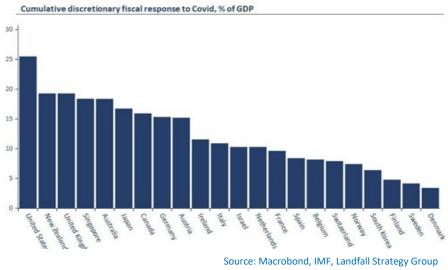
Investor Update Since the Fed's speech at Jackson Hole over six weeks ago, financial markets have succumbed to relentless selling. We must look back in the history books to find worse records of performance.

How did we get here? Simply put, Covid.

Unprecedented non-war time global fiscal and monetary stimulus was applied to stave off a pandemic induced depression. It worked. Global growth rebounded in 2021 and continues to expand however it has been funded by massive public debt making any further fiscal profligacy a problem. The UK and US for example, now have net public debt around 100% of GDP and the UK government's recently announced intention to cut taxes seen by many as going too far with fiscal stimulus. The discretionary fiscal support in many economies was greater than 10%, with many close to or above 20%, including New Zealand, the US and UK. Meanwhile, as we emerged from Covid, demand far exceeded supply. Supply chains, already weakened by the pandemic could not keep up, while countries who experienced supply chain induced shortages during the pandemic vowed to bring key manufacturing back home, adding additional cost to already rising prices. Other factors made the situation worse; Ukrainian-Russian conflict sent energy and food prices higher while households and businesses that had been hoarding cash during the pandemic unleashed a global spending frenzy.



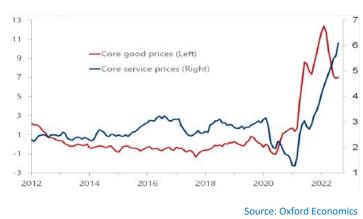
The result: inflation everywhere.

It was not just energy and food prices that surged higher, but services, wages, rent, housing, health care. In retrospect, the US Federal Reserve (and other Central Banks) were too slow to respond and as a result we face not only a global inflation problem - the highest in 40 years - but persistently high **Core Inflation** (red bars in the following chart). This is the type of inflation that can get entrenched and consequently worries Central Banks the most - especially so when wages and rent are impacted. The good news is that non-core inflation in some areas has begun to ease - namely commodity prices; and even within core inflation, supply chain pressures (particularly goods inflation) have started to come down (red line below). However, as consumers have shifted from owning goods to going out and tavelling, core service inflation (blue line) remains too high. Central Banks are particularly concerned about the persistence of this type of inflation.



As a result, interest rates had to go higher - not only to break the back of inflation, but to reprice the cost of capital to a more 'normal' level. At the same time, Central Banks needed to start reducing their bloated balance sheets, selling the bonds they have been purchasing over the last two years. Selling these bonds on the open market increases the upward pressure on bond yields and is a major contributor to bond market volatility. Meanwhile, as the UK has learned to its peril, already indebted governments cannot simply spend their way out of recession with money they don't have.

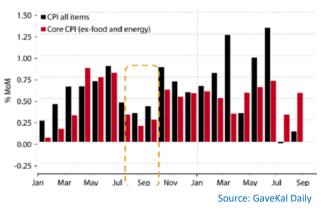
Year on Year US inflation Source: Oxford Economics



The Fed and Central Banks around the world have no choice, but to administer the tough medicine. They need to raise interest rates high enough to engineer an economic slowdown, so that simply put, supply and demand come back into balance. Given that additions to supply can take years (and we see no clear end to the conflict in Ukraine), the only antidote available at present is to reduce demand.

