelihood of asset dislocations become.

The longer the Fed takes, the greater the chances they have been too slow and inflation becomes embedded. This would make a recession, more-or-less, compulsory.

However, the faster the Fed proceeds, the more unlikely it is they can get policy 'just right' to achieve the fabled soft landing. This is why soft landings rarely occur when the Fed is late to the party, like now.

With wage and price growth high, and households and businesses still sitting on savings accumulated by fiscal largesse, it is hard to believe that negative real rates will engineer a sufficient slowdown, despite market wishes and Fed hopes.

So, what it will take to calm inflationary outcomes? This is another potential bad news story for the Fed. Based on the Phillips curve, we need a slow down.

Chart 11: The soft landing dream

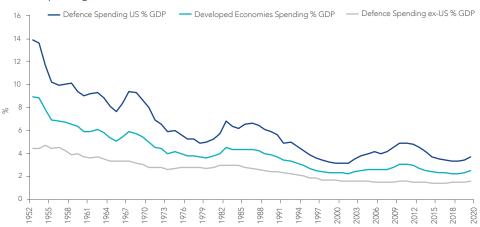
The US equity market and the Fed's cycles



Source: Bloomberg, Federal Reserve Bank of St Louis

Chart 12: Long run capex has been falling

Defence spending, % of GDP



Source: Bloomberg, National Bureau of Economic Research, Office of Management and Budger

Calming inflation

Until the late '70s, central banks subscribed to the idea of the Phillips curve: there was a trade-off between unemployment and inflation. Higher unemployment led to lower inflation and vice versa. Over time, however, it became clear that Phillips curves shift, driven by shifting inflation expectations and labour market rigidities.

In recent decades, the US Phillips curve appears to have flattened, a boon for Alan Greenspan when he was seeing how far he could push unemployment down without rousing inflation. However, if, like now, you are trying to push inflation back down, then the flat curve works against you: more economic weakness is required to quell the inflation.

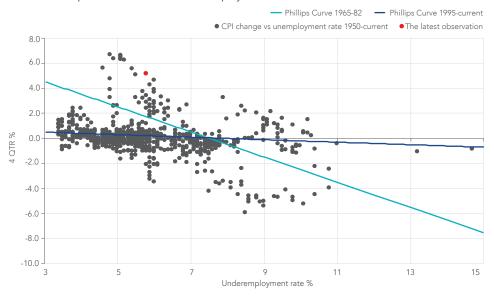
Therefore, the final question on monetary policy becomes, what happens when markets realise all this. Rates higher for longer and a weaker economy. Do they adjust asset prices accordingly? The adjustment could be acute. Alternatively, does Mr Powell retreat from hiking as he did in 2018?

This time, that seems unlikely. This is a once-in-a-career moment for Mr Powell, a professed admirer of Paul Volker. Recently re-appointed, it seems more likely than not he will choose to stay the course. Relying on the "Powell Put" may be a painful error.

Credit spreads, earnings forecasts and equity multiples do not look to be sufficiently pricing the risks of much higher rates or a hard landing. Indeed, credit looks like Dog of the Month: little margin over risk free, little upside, and bucketloads of downside risk.

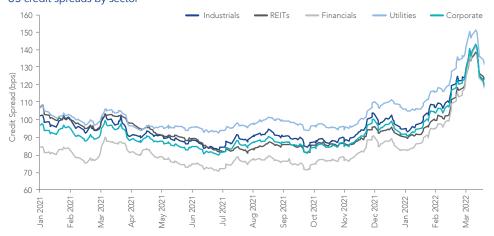
Chart 13: The Phillips curve

The relationship between inflation and unemployment



Source: Federal Reserve Bank of St Louis, US Bureau of Labor Statistics, National Bureau of Economic Research

Chart 14: Financials have moved higher relative to broader market US credit spreads by sector



Source: Bloomberg. Industrials is Bloomberg US Aggregate Industrials Index; REITs is Bloomberg US Aggregate REITs Index; Financials is Bloomberg US Aggregate Financials Index; Utilities is Bloomberg US Aggregate Utilities Index; Corporate is Bloomberg US Corporate Index.

