Minksy, the X-Factor and what to watch

- Minsky was an economist who noted how financial excesses could set fire to the real economy.
- A "Minsky Moment" involves the sudden collapse of asset values following a long period of speculation and risk-taking, often fuelled by easy credit.
- But a "Minsky Moment" needs a trigger – the X-factor!
- The X-Factor comes out of left field and can have a big impact on financial markets.
- There are plenty of potential X-factors to watch out for in 2025. But the apocalypse is not inevitable.

A common feature of recent years is the fearless forecasts of impending recession matched only by predictions of imminent financial crises.

The recession boosters have been sadly disappointed. Sluggish economic growth in many economies post COVID does not count as a recession (Chart 1). Especially when that conclusion is teamed up with remarkably resilient labour markets around the world.

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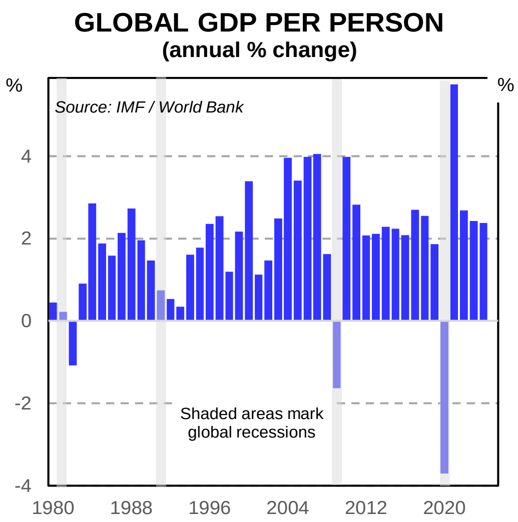

Unemployment rates in key economies remain *below* pre-Covid averages (Chart 2). But, hey, never change a good forecast – it will be right eventually!

The financial crises advocates typically argue we are "overdue" an event. The 2008 Global Financial Crisis was the last major global meltdown. So it has been a while. Economists and commentators occasionally refer to a "seven-to-ten-year itch" for markets. So a crisis is overdue.

But the question of whether we're overdue depends on how you define "overdue". And how financial systems and economies are currently positioned. Financial crises don't occur on a fixed schedule. But they often emerge when vulnerabilities in the system align with triggering events. And they can feed back into economic activity. Financial crises often overlay economic recessions.

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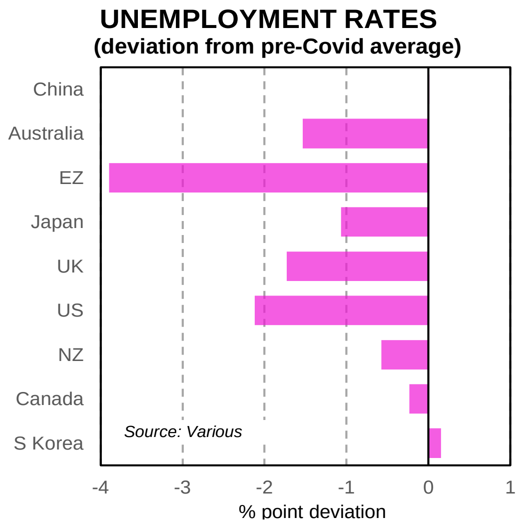

Are we due a "Minsky Moment"?

Hyman Minsky was an economist who noted that financial market excesses often resulted in a burning down of the real economy.

What is now known as a "Minsky Moment" involves the sudden collapse of asset values following a long period of speculation and risk-taking, often fuelled by easy credit.

Minsky argued that stability paradoxically creates the conditions for instability. When times are good, people forget about risks and take on more debt, fuelling bubbles. Financial institutions play along, extending credit and enabling speculative behaviour. Eventually, the system reaches a tipping point where it can no longer sustain the accumulated risks. The inevitable collapse then follows.

The key features *preceding* a Minsky Moment include:

- Overleveraging: Excessive borrowing amplifies risks.

Governments and households around the world are carrying significant debt, encouraged by the extended period of low interest rates. And the tightening in monetary policy settings over the 2021-2023 period created some stresses.

But a global monetary *easing* cycle is now underway. And it is difficult to find wide-ranging examples of excessive credit growth.

Credit growth in excess of the economy's "normal" financing needs (proxied by nominal GDP growth) can flow into asset markets and inflate prices. Credit growth in 2024 actually ran *behind* growth in economic activity (Chart 3).

- Overconfidence: Long periods of stability foster the belief that "this time is different".

PinPoint Macro's "Fear & Greed" Indicator aims to measure investor sentiment. It shows how far away from "normal" levels that sentiment is.

Components include stock price momentum, put-call ratios, market volatility, junk bond demand and safe-haven demand.

The PinPoint indicator was well into "greed" territory for most of 2024 but had retreated to "normal" levels by late 2024 / early 2025 (Chart 4).

- Asset price bubbles: Overleveraging and overconfidence spill over into asset markets, generating speculative bubbles.

Equities were among the better performing asset markets in 2024. Many markets saw significant rebounds, driven by easing inflation concerns, the start of a global monetary easing cycle and optimism about economic growth. P:E ratios in some markets are elevated as a result. Major indices like the S&P 500, NASDAQ, ASX 200, NZ 50 and MSCI World Index sit above pre-Covid averages (Chart 5).

Nevertheless, there are supports for above-average equity valuations. These include resilient corporate earnings, stronger-than-expected economies, increased innovation and productivity gains.