So Central Banks are raising rates and selling bonds, talking tough and trying to spook consumers and businesses into spending less while allowing asset prices to fall (including houses), all of which combine to make people feel less

Change in US Monthly Inflation



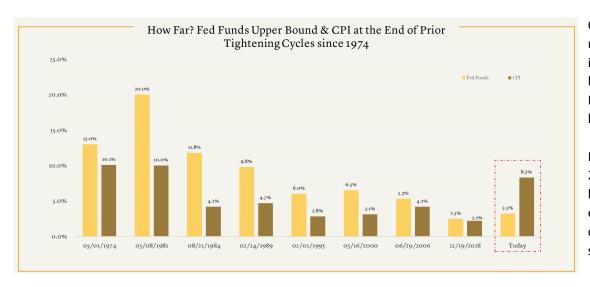
well off. Meanwhile, provided investment market declines do not threaten financial system instability, it appears that Central Banks are willing to tolerate volatility. The so-called 'Fed put' which historically has come to the rescue in periods of stock market turbulence is no longer operational and is likely remain so while inflation remains persistently high and yet systemic risk is contained. The recent pivot by the Bank of England to suddenly 'buy government bonds', does show however, that in times of financial stability stress - in this case damage to UK pensions funds - Central Banks are still prepared to step-in.

How much further might rate rises need to go?

Using the US as an example, in prior tightening cycles (1974 onwards), the Fed needed to raise its Fed Funds policy rate *above* the level of inflation measured by the Consumer Price Index or CPI. Currently, markets expect Fed Funds to peak around 4.5% at some point next year. Given the recent tight US employment data, the market is pricing in a 100% certainty of 75bps and 50bps hikes at the next two Fed meetings. However, as seen in the next chart, if history is any guide, rate hikes may need to exceed that 4.5% level. The dark columns show CPI and the yellow the Fed interest rate. Not surprisingly, the path to a soft landing has demonstrably narrowed; even Chair Powell acknowledging the risk of recession ahead.



"...we don't know, **no one knows whether this tightening process will lead to a recession** or if so, how significant that recession would be. That's going to depend on how quickly wage and price inflation pressures come down, whether expectations remain anchored, and whether also, do we get more labour supply, which would help as well. In addition, **the chances of a soft landing are likely to diminish**, the longer the tightening remains in place"



-Jerome Powell, U.S Federal Reserve Chairman

Our group's base case is to now expect a shallow recession in the US, sometime in 2023 as tightening impacts economic activity with an approximate six-month lag. The case for a more protracted downturn is higher in Europe though we cannot rule out negative feedback loops back into the US.

For New Zealand, a shallow recession is also possible in 2023 as the increasing cost of capital slows the rate of borrowing and spending. However, given our full employment, increasing tourism, weak dollar, and strong offshore demand for NZ commodities any recession should be mild.

Regardless of the magnitude, recession to curb inflation is preferable to high and persistent inflation which morphs into stagflation. Not only does inflation make

everyone poorer in real terms, but financial markets offer little reprieve. The so-called 'Great Inflation' of the seventies preceded a decade of dismal returns for the market.

Source: Bloomberg LP & Piper Sandler

Any recession next year (assuming inflation is sufficiently tamed in the process) will allow us to be more upbeat about the prospect of a stronger mid-term recovery given that Central Banks will be required to cease tightening and most economies (particularly the US) will still be in a position of relative strength. Indeed, as seen in recent economic data in the US, Australian and even parts of Europe and Asian (ex-China) economies are, if anything, still too strong.

Overall, the US has the highest chance of getting through this tightening cycle with the least amount of economic damage. We still see robust consumer demand, strong labour market dynamics, a relatively healthy financial sector and the growing trend of onshoring of manufacturing.



Historical Central Bank Tightening is not without risk.