Financial system revolutions

The third episode of this iteration of the '70s show was the collapse of the gold standard. The US had been building up foreign liabilities over the best part of a decade; while these liabilities were in US dollars, the gold standard meant they were convertible into gold, at the official rate of US\$32 an ounce.

Once the French Government demanded payment from the US Government in gold, at the official rate, the jig was up. There was no way the US could meet all its international obligations at that rate. This was exacerbated by global financial flows (that is, oil payments) from OECD economies to oil exporters.

Therefore, the US abandoned convertibility at US\$32 an ounce. The world had reached the end of the gold standard and, in fits and starts, the era of floating exchange rates began.

Beneath the fog of war, an equally momentous shift is occurring now. Regardless of moral issues, financial sanctions on Russia will have global blowback, both short term and in the future shape of global finance.

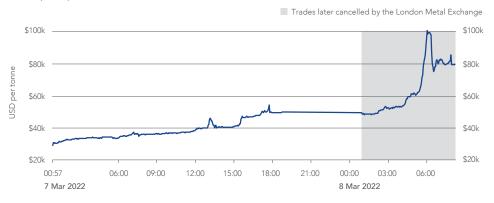
The impact of Russian sanctions on commodity prices is already obvious. What is less obvious is the damage to interconnected financial markets from breaking chains of collateral and financing across commodity markets. We have seen one case so far, a US\$8 billion margin call, which had to be abandoned before it destroyed the entire London Metal Exchange. There will be more.

In the medium term, the impounding of Russian Central Bank assets, the confiscation of assets of Putin associates and locking banks out of SWIFT looks likely to be the bigger, permanent impact. In an era of interconnected electronic finance, assets held in offshore currencies and banks are no longer secure, or even really yours. Confiscation can happen at will.

Again, there will be blowback.

Chart 15: The unintended consequences of sanctions

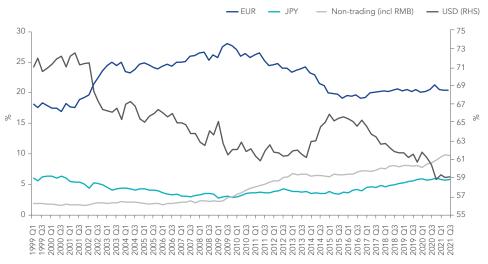
Nickel price per metric tonne



Source: Bloomberg.

Chart 16: The US dollar is still biggest, but it's shrinking

Shares of allocated reserves



Source: IMF.

The end of the reserve currency?

The '70s saw the end of fixed exchange rates; this episode will see the fracturing of global finance and could see the end of the US dollar as the world's reserve currency.

We've been talking about this issue since the eruption of the trade war between the US and China, and pointing out the extent to which the Chinese have been diversifying reserves away from US dollars. That however was mostly about extracting economic gain in a world of floating exchange rates, the confiscation of capital is a whole new ballgame.

The short run game is unexploded bombs. It is hard to believe there will not be some blow-ups in a heavily networked, highly leveraged financial system. Moreover, like unexploded bombs, it's hard to know where they are – until they go off.

The long run game is 'definancialisation': down with paper, up with things. There will be a flow of funds out of financial assets into real assets, preferably mobile ones. This equates to a permanently lower level of demand for US dollar assets.

Of course, this could not come at a worse time for the US Treasury market. With huge deficits to be financed and the Fed turning from the biggest buyer to quantitative tightening, the last thing Treasury market needs is fleeing foreigners.

Rising yields will increase pressure on equity valuation, attempts to re-inflate tech stock valuations look heroic, to say the least.

More broadly, central bank balance sheet expansion has been a long-running support for risk assets more broadly. Expect quantitative tightening (balance sheet shrinking) to commence after the next FOMC meeting.