It's always possible to find niche markets where prices exhibit "bubble" characteristics. Recent examples centre on technology and artificial intelligence. The

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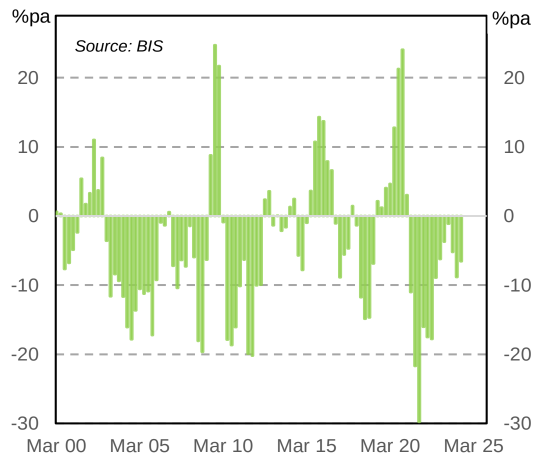
GLOBAL EXCESS CREDIT GROWTH
(credit less nominal GDP growth)



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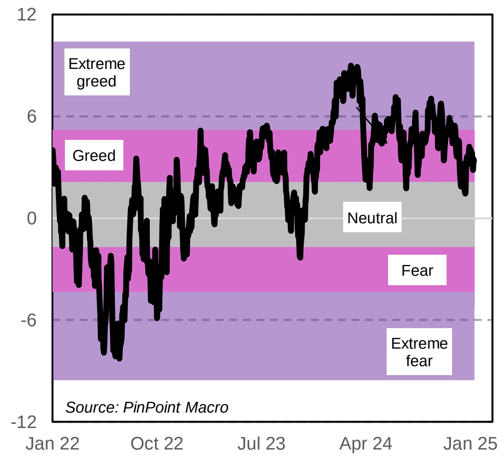
PINPOINT FEAR & GREED INDICATOR
(cumulative Z-scores)



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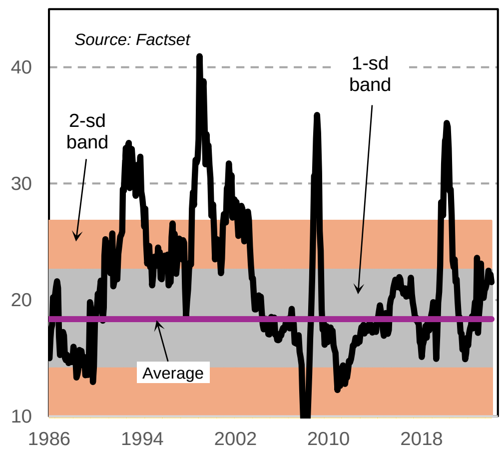
WORLD P:E RATIO



emergence of a wide range of thematic exchange-traded funds (ETFs) is one outcome (Chart 6).

These ETFs have bubble characteristics because the popularity of a theme can drive inflows, inflating stock prices of companies within the ETF. And they often attract retail investors seeking quick gains. But they are typically only a tiny part of the investment universe.

Thematic ETFs offer opportunities to participate in emerging industries. But risk analysis suggests investors should not forget diversified and fundamental-driven strategies to minimise exposure to any thematic bubble.

Any discussion of bubbles must include a look at Bitcoin. Many commentators see the huge increase in prices during 2024 as a classic bubble (Chart 6).

It's reasonable to argue that Bitcoin prices may have run ahead of the underlying fundamentals, like other niche markets. But Bitcoin does have some favourable supply-demand characteristics.

New *supply* is limited. A Bitcoin halving occurs every four years when the reward for mining is cut in half. Halvings reduce the rate new coins are created and lower new supply. The final halving is expected in 2140: Bitcoin supply will peak at 21 million at that point. Nearly 20 million of those coins already exist.

Demand has some upside. Institutions and other investors are incorporating Bitcoin into their portfolios as a long-term asset, signalling growing mainstream acceptance (Chart 7).

Major central banks are yet to embrace Bitcoin as a reserve asset and generally argue against it. But a debate is under way. In the US, a draft bill from Senator Lummis (Republican, Wyoming), is proposing to revalue the gold certificates held on the US Fed's balance sheet to finance a Strategic Bitcoin Reserve.

The Bill proposes the Fed acquire 1 million Bitcoin over five-years (about 5% of global supply).

President Trump is seen as pro crypto.

In the end, Bitcoin's valuation will probably depend on your perspective:

- If you view it primarily as a speculative asset, it may appear overvalued.
- If you consider it a revolutionary form of money and a hedge against inflation, it could be undervalued.

Back to Minsky. There are some key features to look for as early warning signs that a Minsky moment is beginning. These features include:

- A Liquidity Crunch: Investors rush to sell assets, causing prices to plummet and exposing weak links in the system.

