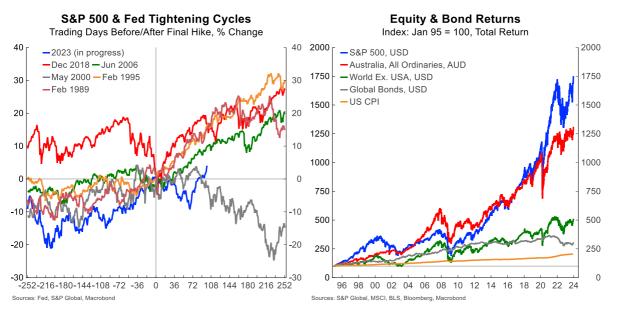
Investment Insights

Crystal Ball Gazing: Returns Post Fed Peak

- Financial markets have become increasingly convinced that the Federal Funds Rate has reached
 a peak in this cycle. These views were cemented after the Federal Reserve's final meeting of
 2023. While keeping rates on hold, the Fed watered down their hard line on keeping rates
 higher for longer, moving their guidance closer to market expectations.
- Uncertainty is arguably the only certainty in investing. However, there are still many lessons to be learnt from the past. As the old Mark Twain saying goes, "history doesn't repeat itself, but it often rhymes." This is also true for considering major turning points in the market cycle.
- In thinking about future returns, we can look to previous peaks in the Fed funds rate. We can't simply implement the playbook that worked in the past. However, a healthy appreciation of where we have been can provide useful guideposts for setting expectations for the future.
- Following three of the previous five Fed tightening cycles (excluding the current cycle), annual
 price returns on US equities at some point over the next 12 months reached at least 26%,
 putting each rally into the top 15% of monthly rolling annual returns since 1928. The remaining
 cycles were impacted by the dot-com crash and the Global Financial Crisis (GFC).
- Returns across other asset classes, including global equities and bond markets, have also generally been positive in the 12 months following a peak in interest rates.
- While returns following peaks in interest rates have been generally positive in the past, timing
 the market is always a challenging task. However, that is unlikely to stop people from trying.
 Over the long term, investors who broadly diversify across risky assets and geographies and ride
 out the bumps in the road have been rewarded with significant gains.



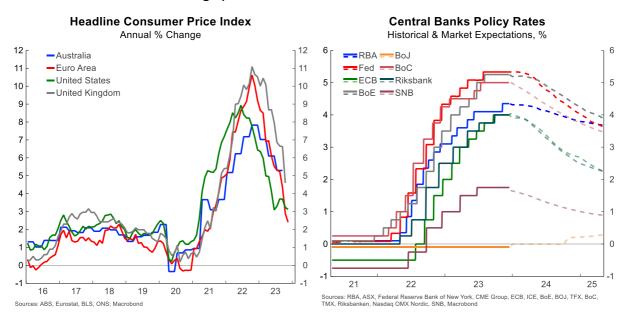
Over the past two months financial markets have become increasingly convinced that the Federal Funds Rate has reached a peak in this cycle, as central banks gradually get on top of the inflation threat. Federal Reserve members tried to talk tough by repeating the mantra that interest rates will be higher for longer, particularly if inflation proves to be stickier than expected. However, financial markets called their bluff and instead positioned for an eventual easing in policy.

Expectations strengthened this week following the Federal Reserve's final meeting of 2023. The decision was to keep rates on hold, as expected. However, members watered down their hard line on keeping rates higher for longer, moving their guidance closer to market expectations. The 'dot plot', which provides an estimate of member expectations of rates in the future, showed that <u>all</u> members expected the current 5.25%-5.50% range to be the peak in this cycle. Looking into 2024, the dot plot showed that the median expectation is for 75 basis points of cuts in 2024, 100 basis points of cuts in 2025, and a further 75 basis points of cuts in 2026.