The exception is China: the tech sector there has been so brutalised that bottom fishing could work. Especially since the Chinese Government does appear to have hit their put level on both capital markets and overall economic growth. In addition, with the US needing Chinese help to encircle/sanction Russia, expect a cooling of US/China tensions in the near term too.

We should also expect a fracturing of global financial architecture, likely along US western allies versus "the rest". Anyone sceptical of their long run relationship with the US/Europe, for example, Russia, China, Iran, Venezuela, will immediately start looking for alternatives to SWIFT and US dollar. Their trading partners across Asia are likely to gravitate to them too. Note that India, for all the security agreement hoopla, is already trading with Russia in defiance of sanctions.

Chart 17: Central bank's balance sheets and equities

G4 balance sheets and S&P 500 returns

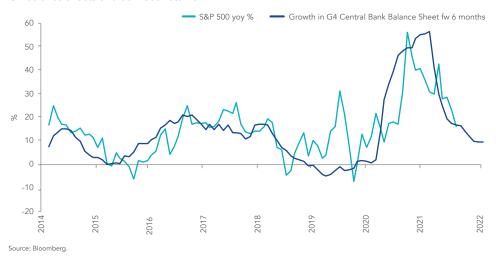


Chart 18: China could be a place for tech 'value'

NASDAQ 100 and FTSE China A tech index



Source: Bloomberg

China decoupling continues?

China's status as the only independent global growth driver in emerging markets (EM) gained in importance against the backdrop of the Russia/Ukraine war and its impact on global commodity prices and supply chains. The 2021 growth hiccups and regulatory overreaches forced Chinese authorities to re-deploy accommodative policies, while developed markets (DM) were moving towards policy normalisation and many EMs were aggressively tightening to combat rising inflation. A lack of obvious inflation pressures in China gives it plenty of room to ease more, yet the "new" stimulus is still very measured and mostly targeted, with the exception of some small blanket rate cuts. Why such caution?

One possible reason is that the past stimulus, especially the renewed support for infrastructure, started to work its way through the economy. We can see it in the latest activity gauges and high-frequency indicators. However, another possible explanation is that authorities do not want to use all their silver bullets at once. There is plenty to worry about, the new COVID outbreaks and China's zero-COVID policy threaten mobility and consumption, and the real estate sector is not yet out of the woods.

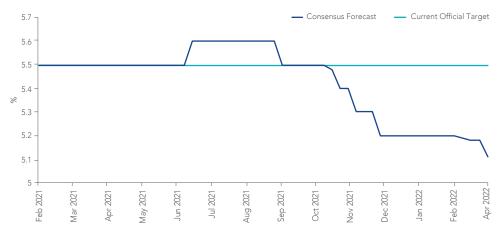
There are also concerns about the secondary sanctions if the Russia-Ukraine conflict continues to escalate. China's consensus growth forecast for 2022 has stabilised at around 5.1-5.2%, but it is still well below the official growth target of around 5.5%.

The just-released Government's Work Report authorised more policy support, especially on the fiscal side, while a special Financial Stability and Development Committee meeting called for "proactive" and "effective" policies, and "transparent and predictable" regulations. There were no concrete policy announcements, but China's high real policy rates mean that a "blanket" rate cut is still on the table. At the same time, unspent 2021 budgetary funds mean that the government can step up fiscal support without jeopardising the 2022 headline deficit.

Finally, the recent policy communications suggest that we might see more emphasis on the exchange rate and the 'two-way' FX trading, with a view of boosting exports' contribution to growth if China's domestic consumption continues to lag behind. After several years of moving in step with its regional peers, the renminbi diverged big time in 2021 and the gap continued to widen this year.