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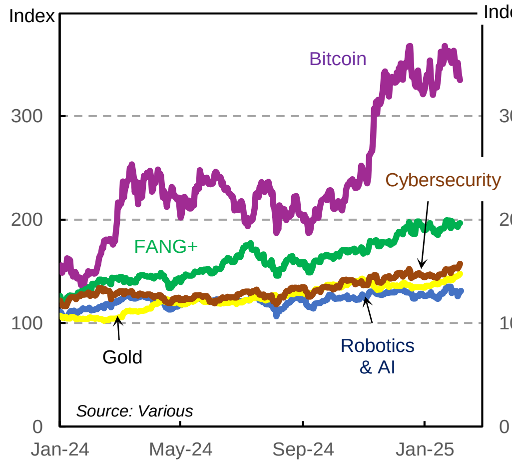
"BUBBLES" IN 2024
(2023=100)



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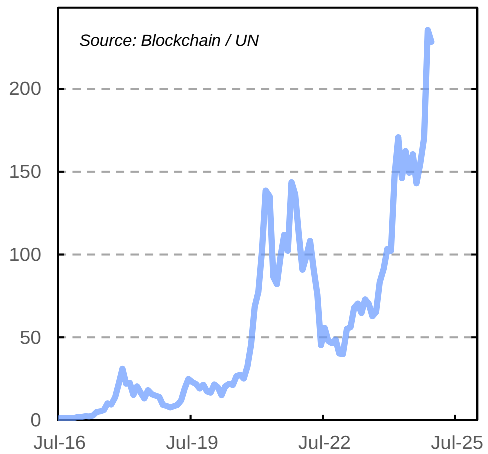
BITCOIN USAGE PROXY
(market cap per person)



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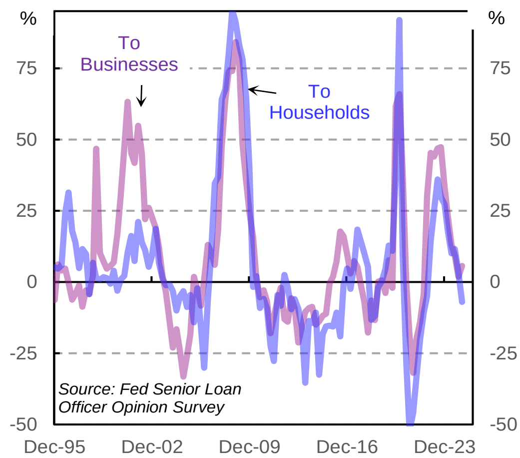
US SENIOR LOAN OFFICER SURVEY
(% of Banks tightening standards))



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There is no sign of a liquidity crunch. A survey of US Senior Loan Offices shows no evidence that banks are tightening their lending standards (Chart 8).

Another survey of US Senior Credit Officers reports that the liquidity and functioning of underlying markets - ranging from high grade to high yield - was improving at the end of 2024 (Chart 9).

- Contagion: The panic spreads, affecting financial markets, institutions, and the broader economy.

Asset allocation surveys of US investors and individuals show little evidence of contagion. Allocations to “safe” assets like cash and bonds are at the lower end of the range (Chart 10). There are no indications of a rush to the exits.

The bottom line is that it is difficult to support arguments of an imminent financial crisis outside of certain niche markets.

That’s not to say we can sit back and relax. As Minsky argued, all it takes is a spark to ignite the kind of cascading panic that he worried about. Once triggered, this panic can spread to otherwise sound markets and across economies.

A well-prepared investor needs to consider potential crisis triggers. And evaluate the risk that those triggers are pulled.

What X-factors are out there lying in wait?

The “X-Factor”

The doyen of Australian financial market economists, Dr Don Stammer, began talking about the importance of the “X-Factor” in 1982. “The Don” has identified his pick for the X-Factor each year since then. Table 1 shows his conclusions over the past decade.

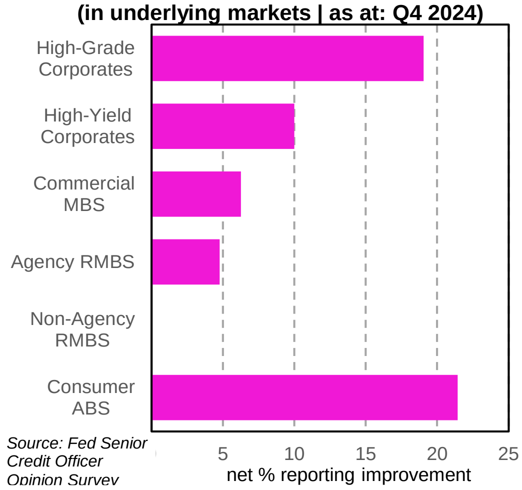
The X-Factor is, by definition, something that comes out of left field. It’s important because it can have a significant impact on financial markets:

- Some are obvious (in hindsight) like the global financial crisis and COVID-19.
- Not all are negative. Positive X-Factors include the floating of the Aussie dollar, The Great Disinflation of the late 1980s/early 1990s and the emergence of China.

What will be the X-Factor for 2025? We will know in 12 months time! It’s inherently unknowable in advance. But the potential impact on financial markets and the economy mean we should think about the possibilities. As every Scout knows – be prepared!

The list of potential X-factors is lengthy. Some have been around for a while. Others are new things we’ve found to worry about. They range from the economic through to the financial and on to the societal/political.

US LIQUIDITY & FUNCTIONING
(in underlying markets | as at: Q4 2024)



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US ASSET ALLOCATION SURVEY
(% of investors)

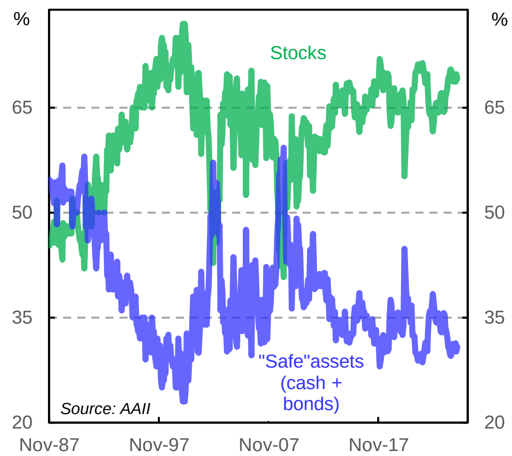

Table 1: The “X Factor”