The 'nod' from Fed officials galvanised expectations for rate cuts in 2024 and pushed market pricing towards even more aggressive rate cuts now that the residual risk of push-back from the Fed had dissipated.

Financial markets are always forward looking. Prices move in response to market participants' expectations for the future, not the past or even necessarily the present. Looking forward, markets are currently pricing around 150 basis points of cuts in 2024, well beyond the 75 basis points of cuts expected by the median Fed member.

The story is similar when it comes to expectations for the European Central Bank (ECB) and the Bank of England (BoE), where financial markets are expecting rapid cuts through 2024. Rate expectations have also moved in Australia, where markets expect a bit over 50 basis points of cuts by the end of 2024. Indeed, across most developed countries – except Japan – financial markets are of the view that rate hiking cycles are over and that the next moves in interest rates are down.



Long-term interest rates have also fallen rapidly over the past two months. After hitting a peak of over 5% in mid-October, the US 10-year treasury yield has plummeted to below 4% currently. This is a very rapid move in such a short space of time (8 weeks). In fact, a fall of this magnitude over such a short space of time has only occurred on less than 1% of occasions over the past 10 years (and they were all during COVID).

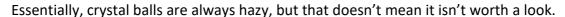
Equity investors rejoiced as short- and long-term interest rates fell and equity prices rallied. In November, the S&P 500 surged 8.9% in only one month. This strong performance has continued

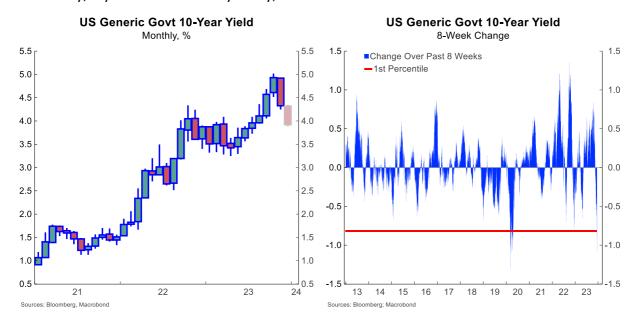
into December and has contributed to the total return for the S&P 500 (including dividends) rising to 24% for the 2023 calendar year so far. This is an incredible return. Recall that many analysts were expecting the US to enter recession this year and that 2023 was marred by the largest US bank failure since the GFC, several political stoushes over the debt ceiling and administrative funding and the eruption of conflict in the Middle East, and still elevated – although easing – inflation, just to name a few.

Is everything going to be rosy from here now that we have passed a turning point? Not necessarily. There are many challenges ahead and returns are always uncertain.

Uncertainty is arguably the only certainty in investing. However, there are still many lessons to be learnt from the past. As the old Mark Twain saying goes, "history doesn't repeat itself, but it often rhymes." This is also true for considering major turning points in the market cycle.

There are many idiosyncratic factors that impact each individual cycle making it impossible to simply implement the same playbook that was used in the past. However, a healthy appreciation of where we have been, while continuing to look to where we may be going, can provide useful guideposts in setting expectations for likely scenarios for the future.





Asset valuation theory

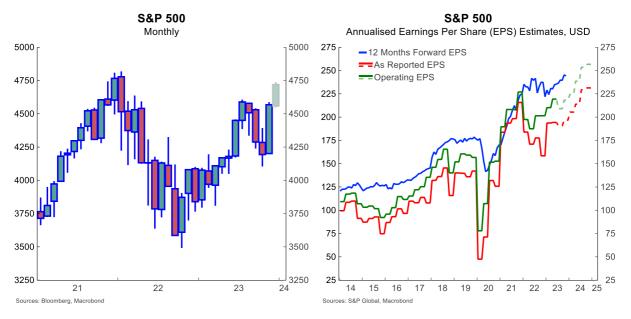
The present value of an asset reflects the sum of expected future cash flows, discounted by an appropriate discount rate. The discount rate accounts for a range of factors, including the risk-free interest rate. Government bond yields, such as the US 10-year bond yield, typically represent the (nearly) risk free portion of discount rates. Risk premiums above those rates reflect the market's assessment of the additional perceived risk of the particular asset class.

