



Investing and risk management in a world of shifting and unstable cross-asset correlations

Key points

- We have written previously about the notion of regime change, and its utility as a framework in which to make sense of the many changes taking place across economics, politics and ultimately, financial markets. In our view, these shifts are both significant and likely to endure.
- At the same time, the policy environment is changing too. Central banks are likely to face into both demand- and supply-side shocks in the new regime, which has different consequences for monetary policy. That this is occurring at the same time as central bank independence is being tested in some jurisdictions only amplifies the challenges.
- One important consequence of these changes relates to the stability and directional characteristics of cross asset correlations. Many fundamental assumptions that investors and risk managers have taken as constant appear to be changing as we transition into a new regime.
- In our view, this is consequential for both portfolio construction and risk management practices, and hence the topic of this note, jointly written with our colleagues in the JBWere & NAB Private Wealth CIO Office.
- For portfolio construction, the most significant changes relate to correlations between government bond and equity market performance and AUD/USD and US equity market performance. These changes are likely to force (for local investors) a reassessment of optimal USD growth asset exposure and hedging levels, as well as a consideration of new or “alternative” defensive assets.
- For other financial participants, there is much to absorb. At a minimum, the cost of hedging will rise, and scenario analysis will need to envisage a wider range of outcomes. A more de-synchronised global economy will influence cross market correlations and perceptions of both counterparty and sovereign risk.

Regime change and unstable asset correlations

Investors are grappling with many issues at present. One key consideration is whether the changes to US trade policy, European fiscal policy, US security arrangements and higher debt loads on DM public sector balance sheets are simply short-term consequences of a relatively disruptive White House incumbent. Alternatively, investors may need to consider whether there are signs of longer-lasting changes in the global economic and political order.

We are sympathetic to the notion of regime change and see these changes as likely to be more lasting in their impact on economic and political outcomes. This is significant for investors, because it underscores the likelihood of lasting changes in financial markets. We wrote about some of these longer-term implications in a recent note; see [here](#).

While some of the anticipated changes in relative asset prices might simply resemble longer-term mean reversion (for example, expected USD under-performance over the next few years), others have the potential to be quite significant for portfolio construction, hedging, risk management and more broadly, any capability which has historically relied upon consistent correlations between financial variables.

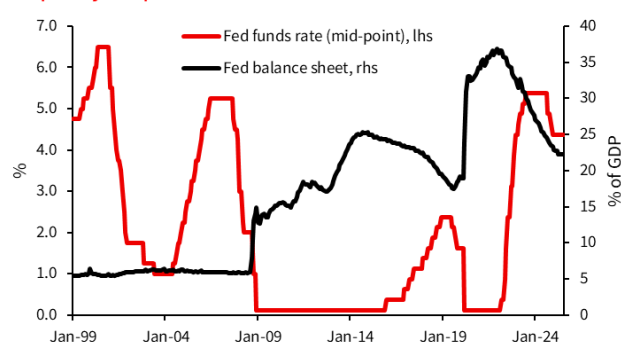
In this note, we look at what might drive shifts in correlations, and why investors and others should give some consideration to these issues.

Our basic thesis is that the nature of shocks impacting economies and financial markets have broadened, in large part due to a regime shift that may have begun around 2016. This was the year of Trump 1.0 and the ascendancy of the MAGA movement, along with Brexit in the UK. COVID, the pandemic policy response and its aftermath, alongside Trump 2.0 more recently, have all been accelerants of the shifts we discuss below.

Demand-side shocks vs. supply-side shocks

For the last three decades investors (and policy makers) have become very accustomed to managing shocks that have emanated from the demand side of the economy. The response in the early 2000s to a number of demand side shocks was to cut the policy rate to 1% and to leave it at that level for a year. In 2008, the policy response was to cut the policy rate to near zero, leave it there for seven years, and to print money (quantitative easing). And in 2020 the policy rate was once again cut to near zero, with more quantitative easing and this time, large fiscal easing too.

US policy responses



Source: Bloomberg and NAB.

We argue that in the current regime, resilience only to demand shortfalls may no longer be sufficient. In addition to demand side shocks, investors will increasingly need to consider more regular supply side shocks going forward, in our view. These are quite different; not just in their nature, but also in the response they elicit from policy makers and the impact they have on financial market behaviour.

The low and stable inflation regime of the post GFC world is no longer, in our view. This means that central banks are likely to face short-run trade-offs on their dual mandates more frequently than was the case in the prior regime. The dilemma facing the Federal Reserve at present – facing the possibility of both rising unemployment and rising inflation – is a real-time example of this dynamic.