Year	
2015	Negative nominal interest rates
2016	Trump elected
2017	Global macro influences that restrained volatility and bond yields, boosted equities,
2018	Impact of Royal Commission on financial services
2019	Strong equity markets despite recession fears
2020	COVID-19
2021	Fracturing of view that inflation rates would always remain low
2022	High inflation, tight monetary policy, high interest rates
2023	Tech stock surge and better valuation understanding
2024	US economy defies recession fears (again)

Source: Don Stammer

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Some “X-Factors” for 2025

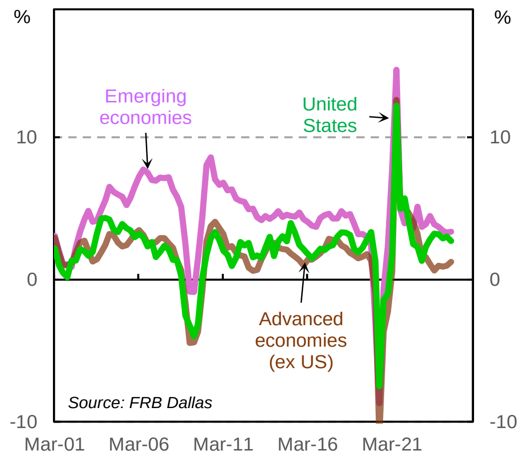
i. Global economic imbalances

A number of economic balances have overshadowed the global economy for some time now.

The uneven economic recovery post Covid is one example. The US economy has surprised with its resilience. European economies and the UK have disappointed (Chart 11). This schism is expected to continue. And it’s a recipe for volatility and risk.

Advanced economies as a group have poor productivity outcomes. This stagnation can reduce potential economic growth rates, restrain real wages, reduce corporate profits and weaken government revenue streams.

REAL GDP GROWTH BY REGION
(annual % change)



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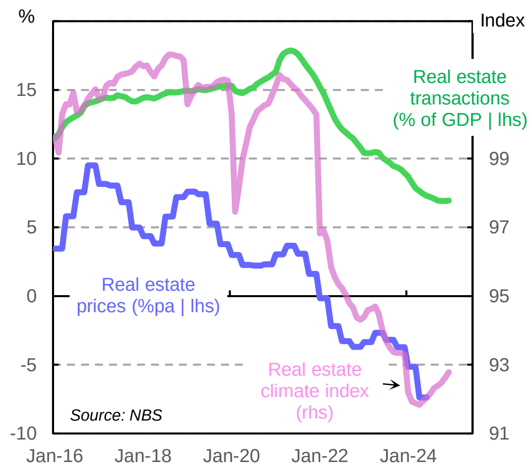
Diminished profit expectations can reduce business capex and drag on equity markets. Governments and business facing revenue shortfalls may struggle to service existing debt, increasing default risks.

Emerging economies are better placed. But imbalances within the Chinese economy are a threat to this grouping. The downturn in Chinese residential construction is central to this threat.

In something of a vicious circle, the severe funding constraints facing Chinese property developers is slowing the completion of pre-sold homes. Home buyer confidence is under pressure, prolonging the falls in real estate prices. In turn, declining real estate activity is hurting local government finances. The problems in real estate are weighing on business confidence and capex (Chart 12). A weak Chinese economy is a downside risk for China’s trading partners, especially Australia.

CHINA CONSTRUCTION INDICATORS



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ii. Economic fragmentation

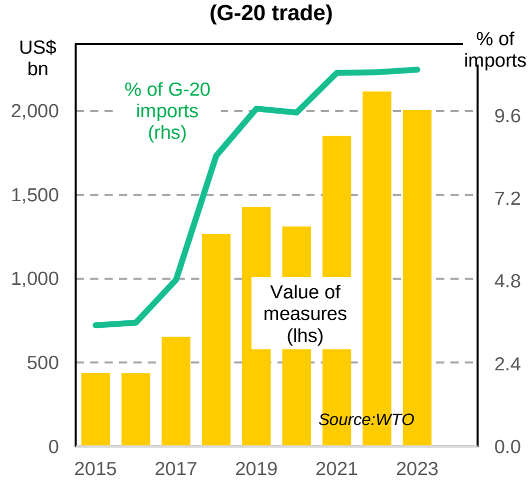
Economic fragmentation refers to the breakdown of globalization as the focus shifts to self-sufficiency, regional alliances and protectionism. It could exacerbate existing vulnerabilities, slow global growth and increase the likelihood of a crisis in interconnected markets.

Any fragmentation of global trade systems, for example, could increase inefficiencies and costs for businesses reliant on international supply chains.

The formation of competing currency zones, based on the Chinese yuan or digital currencies, could disrupt global financial stability.

The splintering of trade partnerships or regional trade wars could result in uneven economic impacts, with some nations benefitting while others struggle. Import restrictive trade measures have increased significantly in recent years (Chart 13).

IMPORT RESTRICTIVE MEASURES
(G-20 trade)



Restrictions on technology sharing between nations (due to security concerns, for example) could hinder 14 global innovation and create inefficiencies in industries like AI, semiconductors and renewable energy.

iii. Policy mistakes

A global monetary policy easing cycle is underway. More than half of a survey of 79 central banks cut interest rates in the final three months of 2024. And expectations are that further rate cuts will occur in 2025.

That said, markets have wound back expectations for the size of rate cuts in the year ahead. US markets expect the Fed funds rate to sit at 4% by the end of 2025. Three months ago the expectation was for rates to fall to around 3½%.