As such, in an environment of falling interest rates, a reasonable expectation would be for asset prices to rise, all else being equal. However, all else is never quite equal. Other factors can impact both the numerator of the net present value calculation (i.e. expected cash flows) or the risk premium (i.e. spread above risk free rates).

Despite all else not being equal, it is helpful to consider the historical performance of different asset classes in the year before and after the final Fed meeting where a hike was announced and where subsequently, the Fed funds rate hit a peak. As we have entered a new stage in this cycle, this can help inform our expectations of what may lie ahead.

US equity market

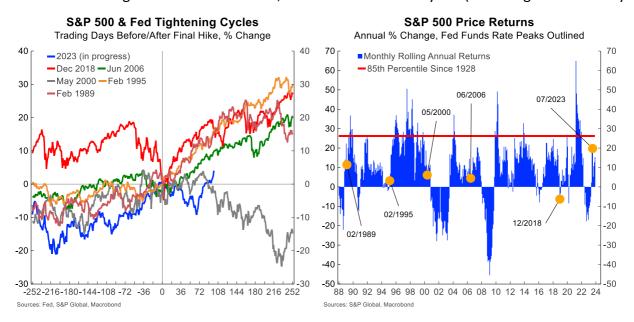
The S&P 500 has rallied strongly over the past two months. This reflects the falling risk-free rate and greater expectations of cuts in 2024 and beyond. At the same time, earnings per share (EPS) outcomes have remained strong as growth has surprised to the upside and the probability of the US entering recession declined. Analyst expectations for EPS over the next 12 months have also remained robust. This implies that analysts don't expect a significant reduction in earnings despite an expectation that economic growth is likely to slow as tight monetary policy impacts activity.



A combination of higher earnings expectations and lower discount rates is a clear catalyst for the strong equity returns that have played out recently.

What does this all mean for equity returns in 2024?

To gain some insights, we can consider equity returns during previous Fed tightening cycles. Specifically, assessing returns one year either side of the final Fed meeting where a hike was announced. Going back to the late 1980s, we have five distinct cycles (excluding the current cycle).



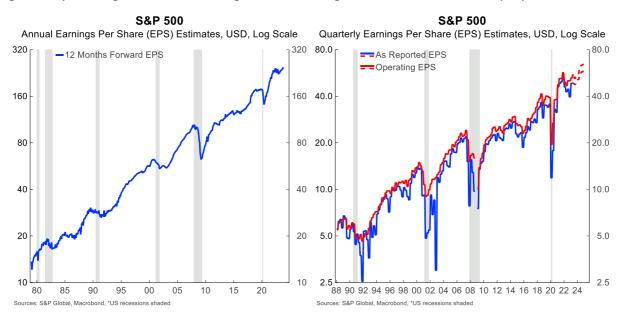
Four of the previous five tightening cycles (excluding the current cycle) exhibit similar characteristics after the Fed funds rate peaked. Specifically, the S&P 500 (price index) returned between around 15% and 30% in the 12 months after the final meeting announcing a hike.

Importantly, not only were returns positive over the next 12 months, but they were high relative to average annual returns for the S&P 500 going all the way back to 1928. Specifically, following three of the past five peaks in the Fed funds rate (excluding the current cycle), the monthly rolling annual return at some point over the next 12 months moved into the top 15% (i.e. above the 85th percentile) of monthly rolling S&P 500 annual returns since 1928.

The periods where this didn't occur – 2000 and 2006 – coincided with sharp declines in US and global stock market returns over the next few years due to the dot-com crash and the Global Financial Crisis (GFC), respectively.