The greater potential for supply chain shocks – either because of higher frequency extreme weather events or disruptions to intermediate production and transport due to more restrictive immigration, increasing trade barriers, and the revival of Western military industrial complexes – means that investors will likely need to become

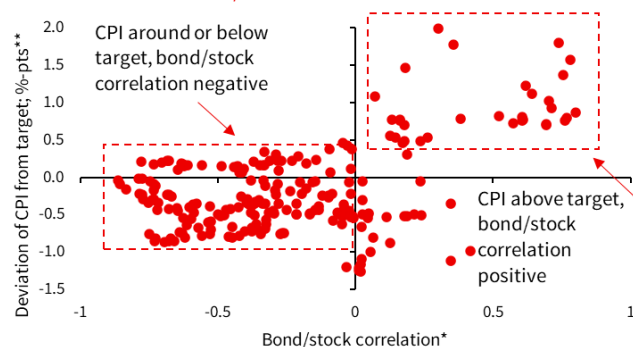
accustomed to more regular episodic inflation, short-lived or otherwise.

This has implications for portfolio construction, because supply-side inflation often forces a shift towards a more positive (or less negative) correlation between stock and bond returns. For multi-asset portfolios fundamentally premised on a negative correlation between the two, this may prove problematic.

The low and stable inflation environment of the prior regime (particularly post-GFC) allowed central banks to focus on the labour market aspect of their dual mandates. When demand shocks threatened growth, central banks moved aggressively to protect the downside for fear of inflation falling further below target.

Unsurprisingly, **stock/bond correlations were quite negative through this period** – weak growth drove under-performance in equities, but also, it generated a quick response from central banks which boosted the value of government bonds.

US core CPI vs. bond/stock correlation



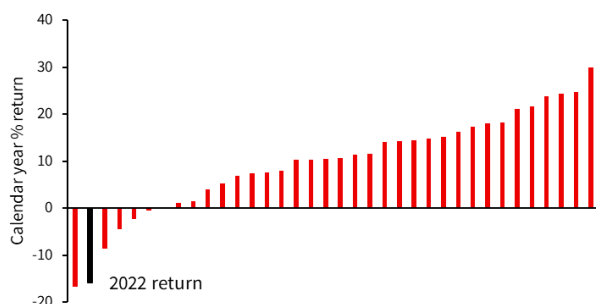
Source: Bloomberg and NAB. * Calculated as 12-month rolling correlation of 1-month returns. ** 12-month moving average.

The chart above shows the deviation of US core CPI from target, plotted against bond/stock correlation in the US since 2005. Most of the observations fall into the “low inflation / negative correlation” quadrant and occur in the prior regime. Many fall into the “high inflation / positive correlation”, and some fall into the “low inflation / positive correlation” quadrant. Going forward, if our thesis is right, we would expect to see more observations in the top right quadrant.

Investors and portfolio managers will no doubt remember the difficulties of 2022, as financial markets absorbed a difficult combination of softening growth, elevated inflation and rising interest rates. The behaviour of equity and bond markets in that period – and the poor performance of a simple multi-asset portfolio during the year – are a case in point.

To refresh, some statistics: 2022 was the second worst calendar year performance for a 60/40 portfolio of US stocks and US treasury bonds in 35 years (see Chart). In the sample period, there are seven years where the calendar return was negative. 2022 was the only year in these seven when both asset classes returned negative returns. In each of the other six, it was only either stocks or bonds, but not both, that delivered a negative return.

Distribution of 60/40 portfolio return, 1989-2024



Source: Bloomberg and NAB.

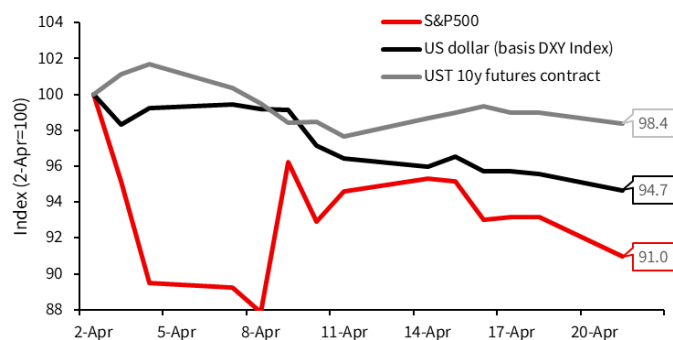
Other drivers of shifts in asset correlations

In addition to the playbook for central banks now looking more challenging and the higher probability of supply-side disturbances, we should note that **financial markets are also absorbing a series of shocks that are both novel and impactful for correlations between different asset classes and geographies**. For example, so far this year investors have had to absorb significant shifts in US trade policy, threats to the independence of the US central bank, a re-shaping of global security alliances and a White House Administration that is willingly disruptive. Europe has also been busy in the background.