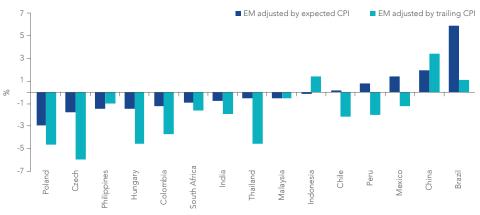
Chart 19: China's growth well below target

China's 2022 Real GDP Growth Forecast vs. Target (%)



Source: Bloomberg

Chart 20: China still has policy room
EM Real Policy Rates, % (adjusted by various inflation measures)



Source: Bloomberg

The emerging markets obstacle course

Elsewhere in EM, Russia's invasion of Ukraine has dominated the quarter. The Russian stock exchange is closed, Russian bonds are in the process of being priced close to zero. The particular trigger for the pressure on Russian bonds were sanctions on the central bank. These essentially disappeared over half of Russia's then US\$600 billion plus in reserves that were in US dollars, euro or yen. The intention of these reserves were, among many purposes, for the finance ministry for bond payments, as well as currency interventions. By the end of March, Russia will be excluded from equity and the key JP Morgan EM bond indices.

Ukrainian bonds also collapsed, as war reconstruction costs rose and a complete Russian takeover became a possibility.

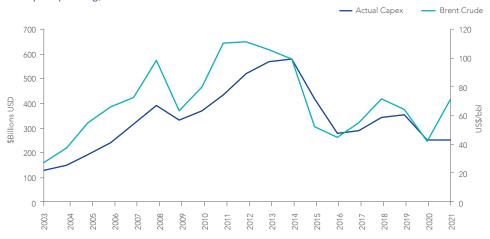
We see many obstacles in the quarter ahead in EM, starting with stagflation. There are few places for investors to hide in EM equities and EM debt for if they depend on market beta index-oriented exposures. EM debt index exposures, for example, will not be able to significantly shorten duration or make other adjustments.

There is good news for EM, commodity prices are providing huge support and look set to keep rising. The steady rise in oil prices has been met with a steady decline in capital expenditure. We see no sign that the US will see policy easing restrictions on oil and gas production. EM commodity-backed currencies should be big beneficiaries.

Another piece of good news for EM, EM debt in particular, is that EMs started raising rates way before it became cool. Key is that EM central banks are super- vigilant in keeping inflation expectations from spiralling. And, they tend to preserve strong external accounts, improving the ability of EMs to repay dollar-denominated debt, this has been a key EM strength over recent decades.

Chart 21: Recent rise in oil price and the decline in Capex

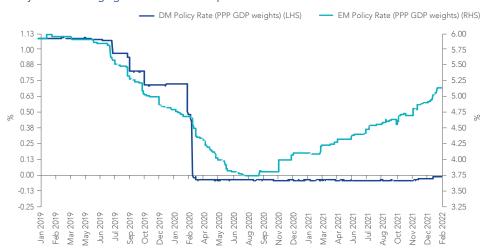
Oil capex spending, US\$ billions



Source: JP Morgan. Brent Crude is 12 month average.

Chart 22: EM rates were rising before it became cool

Policy rates in emerging markets and developed market



:Source: VanEck Research; Bloomberg LP.

Gold

Historically, geopolitical turmoil has been a short-term driver for the price of gold. Geopolitical drivers rarely last in the longer term for gold, as the world usually adjusts to new realities. However, the Ukraine war is having a greater impact on the global economy and financial system, compared to any regional conflict in recent memory.

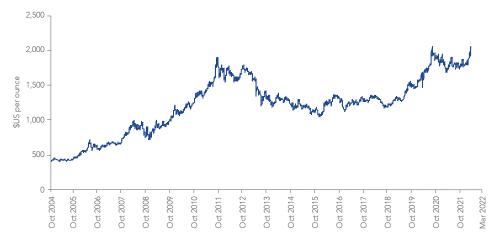
This conflict has raised risks globally as hostilities in other parts of the world may also escalate. U.S. sanctions on Russia have driven energy prices higher, further increasing inflationary pressures

Gold is now consolidating its break-out gains above the US\$1,900 level and we expect it to continue further, driven by inflation and the risks to the economy and markets posed by the coming Fed rate hiking cycle.