One thing to note is that EPS during these periods were impacted in a sharply negative way – particularly during the GFC – as actual outcomes and expected future outcomes were downgraded. EPS estimates were also negatively impacted during other periods, but not necessarily to the same extent. This goes to show that it is not only what is happening to the denominator (i.e. the discount rate) of the present value calculation that is important to equity valuations. What is happening to the numerator (i.e. expected cash flows) is also key.

This is an important point for the current cycle, as expectations are for EPS remaining healthy. This coincides with expectations that the likelihood of a 'soft landing' is increasing – i.e. inflation gradually coming back down to target without a significant rise in the unemployment rate.



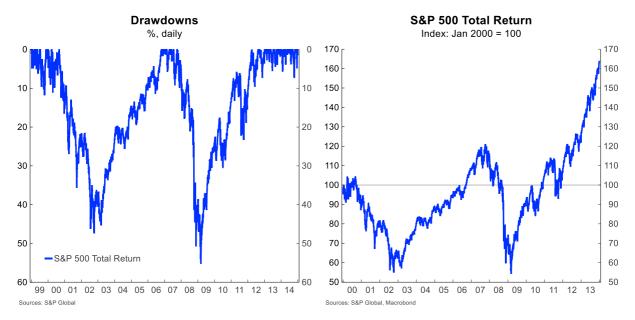
Despite the period following June 2006 being weaker than the others, the monthly rolling annual return did still hit 20.5% 11 months after the peak. While not in the top 15% of returns, this was in the top 25% (i.e. above the 75th percentile) of monthly rolling annual returns since 1928 – not too shabby.

While not exhibiting a 100% hit rate, these occurrences represent strong annual returns following previous cycle peaks and align with the theoretical impact of falling discount rates on valuations. Markets begin to price in lower discount rates once it becomes clear that policy rates rate have peaked (or are about to).

The 2000 period is the notable exception. Despite the Fed funds rate peaking in May 2000, stock market returns were negative over the next 12 months as the dot-com crash dragged down equities valuations and the S&P 500 entered a prolonged period of negative or near zero returns.

In fact, after peaking in early September 2000, the S&P 500 total return index (i.e. including dividends) didn't surpass this level until November 2006. Shortly thereafter, the market was rocked by the impacts of the GFC and returns were again sharply negative in the years that

followed. The 10-year period between 1999 and 2009 is often referred to as a "lost decade for stocks" as returns on the S&P 500 (including dividends) were effectively zero for an entire decade. As a matter of fact, total returns for investors in the S&P 500 who were unfortunate enough to invest near the peak of the dot-com bubble didn't become meaningfully positive until the market entered a prolonged bull run from around 2012.



Importantly, while living through the cycle, it is impossible to know whether the latest hike will be the last one. We can only know this in hindsight. As a result, it may take time for updated expectations around discount rates to be fully reflected in market prices, as market participants seek to price the probability that the latest hike will indeed be the final one. Therefore, the recovery in prices doesn't necessarily occur exactly when the final hike is announced. Instead, it may occur before or after this point and will depend on the circumstances at the time.

This dynamic appears to have been very important during the current cycle. The Fed last hiked rates on 27 July 2023. However, the S&P 500 remained weak until mid-October. This weakness coincided with sharp movements higher in US bond yields. Bond rates — and real yields in particular — moved higher between July and mid-October — when the US 10-year bond rate breached 5% for the first time since before the GFC. This was despite the Fed funds rate remaining on hold during this period.

Uncertainty around whether the July hike would prove the final one remained high and other pressures also impacted longer-term yields. After a run of softer-than-expected data suggested that the risk of further hikes was negligible, financial markets quickly moved to an assessment that rate hikes were over and instead started to focus on the extent of the cutting cycle in 2024. The uncertainty around the trajectory of short- and long-term rates – and the potential impact on the US economy – between July and October likely goes a long way to explaining why equity prices took longer to rally during this cycle compared to the previous five. Put simply, it took markets longer than in previous cycles to become confident the most recent hike was in fact the last.