Sharpest US Rate Rises since 1994



It is also worth noting that the US is undertaking one of the fastest tightening's in cycle history and they are not alone. Seventeen global Central Banks have raised interest rates over the last few weeks, which puts the number at 317 tightening in total since February of 2021. And monetary authorities across the world are moving from their standard 25bp increases in favour of 50bp, 75bp and — in the case of Sweden and

Canada — 100bp moves to curb inflation and stem dollar declines. There are risks to this magnitude of monetary tightening that there is an accident in financial markets as liquidity is drained and certain financial players are positioned the wrong way. The recent example of pension funds in the UK not

being able to cope with margin calls when bond yield soared (on Prime Minister's Truss fiscal package) is a good case in point. Global tightening may also go too far. Because the impact of tightening comes with a lag, and inflation itself is a lagging indicator, there is a risk that Central Banks looking at inflation trends today are tightening using 'rear view data', causing global growth to slow more than expected in 2023. Global risks to growth also remain and need to be considered by Central Banks including: the strength of the US dollar, the energy crisis in Europe, war in Ukraine, Covid locks-downs in China all have the potential to exacerbate a global slowdown.



■ PRIVATE WEALTH MANAGEMENT
■

When will we know that the worst is over?

Statistically and historically speaking, we should be getting close to a market bottom. Globally, bearish sentiment is at record levels with various survey data reporting investor pessimism at levels as low as during the GFC, the September attacks in 2001 and the onset of Covid in 2020. In the past, these types of 'bearish' readings have preceded market bottoms with any subsequent good news being the foundation to move markets significantly higher.

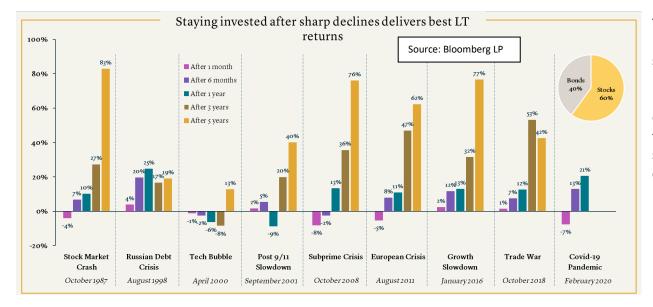
Markets may not get better until inflation trends decisively lower and/or the markets believe that the worst of the tightening cycle is behind us. In the interim, markets may remain vulnerable to the shifting sands of data and investor sentiment. However, once inflation has peaked, history has shown that gains can be quite substantial, with average forward 12-month gains of 16% on average. It is worth bearing in mind that even though inflation should come down, it may not stay down. Deglobalisation trends, aging demographics and the energy transition may keep inflation structurally higher than in the past. Furthermore, we suspect that while the Fed should be able to force inflation down by sometime in 2023, the days of 2% inflation may be a thing of the past. This is not to say that markets cannot recover. Economies have successfully prospered before in a world of 3-4% inflation.

While the rally of July and August was ultimately premature, it is worth remembering that markets went up 17% in just 8 weeks following the June low. This was just on the suggestion that the worst of inflation might be behind us. Indeed, as seen in data going back to 1945 (chart below), what moves markets is not the final level of inflation, but rather the direction. Based on the history of prior tightening cycles, the best market gains were made when inflation decelerated from levels of between 6-8%, pretty much the potential scenario we have today. This is not to say that there is not risk for more downside ahead, but rather that on average, when this type of market decline occurs, there is a fair probability of positive returns over the subsequent 12 months.

Markets can turn to the positive just as quickly as they decline. Importantly missing the turn, can dramatically impact long term returns for investors and we encourage all our clients to remain on strategy and be patient. We continue to believe that it pays to stay invested during periods of financial and market disruption and crisis. The chart opposite, shows markets deliver outsized returns following market troughs. Each coloured column shows the returns 1 month, 6 months, 1, 3, 5 years from a market bottom.

In summary

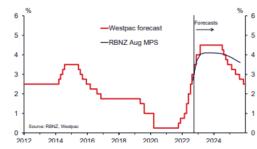
The current environment is difficult for investors and there are ongoing risks to the global economy and company earnings. However, the path forward to a more normal investing environment and recovery is clear - lower inflation and a peak in the tightening cycle. The timing of when that happens remains less clear. Markets will therefore remain volatile –with both down and up swings, trying to find that bottom.