A slowing in the pace of disinflation and resilient labour indicators mean financial markets have prompted a reassessment of the likely interest rate trajectory.

Central banks face the classic policy problem. It is easy 15
to make big inroads into inflation initially. But progress then becomes more difficult. Squeezing the last 1% of inflation out of the system is typically the hardest to achieve.

In Australia's case, the current disinflation cycle is the <u>slowest</u> of those in the modern (post 1990) monetary policy era (Chart 15). Its one of the reasons that the RBA is late in joining the global easing party.

The divergent paths of monetary policy across countries could generate significant movements in exchange rates and capital flows.

Disappointing fiscal outcomes have also been a major risk focus for some time now. And that risk has increased over the past couple of years.

As noted in the December edition of *inFocus*, most countries pursued fiscal consolidation in the post-COVID period. Most countries also failed to achieve 16
that consolidation.

Fiscal cannons have not been reloaded, reducing the ability to deal with future shocks. And monetary and fiscal policies are pushing in opposite directions in some countries.

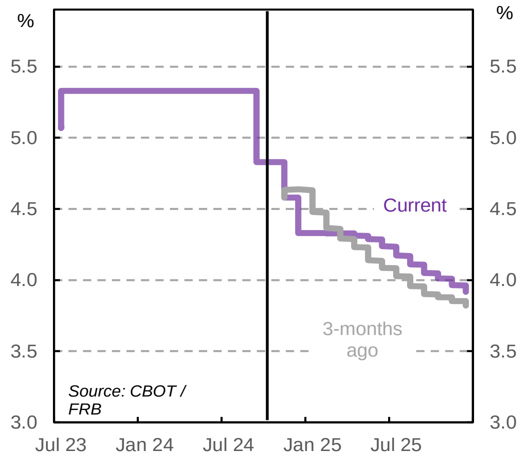
iv. Debt crises

As discussed earlier, many countries are carrying significant amounts of debt across governments, corporates and households. Refinancing this debt brings some significant risks, especially in emerging economies (Chart 16).

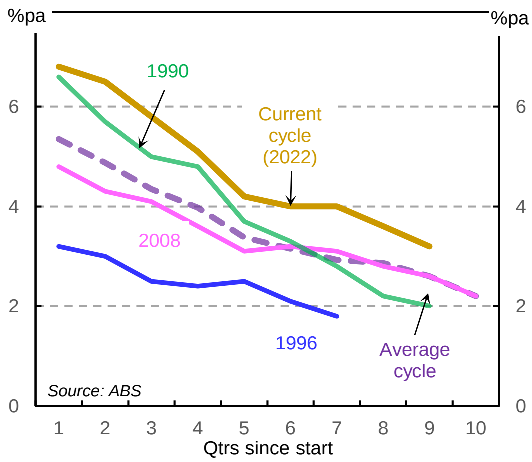
Lower interest rates will reduce some of the potential refinancing strain. But refinancing rates will sit *above* the very low rates that prevailed for any debt issued earlier in the decade. A stronger USD also complicates the refinancing task.

Defaults in one country can have regional impacts, 17
especially in tightly linked economies, amplifying financial contagion.

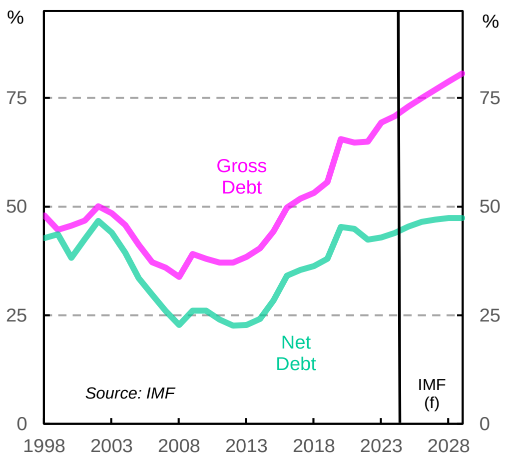
US FED RATE EXPECTATIONS
(CBOT Fed Funds futures | 30-days)



DISINFLATION CYCLES
(trimmed mean CPI | cycles since 1990)



GOVERNMENT DEBT
(Emerging Economies | % of GDP)



Austerity measures imposed by lenders can lead to protests, strikes, and government instability.

Domestic banks holding large amounts of emerging economy debt may face solvency risks, further destabilizing local economies.

v. Banking & financial sector vulnerabilities

Commercial real estate has been a risk focus for a while. The structural shift to working-from-home and online shopping has reduced demand for office and retail real estate. Add on higher interest rates and you and valuations are under pressure.

Commercial real estate prices have fallen by more than 20% from the peak in Europe and the US (Chart 17). Some banks with large exposures to commercial real estate – notably in the US – have suffered as a result. Recent examples include Silicon Valley Bank and Signature Bank (Chart 18).

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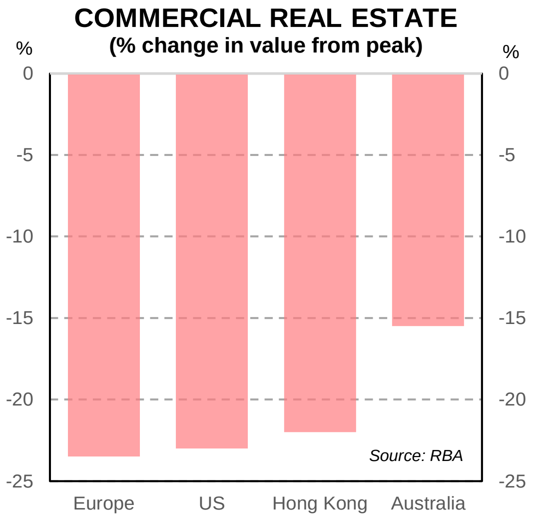

The RBA estimates that nearly US$500bn in commercial real estate debt will mature each year over the next five years. Interest rates may be on a downward trajectory. But, again, financing rates will probably be well above those prevailing at origination.