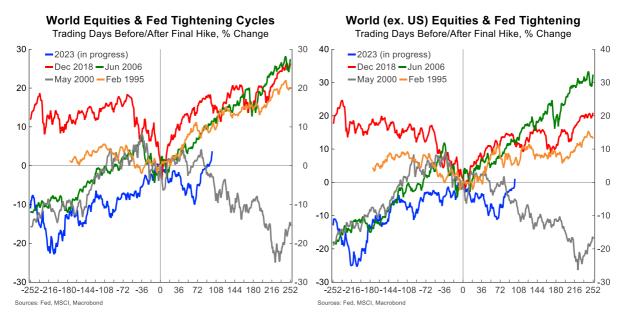
As noted above, in three of the past five hiking cycles, equity returns at some point over the next 12 months following the final hike reached 26.2% or more – i.e. in the top 15% of annual returns since 1928. For this to occur following the final hike in this cycle (i.e. between December 2023 and July 2024), the S&P 500 would need to rise to 4,900 points by December (at the earliest) and 5,800 points by July 2024. Due to base effects, the levels needed to be hit to generate a 26.2% or more annual return depend on the month in which this occurs. This implies a lift from current levels of between around 3% and 23%. Only time will tell whether the crystal ball proves to be prophetic.

International equity markets

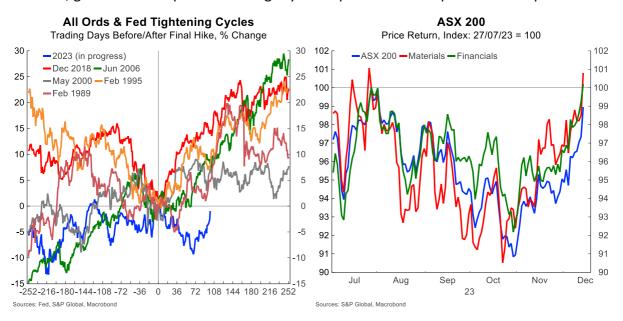
The US economy and monetary policy settings remain incredibly important to the global economy, corporate profits, and subsequently, global returns on risky assets.

As the old saying goes, "when the US sneezes, the rest of the world catches a cold". While the US share of global GDP may be gradually declining, this statement still rings true.

Given this, the patterns that are exhibited in US stocks following a peak in the Fed funds rate can also be observed in other risky assets, such as global equities.



The historical performance of global equities (including the US) and global ex. US equities around Fed tightening cycles has been strongly related. This cycle has proven no different. Global ex. US equities have performed strongly since mid- to late-October, in line with the rise in US equities. However, global ex. US equities have slightly underperformed compared to US equities.



What about Australia? The Australian market has underperformed the US and global markets so far since the Fed's last hike in July. Indeed, over 2023, the Australian market has underperformed the US market. One of the factors impacting this is that tech stocks, which make up a significant portion of the US market, have been major drivers of returns through 2023. On the other hand,

the Australian market has very little exposure to tech stocks. This trend is also evident in other developed markets, which typically have less exposure to IT than the S&P 500.

As tech companies tend to have 'growth' characteristics with profits far into the future, their share prices can be more impacted by changes in interest rates. The financials (i.e. banks) and materials (i.e. miners) sectors are the largest on the Australian market – together representing over 50% of the index. Stocks in these industries tend to exhibit 'value' characteristics and their profits are often more near term. Thus, they are relatively less affected by changes in interest rates than IT stocks.

Additionally, expectations around Australian interest rates have not shifted as aggressively as expectations for rates in the US and other countries. Interest-rate markets expect that the RBA is done with rate hikes. However, they are expecting less aggressive cuts in 2024 and beyond. For instance, interest-rate markets currently expect around 2.2 cuts from the RBA through to the end of 2024, compared to around 6.0 cuts by the Fed. These factors have also impacted stock returns over recent months.