These additional unconventional shocks are forcing historically unusual outcomes in market behaviour. For example, the reaction to “Liberation Day” tariffs in April saw simultaneous declines in US government bonds, US equities and the US dollar. Much of the relative underperformance has been sustained through the more recent market recovery.

This unhelpful trinity must have come as a big surprise to most US investors. It would not be much of a surprise, however, to emerging market investors. They have seen it plenty of times before—it is driven by capital outflow.

US Bonds, stocks and FX post Liberation Day



Source: Bloomberg and NAB.

It seems probable non-US investors will continue to reassess whether current levels of exposure in portfolios are appropriate in the new regime.

Such re-assessments don’t necessarily have to lead to large-scale divestiture of USD assets, but they may increasingly lead to a more balanced re-allocation of future capital deployment to other geographies. That alone could be impactful to future asset performance and correlations, in our view.

Another source of uncertainty for historical correlations includes the pressures on institutions fundamental to the efficient functioning of US financial markets at the moment. Whether they be central banks, regulators or statistical agencies, there are genuine questions for investors to consider around the impact of political overreach. While it might be difficult to predict what impact this might have on financial market variables and correlations, at a minimum it should see more risk premia in US asset prices relative to other jurisdictions.

A word on US exceptionalism

One of the well accepted investing tenets of the old regime has been that US growth is ‘exceptional’. This is particularly so relative to G3 peers (that is, the EU and Japan). The US has had better demographics, stronger levels of investment and better growth in consumption. One possible explanation for the out-performance is that these dynamics reflect the “profit and loss” impact; not the balance sheet.

In other words, the US has geared up the balance sheet to spend more today, rather than in the future. At an accumulated 80% of GDP, the US’ current negative net international investment position is the largest ever. Foreigners, on net, own more than \$US 20 trillion of domestic US assets. In the early days these were mostly Treasuries, but

increasingly flows have been directed to owning equity in large US corporates, particularly in the technology sector but also into direct property, infrastructure and other real assets.

It is plausible that the biggest drivers of the US' relative exceptionalism were three-fold. First, the **US population grew much faster** – in large part because it ran much higher levels of immigration (both legal and otherwise). Second, the US outspent everyone on **fiscal expansion**. Third, **US productivity growth** has been superior.¹ **In our view, some of these core drivers of relative exceptionalism are unlikely to be so consequential in the new regime.**

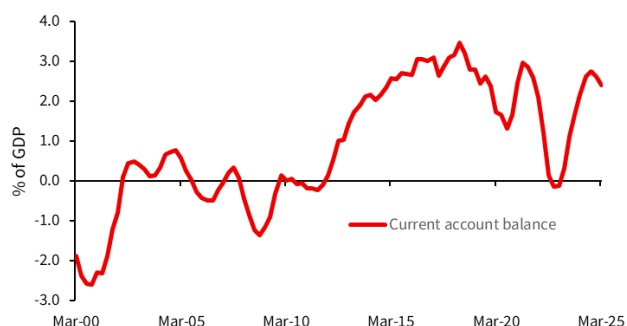
Another major driver of recent global change has been the outlook for European investment and fiscal expansion, especially within the historically ultra fiscally conservative Germany. This change has been driven first by the Ukraine War and then more recently by Trump's drive to get NATO to spend more on Europe's own defence capabilities.

Some estimates of the long-term bill for European re-armament – dependent on what increased percentage of GDP is allocated to related defence and infrastructure, and over what timeframe – are very large. If the EU increases spending by ~2% of GDP, this amounts to an additional \$US 400 billion per annum for many years. The next question many are asking is how the Europeans will fund this investment. Investors are assuming, as per the US model, that the EU will issue joint and several bonds and flag the possibility that the ECB will be a major buyer of them through its printing press.

It is worth noting that Europe is a large surplus creditor; historically it has saved much more than it has spent. Much of the savings have been invested in the US. According to ECB data, the Eurozone has accumulated, on net, around \$US10 trillion in USD based assets. Of this total, around \$US2 trillion is held in US bonds, and about \$US8 trillion in US equities. Might it not be the case that some of this capital could fund a pending expansion on their own continent? If so, this would have significant implications for investors.