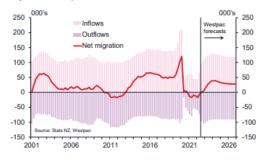
Tactically trading and trying to time the market risks missing strong bounces. We are staying positioned with a shorter duration in bonds while looking for an opportunity to go longer and continue to maintain a focus on quality assets which are more resilient during times of downturn and typically experience smaller declines to earnings and outperform other parts of the market.



New Zealand Our economy continues to be surprisingly resilient and businesses less pessimistic about general economic conditions (despite persistent and strong inflation), ongoing labour shortages and the RBNZ on its continued track of tightening. Consumer confidence also improved in the period but remains on very low levels and comparable to the GFC. Households are particularly feeling the pinch of rising food costs and mortgage repayments. Given inflationary pressures, the RBNZ increased the cash rate for a 5th time to 3.5% and have said further increases are likely. As a result, a terminal cash rate of 4.75% may occur by 2023. Meanwhile. house prices had their worst decline since 2008 with CoreLogic NZ saying the -4.1% quarterly decline is second only to a -4.4% drop during the GFC. While broader commodity prices have fallen since March, food Migration flows by direction prices have been more resilient, and a weak NZD continues to



OCR forecasts

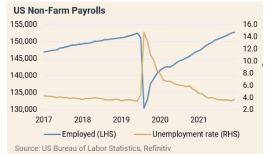


provide a significant tailwind for our primary producers. Consented building work was also up in the period and nearly 17% higher than a year ago. There were also record car sales for August with a jump in electric and hybrid vehicles following the new fee rebates. From here, New Zealand needs to resolve chronic labour shortages as net migration numbers drift lower and the economy becomes increasingly hamstrung by a lack of skilled workers. Our critical tourism sector is getting busier, but without workers to staff it, they risk a very poor experience. From here mortgage rates are rolling up sharply. More than 50% of mortgages are due to be re-fixed in the next 12 months and possibly by 3% p.a. to 4% p.a. This will continue to put household spending and property prices under significant pressure despite recently better auction clearances.

Australia After the strong surge in consumer activity post pandemic re-opening, consumer confidence declined in Australia during the period as higher mortgage rates, falling house prices and inflationary effects dampened demand. This is despite the tightest labour market in 50 years underpinning job confidence. Business and housing investment also declined while lower commodity prices reduced a still very strong trade surplus back from June quarter record levels. The reduction in household confidence and lower spending enabled the RBA to lower its interest rate hike in September to 0.25% rather than the market anticipated 0.5%. Australian GDP is +3.6% higher than a year ago and still forecast to come in around +3.5% for 2022 which is still good but slightly less than expected from the June quarter. The Australian economy is likely to decelerate further into 2023 as households and businesses adjust to higher interest rates, although Chinese demand for exports may pick up strongly as their economy accelerates out of Covid lockdowns supporting demand for Australian

commodities. Elsewhere, this year Australia celebrates 30 years of compulsory superannuation in Australia resulting in approx. \$3.3trillion of pension savings (AFR).

The US economy is robust - too robust for the Federal Reserve. While US manufacturing slipped in September to a 2 year low, the US ISM services index rose for the 28th consecutive month reinforcing the ongoing strength in their domestic demand. Their unemployment rate fell to 3.5% and is now back to pre-pandemic lows, evidence of a still very tight labour market. As services make up a significant portion of core inflation measures, the Fed remains hawkish about the need to continue to raise rates and is not showing any sign of

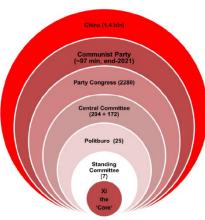




US

pausing. Markets expect another 1.5% rise before this cycle concludes, lifting the rate to a peak of 4.625% by next February. Their fight against inflation will eventually come at a significant cost to the economy though talk of recession has recently resided.