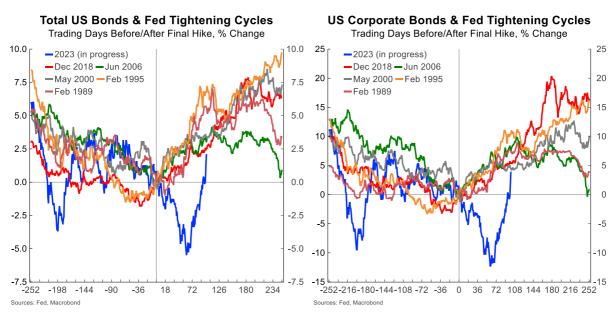
Bond returns

The relationship between bond prices and interest rates is more directly observed than between equity prices and interest rates. Bonds have a known life (while equities are theoretically perpetual) and the expected income earned from bonds is easier to pin down than for equities.

The main factors driving bond prices are interest rate risk and credit risk.

If interest rates rise, bond prices fall, and vice-versa. Bonds with a longer term to maturity are more exposed to interest-rate risk than bonds with a shorter term to maturity.

Over the past five Fed tightening cycles, bond returns for both the total US bond market (proxied by the Vanguard total bond market index fund) and for US corporate bonds (proxied by the Vanguard long-term investment grade fund) were poor ahead of the final hike in the tightening cycle. This reflected the increase in interest rates, thereby leading to capital losses for bond investors. After the final hike in the cycle, bond returns became meaningfully positive, as markets became more convinced that the next move in rates was likely to be down and bond prices rose.



Like with the experience in equities, this cycle appears to have been delayed slightly. Bond returns continued to fall even after the Fed's most recent hike. This reflected expectations that interest rates would remain higher for longer and greater uncertainty around the future trajectory of

interest rates. These expectations have now unwound, and investors are more confident in next move in interest rates, supporting bond prices.

Bond returns reflect both the yield and capital gains/losses. Some portion of investor portfolios will mature at a given point in time and be reinvested into new bonds at the prevailing market rate. Additionally, coupons will be reinvested at the prevailing rate. In an environment of rising rates, short-term capital losses will be incurred. However, maturing bonds will be reinvested at higher nominal rates, helping to increase the portfolio's return in the long run.

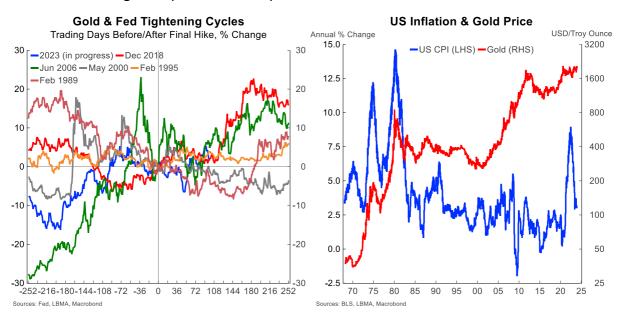
Active investors may try to capitalise on these swings in capital value to increase their return. For passive investors who don't intend to realise short-term gains/losses, the portfolio return will adjust over time as bonds held to maturity trend towards their par value.

What about gold?

Like other commodities, gold doesn't generate dividends or yield and has a zero real expected return over time. As an investment asset, gold is typically used as a hedge again risk or inflation, or for speculative purposes. The opportunity cost of holding gold rises with higher rates as the amount of forgone interest increases.

Academic evidence supports its use as an inflation hedge over very, very long time horizons (i.e. hundreds of years). However, the volatility is considered too great for it to be a reliable inflation hedge over shorter horizons. Despite this, it continues to garner significant attention as an inflation hedge and safe-haven asset.

The performance of gold around Fed tightening cycles has been more volatile and uncertain than equities and bonds. This may reflect its use as a speculative asset and for hedging purposes rather than to earn a long-term positive real expected return.



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