¹ While many observers point to a more dynamic US economy and leadership in the technology space as drivers of the productivity out-performance, it could be

Euro-zone: A creditor region since 2012



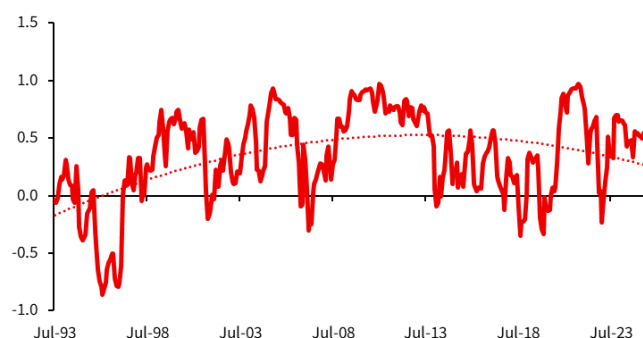
Source: Bloomberg and NAB.

Local implications

For Australian investors, as was evident earlier in the year, a significant outcome of the new regime might be a more muted (or perhaps even stronger) \$A at times when risk assets under-perform. This runs counter to the prevailing wisdom (and historical experience) that the \$A is a proxy for risk – rallying when global growth accelerates and growth assets outperform and falling when global growth slows and risk assets decline.

Correlations under the prior regime provided Australian investors with a unique “cushion” to portfolio performance when US equity markets experienced a drawdown; if exposures to US equities were unhedged, then the decline in the AUD/USD would work to offset some of the losses from falling equity prices for a local investor.

Correlation* between AUD and S&P 500



Source: Bloomberg and NAB. * Correlation is rolling 12-month correlation of 6-month returns in AUD/USD and the S&P 500.

If sustained, this shift in correlation is more than just a curiosity – it has meaningful implications for the diversification benefits that unhedged exposures to US equity markets bring to a portfolio for an Australian investor. This is

argued that a portion of the strong productivity outcome has been due to some of the fiscal largesse helping to boost the numerator in productivity calculation.

because the \$A may no longer cushion portfolios from drawdowns in US equity markets. It is possible, therefore, that two of the key tenets of portfolio construction may require a rethink; not just the correlation between defensive and growth assets, but also the correlation between the \$A and each of these asset classes. **These are significant issues for Australian superannuation funds that now have large USD growth assets** (particularly US equities) in portfolios that are only partially FX-hedged.

For investors, the important decision tree is therefore probably twofold. First, what exposure to hold in conventional government bonds, and if those are now partially inadequate, what to substitute in their place. **Second**, what allocation to make to USD assets and how much to hedge.

We would make the following high-level observations on portfolio construction given the risk that historical correlations don't sustain in the new regime:

- **A regime defined by greater macro-economic volatility implies greater financial market volatility too.** In a world of higher realized volatility, risk premia across most asset classes need to reprice if risk-adjusted returns are to remain broadly unchanged.
- If the primary risk in balanced portfolios is no longer limited to growth shocks but also (together, or in isolation) episodic inflation breakouts, then **it will be necessary to substitute some of the traditional bond component of portfolios with more inflation resilient defensive alternatives.** These may include exposures such as inflation-linked bonds, gold, and other commodity and real asset exposures.
- **On the growth side, the drivers of US exceptionalism and consequent outperformance may be dwindling (or reversing), warranting lower allocations to US assets in favour of other regions.** In addition, the US Dollar is probably in the process of ceding its role in portfolios of being negatively correlated with risk. This implies higher FX hedging demand for foreign capital.
- **Finally, the new regime is likely to demand more active portfolio management.** The post-GFC explosion in assets allocated to passive investment options (indexing) worked very well in the old regime. Everything broadly appreciated in value, and key correlations were both negative

and stable. Some 70% of global DM equity capital now sits in the US alone. At 4% of the world's population and 26% of its GDP (or less on a PPP basis), the new regime may test these passive allocations of capital.

For other financial market participants who are not necessarily investors but perhaps borrowers, lenders, traders, financial market regulators or hedgers, there are some important ramifications of shifting or less stable correlations. In short, we believe that:

- **Structurally higher levels of financial market volatility mean that the cost of hedging will be higher** than otherwise would be the case. Note this conclusion is valid regardless of whether correlations shift.
- **In a multi-polar world (the new regime), there is likely to be less synchronization of country- or region-specific business cycles.** This implies that cross-country correlations within an asset class and across asset classes will shift.
- **Assessment of counterparty risk may require consideration of not just corporate credit risk, but also any sovereign risk** associated with the primary location of the counterparty.
- **Scenario analysis will need to broaden to include a wider range of financial market outcomes** for any given risk scenario. In a regime in which national interest and national security dominate policy making, should we assume that all policy makers will co-operate for the greater good in times of financial market stress, or will some choose to go it alone in the interests of national security?
- **Individual risk exposures will need to be reassessed** in a world of less stable and / or different correlations, and will also need to factor in the impact of a less synchronized global business cycle.
- **Institutions with superior risk management capabilities are likely to have a comparative advantage in the new regime.** Likewise, optimizing supply chains for resilience (rather than cost) will be important.