Commercial real estate prices have also fallen in Australia. But by less than elsewhere (Chart 16). Australian banks are less exposed to commercial real estate than their global peers. And they have maintained conservative lending standards.

Residential real estate is another perennial source of perceived financial vulnerability.

Bank exposure to residential real estate varies across countries. But housing lending is a significant share of bank assets. Australia stands at the top of a global comparison with 66% of total lending accounted for by residential real estate (Chart 19).

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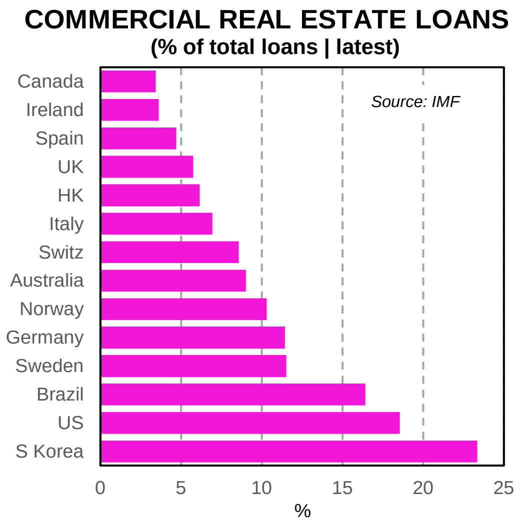


Dwelling prices rose in many countries in response to the period of very low interest rates during the Covid pandemic. These price rises pushed price:income ratios to record highs in some cases (Chart 20). Ratios have generally fallen back since then. But they remain at the higher end of the range.

The Australian market has always been a central target for those that think housing is overvalued.

Its not clear why Australia is the target. Price:income ratios sit at a similar level as in comparable countries (Chart 20) like the UK, Canada and New Zealand.

There is also a strong case to say that the Australian price:income ratio should have increased over time. Much of the increase reflects structural adjustments that won't be unwound.

20

Australia was relatively late in joining the low inflation club. It happened in the late 1990s/early 2000s. That is when the structural step down in mortgage rates occurred. One of the equity arguments put for low inflation is that it would democratise access to credit. And it did. On RBA estimates at the time, lower mortgage rates allowed about 600,000 extra households to access the market for credit. Housing demand increased relative to a supply that doesn't adjust very quickly. The price:income ratio rose.

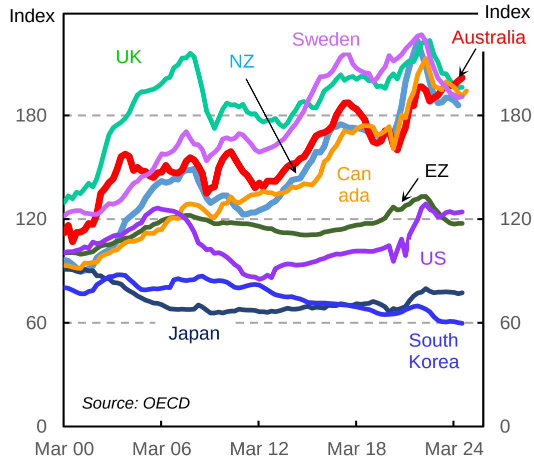
At the same time our housing choice shifted. Houses today are much bigger (so more expensive) than in earlier years (Chart 5). And they are built of more elaborate (so expensive) materials. The "price" part of price:income ratios shifted further.

Bottom line: unless we squeeze some people out of the housing market and go back to living in fibro shacks, the increase in valuation ratios is permanent. Overvaluation arguments are weaker as a result.

The timing may be uncertain. But the other "protection" for the Australian housing market is that the RBA will probably cut interest rates in 2025.

The historical experience over the past 30-plus years is that dwelling prices rise as the RBA cuts interest rates (Chart 21). The lags between the first rate cut and an acceleration in price growth is variable. But, apart from the short-lived easing cycle during the GFC in 2008, prices have always increased.

HOUSE PRICE:INCOME RATIOS
(1996=100)



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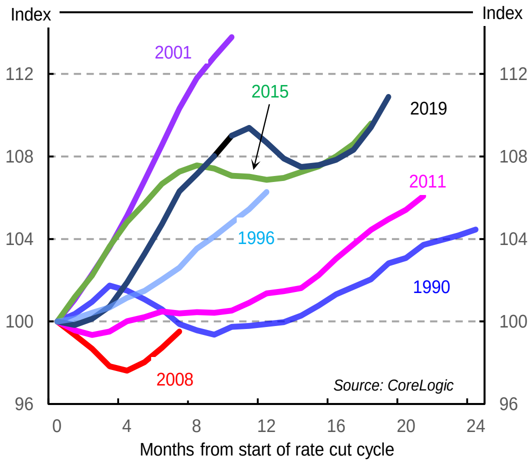
DWELLING PRICES & RBA RATE CUTS
(rate cut cycle starts in month 0 | start=1000