and retail sales subsequently jumped in August on pent up demand. Manufacturing is also recovering and up +10% year to date. Aside from the lockdown impact, China faces several other headwinds primarily in the construction area where residential building activities, such a large part of their economic activity, continue to slump. Building activity is down -7.4% from a year earlier while property sales are down -30.3%. The sector has suffered a funding and confidence crisis which authorities are trying to avert while still allowing for further deleveraging of this critical sector. Conversely, business investment has been stronger and infrastructure and utilities investment robust. To offset the impact of Covid, authorities announced a rolling series of financial stimulus packages with the last one in August for \$44bn to lend to infrastructure following a similar package in June. They have also been managing their currency lower to assist with exports - particularly to the Asian region seeking to pivot and offset reduced demand from Western economies. Growth this year is likely to be around 3% - well under their 5.5% target. The 20th National Congress of the Chinese Communist Party will be held in Beijing



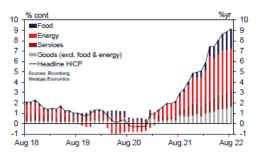
Xi Consolidates Power

this coming month and Xi is expected to consolidate power for another 5 years with 'National Security Economics' a greater focus. The military technology gap between the US and China is rapidly growing again after shrinking for the last 30 years and Xi knows this. Meanwhile Japan will upgrade its cruise missiles and is researching hypersonic weapons as it looks to significantly increase military spending to counter what Tokyo sees as the rising threat from China. (AFR).

Europe & UK Europe has built gas inventory levels to around 90% ahead of winter. This provides some protection against the total loss of Russian gas, and they should be able to manage their way through the winter period. Europe needs to urgently secure alternative sources of reliable energy (including LNG cargo and a big

push on green energy), or risk going into deep recession next year. Meanwhile, Russia recommenced supply to Italy in the wake of their elections and far right candidate win. Overall, the rising cost of energy will hinder manufacturing and exports. Despite this the ECB is likely to lift rates +0.75% in October to combat a +10% (and 50-year high) inflation rate (core inflation +4.8%). Meanwhile the UK is in a mess. New tax cut announcements against a backdrop of record government borrowing and a need to subsidise energy costs was seen by financial markets as irresponsible. The BOE had to intervene in bond markets to stabilise prices and the government had to reverse policy - not a good start for the new Prime Minister. Hopefully the UK can achieve some balance between their fiscal and monetary policy settings with their budget in October. The UK unemployment rate fell to 3.5%, the lowest level since 1974.







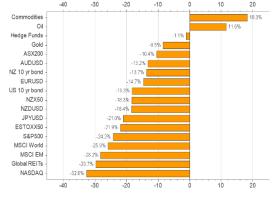
China

MARKETS The global Central Bank response to inflation has been historically rapid and immense. Markets are struggling to digest the historically fast tightening with increasing concern from commentators that Central Banks may have moved too far given they are setting policy with their eyes firmly on the inflation data rear mirror. The robust nature of the post pandemic activity response has, to date, frustrated policy with only recent signs that headline inflation is starting to turn down Meanwhile core inflation, driven by services demand remains persistent. Falling commodity prices and falling expectations for inflation amid growing global growth concerns gave the Australian Reserve Bank sufficient doubt to reduce their recently planned hike to 0.25% from 0.5%. There are also additional worries that while Central Banks are prepared to accept a recessionary outcome to confront inflation, financial market stability is increasingly being put at risk as the market not only adjusts to the record rate rises but also tries to absorb Central Banks offloading bonds from their balance sheets. Central Banks need to ensure financial systems are not put at risk which would be an 'own goal'. Hopefully as we move into the last guarter falling core inflation will provide a reason to pause.