Why might we be wrong?

The above analysis outlines a scenario where – in a new and quite different political and economic regime – economies subject to more frequent (negative) supply side shocks drive meaningful changes in cross-asset correlations. But there are other possibilities to contemplate; for example, **if AI**

turns out to be the boon for productivity growth as many expect, then we might instead be considering the impact of a (disinflationary) positive supply side shock for the global economy. This would likely see correlations between growth and defensive assets resume their historical characteristics, and moreover, not deter investors from rethinking allocation to US equity market exposure.

It may also prove prudent to be skeptical of the anticipated European fiscal expansion. Certainly, German fiscal policy will loosen, but the outlook for fiscal easing in other major European economies is less assured (for example, France and Italy given their respective fiscal constraints). We should also acknowledge the challenges for the Eurozone to overcome structural constraints on growth including a declining working-age population, rigid labour markets and an historically slow adoption of new technologies.

Conclusion

Our previous publication discussed some of the long-term implications of regime change. This note looks at the implications of regime change for both the direction and stability of important cross-asset correlations.

In a world where supply-side shocks will likely be more prevalent, financial market participants will need to be mindful that historical relationships between asset price performance may no longer be an appropriate foundation for portfolio construction, hedging or other forms of risk management.

Beyond the likelihood of higher frequency supply-side shocks, financial market participants also need to consider the impact of a range of significant shifts: the possibility of waning US exceptionalism, increased European fiscal activity, shifting US strategic imperatives,

rising public sector debt burdens and possibly, challenges to the independence of institutions fundamental to the functioning of US financial markets. It is possible that all or some of these developments will act to undermine the direction and stability of well accepted cross-asset correlations.

Two obvious correlations under threat are those reflecting 1) the negative correlation between equity and government bond performance in a multi-asset portfolio; and **2)** the positive correlation between AUD/USD and the performance of US equity markets. Shifts in these correlations are clearly consequential for investors or portfolio managers running multi-asset portfolios, in that they require a fresh assessment of alternative defensive exposures and / or the appropriate level of USD asset exposures.

Outside of the investment universe, borrowers, lenders, traders, financial market regulators and risk managers should also be cognizant of changes to correlations and more broadly, of a very different financial market environment in the new regime.

The challenge is that while superior risk management capabilities will become a comparative advantage in the new regime, it will also be a more expensive exercise as realized volatility in the macro-economy and asset prices rises.

Authors

Sally Auld

Group Chief Economist, +(61 0) 422 224 752

Glen Bertram

Acting Chief Investment Officer, JBWere and NAB Private Wealth, +(61 0) 404 887 695

Group Economics

Sally Auld
Group Chief Economist
+(61 0) 422 224 752

Jacqui Brand
Executive Assistant
+(61 0) 477 716 540

Global Markets Research

Skye Masters
Head of Research
Corporate & Institutional
Banking
+(61 2) 9295 1196

Australian Economics

Gareth Spence
Head of Australian
Economics
+(61 0) 422 081 046

Michael Hayes
Junior Economist
+(61 0) 411 186 777

Behavioural & Industry Economics

Dean Pearson
Head of Behavioural &
Industry Economics
+(61 0) 457 517 342

Robert De Iure
Senior Economist –
Behavioural & Industry
Economics
+(61 0) 477 723 769

Brien McDonald
Senior Economist –
Behavioural & Industry
Economics
+(61 0) 455 052 520

Thao Nguyen
Economist – Data &
Analytics
+(61 0) 451 203 008

International Economics

Tony Kelly
Senior Economist
+(61 0) 477 746 237

Gerard Burg
Senior Economist –
International
+(61 0) 477 723 768

Important notice

This document has been prepared by National Australia Bank Limited ABN 12 004 044 937 AFSL 230686 ("NAB"). Any advice contained in this document has been prepared without taking into account your objectives, financial situation or needs. Before acting on any advice in this document, NAB recommends that you consider whether the advice is appropriate for your circumstances.

NAB recommends that you obtain and consider the relevant Product Disclosure Statement or other disclosure document, before making any decision about a product including whether to acquire or to continue to hold it.

Please click [here](#) to view our disclaimer and terms of use.