There are some emerging concerns about the "shadow banking" sector. Shadow banking refers to financial institutions that operate outside the traditional banking system. They include hedge funds and other alternatives. These entities provide important liquidity and credit to the economy. Risks relate to regulatory

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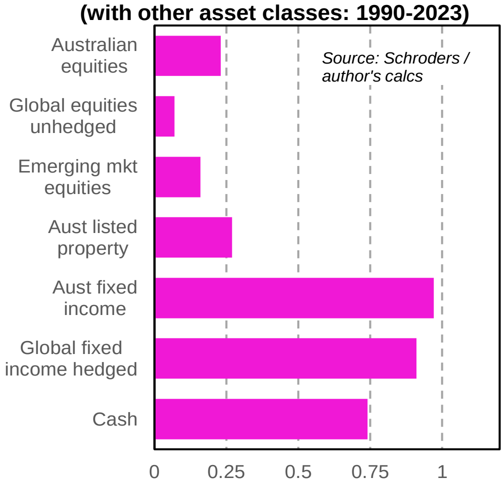
AUSTRALIAN CREDIT CORRELATIONS
(with other asset classes: 1990-2023)



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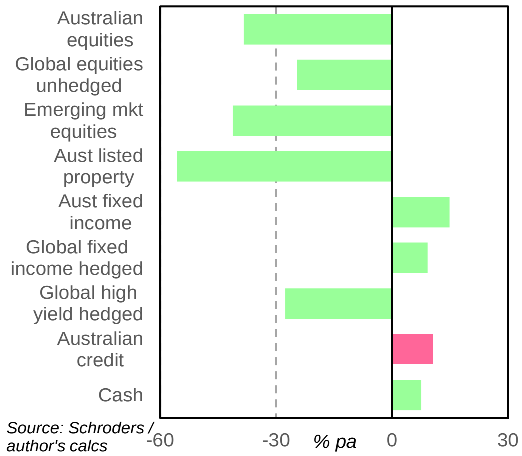
ASSET RETURNS & THE GFC
(in 2008)



oversight, complex structures and leverage.

From an Australian perspective, its clear that alternatives march to a different beat. In particular, the correlation between Australian credit and the more traditional asset classes is quite low (Chart 22):

- The correlation between Australian credit returns and a selection of equity market returns, for example, ranges from 0.07 to 0.23 over the 1990-2023 period.
- The correlation with Australian listed property is also at the low end of the range, at 0.27.

The exception is fixed income, where correlations are high (0.97 for Australian fixed income, for example).

It seems that Australian credit outperforms during periods of downside financial market stress such as the global financial crisis in 2008 (Chart 23).

vi. Geopolitical risks

Measures of geopolitical risk are surprisingly low at present (Chart 24). But the risks are obvious. The Russia-Ukraine war, ongoing Middle East tensions and conflict and Taiwan tensions could all disturb markets.

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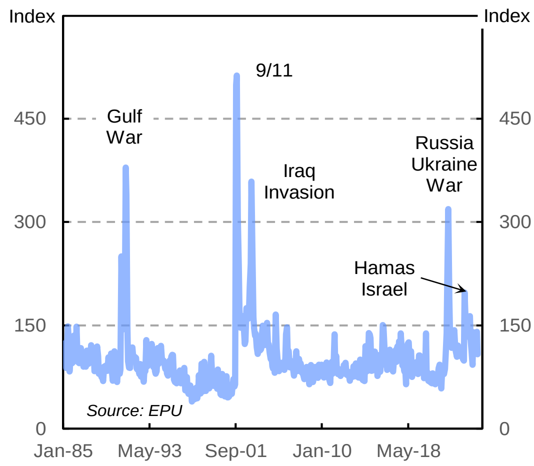
GEOPOLITICAL RISK INDEX



vii. President Trump

President Trump probably deserves his own sub-category as a potential X-factor in 2025. The broad Trump policy agenda is firming up. And there has already been a significant impact on financial markets (Table 2).

The clear "winners" have are Bitcoin, US equities, the US dollar and AI-related themes.

The "losers" are US fixed income, European equities, emerging market equities and, especially, Chinese equities.

Looking ahead, the Trump agenda is poised to significantly influence financial markets through a combination of deregulatory measures, trade adjustments and fiscal strategies.

The positive view of the Trump "plan" has the US economy benefitting from lower taxes, fewer regulations and cheaper energy, making the US attractive for foreign investors.

The more cautious worry that the Trump policy mix will be fiscally expansionary and inflationary.

Table 2: Asset Performance Since Trump Win

Asset class	Ch since Trump win as of 7/02/2025	% change (-5 0 5 10 15 20 25 30 35 40 45)
Bitcoin	42.5	
S&P 500 Growth	9.7	
S&P 500	6.1	
Commodities (GSCPI)	5.2	
Gold	4.7	
S&P Small Cap 600	4.4	
DXY	3.6	
Robotics & AI ETF	3.2	
European Equities	1.3	
S&P 500 Value	1.1	
US High Yield Bonds	0.9	
EM Bonds	0.6	
US Treasuries	-0.4	
Brent Oil	-0.5	
US Investment Grade Bonds	-0.6	
China Equities	-1.3	
US REITS	-2.2	
EM Equities	-3.0	