After 18 months of lacklustre trading, and apart from the Russia/Ukraine conflict, sentiment is improving for gold for several reasons:

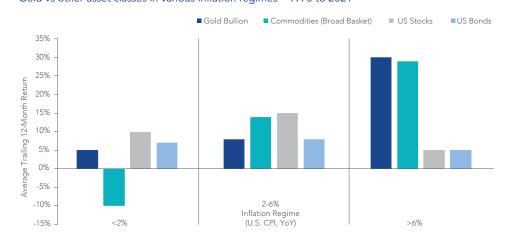
- Technically, gold has seen a half-dozen breakout attempts that have failed since it reached its US\$2,075 high in 2020. Finally, there is now a confirmed break-out and a more positive chart trend in view.
- Investors were questioning gold's efficacy as it struggled amid rising inflation. The recent price moves leave no doubt that gold is performing as a safe haven asset. We believe its role as an inflation hedge will also emerge if inflation persists in 2022.
- For just over a month, gold bullion exchange traded products have seen their strongest inflows since gold peaked in August of 2020. This indicates a return of strong investment demand.

Chart 23: Gold flirts with US\$2,000 LBMA PM Gold Price



Source: VanEck Research, Bloomberg.

Chart 24: Gold as a hedge against inflation Gold vs other asset classes in various inflation regimes – 1970 to 2021



Source: VanEck, Bloomberg, Morningstar. Data as of December 2021. "Commodities (Broad Basket)" represented by the Bloomberg Commodity Index TR; "U.S. Equities" represented by the S&P 500 TR; "U.S. Bonds" represented by the Bloomberg Barclays US Aggregate Bond Index TR from 1976 to 2020, the Bloomberg Barclays US Government/Credit Index TR from 1973 to 1976, and a blend of Morningstar's U.S. Long-Term Government Bond, U.S. Intermediate Government Bond, and U.S. Long-Term Corporate Bond Indices from 1970 to 1973.

Will the RBA learn from the Fed?

The Australian economy was in the doldrums prior to COVID and benefited from the resulting policy splurge. Unsurprisingly then, Australia is emerging out the other side with a little more breathing room than the US.

The RBA has been forced into multiple backdowns on curve control and forward guidance. For example, policy which was on hold until 2024 was revised to 2023, then revised to later this year.

As it stands, current inflation rates, (that is, the latest couple of quarters, not what happened a year ago) are starting to strain at the seams. The March quarter, at the headline level, could be even higher. Under the hood, we expect the sticky bits like non-tradables to starting to move upward. Consumer and business inflation expectations are lifting.

Even Governor Lowe's non-target target, wages, is stirring with hints in business surveys, anecdotes and ABS weekly payrolls statistics.

This is hardly surprising: unemployment (or, more, specifically, underemployment) is down to levels consistent with wage growth targets.

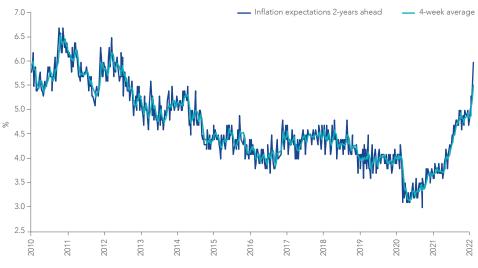
Hopefully, the combination of one more quarter of higher prices and expectations of higher prices, wages growth, booming commodities and an 'election' budget will be enough to push Governor Lowe into action. Otherwise we risk being in the US situation by the end of the year. We might have left our move late.

The Australian dollar and the Australian equity market had a relatively strong quarter compared to the rest of the world. Both buoyed by the rise in the commodity prices. Another factor supporting equities was the Big Australian, BHP, which is now bigger – over 13% of the S&P/ASX 200 Index after it consolidated it UK listing. The composition of the Australian bourse has become more cyclical and concentrated as a result.