Cash The RBNZ increased the NZ cash rate for a 5th time by 0.5% to 3.5% and said further increases are likely. They had debated a 0.75% increase. The RBNZ remains concerned with our constrained capacity particularly labour shortages feeding through to core inflation. Given their tightening track, we could see a peak rate of 4.5% and as soon as early 2023. Despite the rate tightening spree, our currency remains weak on deteriorating current account deficits (June's was a record) and a strong USD. Handy for exporters but not so good for importing inflation. Rate rises continue at pace offshore with only the RBA indicating a lower trajectory. US cash rates are likely to rise in 0.5% increments over the next 3 Fed meetings to 4.76% by March 2023.

Fixed Interest Year to date global bond market losses have been remarkable and arguably the worst in 50 years. NZ 10-year bonds have fallen -13.7% and US 10-year bonds -18.3% in value. When combined with sharemarket returns - ranging from -10% to -32% - it is not hard to understand why investment portfolios have been hit so hard given diversification has provided little protection. Yield curves are also flattening and inverted in some markets implying pricing for some form of recession in 2023. With interest rates starting to dampen spending, we may see a further reduction in headline inflation and core inflation this quarter which may mark a turning point for Central Bank policy. Markets are waiting for the "Powell Pivot" though he may seek to overshoot to preserve authority. The outlook for bond returns has now vastly improved and they offer decent yields again. We will be looking to progressively move out of our very defensive bond position in portfolios by extending duration.

Year to Date – Benchmark Returns



Source: Refinitiv Datastrean



— US



Bond Yields Surge Again





Equities After rallying in July and August, share markets retreated in September on tougher Fed policy talk. The broad MSCI global index has retreated this year -26% while our local market is down -18% and the Australian market (with more commodities) down -10%. Company earnings to date have been resilient but

likely to come under pressure as we move into the final quarter for the year. Rising input costs and weaker household and business spending will impact top and bottom lines though some services industries still recovering post pandemic may fare better (particularly health services, travel & tourism). Share markets are presently pricing in a 40-50% chance of recession in 2023 though unemployment would need to lift sharply for any deep recession to occur. Valuations have now been substantially derated. Forward P/E ratios for the US market are running at 16x and well below the 5-year average of 20x and below the 10-year average of 18x. Trailing P/E ratios for the US market (shown in the chart opposite) have declined from 35x to 18x and are also well below 5- and 10-year averages. NZ market P/Es have fallen from 30x to 22x. Markets remain vulnerable to lower moves if we get particularly poor earnings growth prospects. 2nd quarter earnings results were actually very strong (75% of US firms reported a positive earnings surprises) but the coming earnings season will be more difficult. The US market is presently pricing in a -4% to -8% earnings decline. It is interesting to note that in the last 80 years US stocks have always risen after US mid-term elections with the average gain of nearly +15%. It is also interesting to note that globally,





managed funds are holding near record amounts of cash and US share market futures positioning is presently at its most bearish since the height of the pandemic.

- Property With surging household debt servicing costs (50% of mortgages set to reprice this coming year), flat to negative net migration pressures and record building completions and consents, dwelling prices have continued to fall in the period. The REINZ house price index is now down -8.1% year on year while Auckland is -11.2%. Several bank forecasts have prices potentially moving lower another -10% to -15% in this cycle. This will add further pain to leveraged and cash flow short households. Barfoot & Thompson says that in September they suffered their worst sales since 2008.
- **Commodities** Broad commodity prices have still performed well this year. Energy prices continue to be underpinned by Russian export bans. Elsewhere, industrial metals have fallen sharply since March, though are expected to improve as Chinese manufacturing comes back online post lockdowns and as global infrastructure activity (particularly the US and China) accelerates. NZ commodity export prices have held up well in depreciated NZ dollar terms, though global prices are starting to retreat on better supply. Meanwhile alternative investments such as gold is down -9% this year and crypto currency trashed with leader Bitcoin down some -60%.