The Australian market has benefited from the rise in commodity prices. We are not immune from the Russia/Ukraine war or the impact of the Fed's policy. It is all connected.

Chart 25: Australia is not out of the inflation woods

ANZ-Roy Morgan 2-year-ahead inflation expectations



Source: ANZ-Roy Morgan.

Chart 26: Using the right proxy

Two measures of annual wages growth with one constructed never to move



Source: ABS, VanEck

VanEck's range of Exchange Traded Funds on ASX

Name	ASX code	Index Management	fees (% p.a.)*
Australian Broad Based			
Australian Equal Weight ETF	MVW	MVIS™ Australia Equal Weight Index	0.35%
Australian Sector			
Australian Banks ETF	MVB	MVIS™ Australia Banks Index	0.28%
Australian Property ETF	MVA	MVIS™ Australia A-REITs Index	0.35%
Australian Resources ETF	MVR	MVIS™ Australia Resources Index	0.35%
Australian Small and Mid Companies			
Small Companies Masters ETF	MVS	MVIS Small-Cap Dividend Payers Index	0.49%
S&P/ASX MidCap ETF	MVE	S&P/ASX MidCap 50 Index	0.45%
Australian Equity Income			
Morningstar Australian Moat Income ETF	DVDY	Morningstar® Australia Dividend Yield Focus Index™	0.35%
Sustainable Investing			
MSCI International Sustainable Equity ETF	ESGI	MSCI World ex Australia ex Fossil Fuel Select SRI and Low Carbon Capped Index	0.55%
MSCI Australian Sustainable Equity ETF	GRNV	MSCI Australia IMI Select SRI Screened Index	0.35%
International			
FTSE China A50 ETF	CETF	FTSE China A50 Index	0.60%
China New Economy ETF	CNEW	MarketGrader China New Economy Index	0.95%
MSCI Multifactor Emerging Markets Equity ETF	EMKT	MSCI Emerging Markets Diversified Multiple-Factor Index (AUD)	0.69%
Morningstar Wide Moat ETF	MOAT	Morningstar® Wide Moat Focus Index™	0.49%
Morningstar International Wide Moat ETF	GOAT	Morningstar® Developed Markets ex Australia Wide Moat Focus Index™	0.55%
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 Value ETF	VLUE	MSCI World ex Australia Enhanced Value Top 250 Select Index	0.40%
MSCI International Small Companies Quality ETF	QSML	MSCI World ex Australia Small Cap Quality 150 Index	0.59%
Global Sector			
FTSE Global Infrastructure (Hedged) ETF	IFRA	FTSE Developed Core Infrastructure 50/50 Hedged into AUD Index	0.52%
FTSE International Property (Hedged) ETF	REIT	FTSE EPRA Nareit Developed ex Australia Rental Index AUD Hedged	0.43%
Gold Miners ETF	GDX	NYSE Arca® Gold Miners Index™	0.53%
Global Healthcare Leaders ETF	HLTH	MarketGrader Developed Markets (ex-Australia) Health Care AUD Index	0.45%
Australian 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%
Thematic			
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%
Global Income		Performance Benchmark	
VanEck Emerging Income Opportunities Active ETF (Managed Fund)	EBND	50% J.P. Morgan Emerging Market Bond Index Global Diversified Hedged AUD and 50% J.P. Morgan Government Bond-Emerging Market Index Global Diversified	0.95%
Capital Securities		Index/Benchmark	
VanEck Bentham Global Capital Securities Active ETF (Managed Fund)	GCAP	RBA Cash Rate + 3% per annum	0.59%
Australian Subordinated Debt ETF	SUBD	iBoxx AUD Investment Grade Subordinated Debt Mid Price Index	0.29%
Alternatives			
Global Listed Private Equity ETF	GPEQ	LPX50 Index	0.65%

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