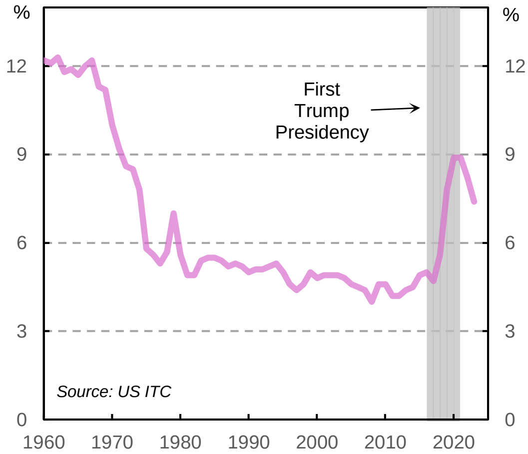
Source: PinPoint Macro, LBMA, Macrobond, MSCI, FTSE Russell, S&P Global, ICE

As a result, some analysts now anticipate that there will be no interest rate cuts in 2025. And there may be rate *rises* towards the end of the year. 25

Outside the US, European countries fear losing companies to the US, attracted by better regulatory environments and stock valuations. China's existing economic issues could be exacerbated by US tariffs, worsening unemployment and debt issues. Higher US tariffs could mean significant trade diversion and instability (Chart 25).

As noted in an earlier edition of *inFocus*, Australia has some protection in this new global backdrop. Australia is one of the few major economies that runs a trade *deficit* with the US. That deficit is running at around $30bn (or over 1% of Australian GDP) at present. We should not be at the front of any tariff firing line.

US TARIFF RATE
(duties paid as % of dutiable imports)

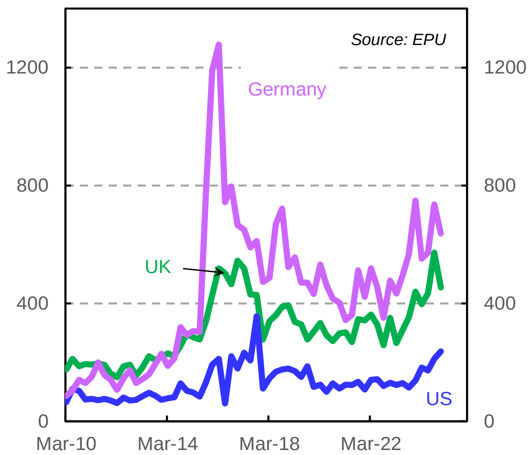


viii. Societal & political instability

Rising inequality, unemployment, or dissatisfaction with governments could lead to protests, strikes, or political instability, particularly in fragile economies. 26

Governments enacting protectionist or populist measures could deter investment, disrupt trade, and strain financial systems. One example is the lift in migration "fears" in the US during 2024 (Chart 26).

MIGRATION FEAR INDEX



As the Financial Times noted, the incumbents in 10 major countries tracked by the ParlGov global research project lost voter share in their national elections during 2024. This is the first time this has ever happened in almost 120 years of records.

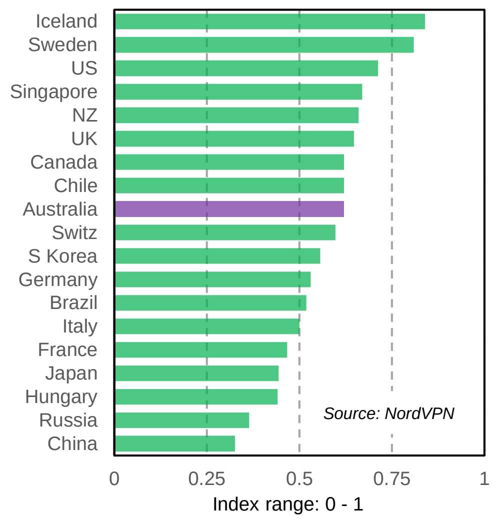
ix. Technology & cyber risks

A coordinated attack on financial institutions or critical infrastructure could destabilize markets by disrupting transactions or eroding trust in the system.

The NordVPN Cyber Risk Index shows that developed countries are more vulnerable to cybercrime (Chart 27). The Index is based on a range of socio-economic, cyber, digital and crime statistics. 27

Australia sits as the 16th most vulnerable of the 50 countries surveyed.

CYBER RISK INDEX
(the higher the index, the higher the risk)



Misuse or overdependence on AI in financial trading could lead to flash crashes or systemic mispricing of assets.

x. Black Swan events

A Black Swan event is a rare, unexpected, and potentially devastating event that has a significant impact. They are sudden shocks that could not have been predicted. Although, after the fact, people often claim that the event was obvious.

They were perhaps best summed up by former US Defence Secretary, Donald Rumsfeld. He famously identified "unknown unknowns - the ones we don't know we don't know." 28

As Australians know, black swans are not so rare! But recent financial examples include the GFC, the Brexit referendum and the pandemic.

There is already a clear Black Swan candidate for 2025 – the Los Angeles wildfires. The fires have devastated the regional economy. And will probably disrupt global insurance and credit markets.

It's not all doom and gloom

There are plenty of potential X-factors. But the apocalypse is not inevitable. Stronger systems, better tools and more cooperation should help.

The positives include:

- Better regulation

Post-2008 reforms improved capital and liquidity requirements for banks, making them more resilient to shocks.

- Central Bank firepower

Central banks have reloaded monetary policy cannons and can cut interest rates (Chart 28). Recent history shows they are more proactive and have demonstrated their willingness to intervene with massive stimulus packages. (As discussed earlier, fiscal cannons are largely empty – fiscal policy may not be able to help all that much).

- Digital innovation

Financial technologies, such as blockchain, are creating alternative structures and reducing reliance on traditional banking systems.

- Labor market strength

Low unemployment rates in many economies provide support to the macroeconomy and reduce financial risks like consumer credit default.

- A Chinese recovery

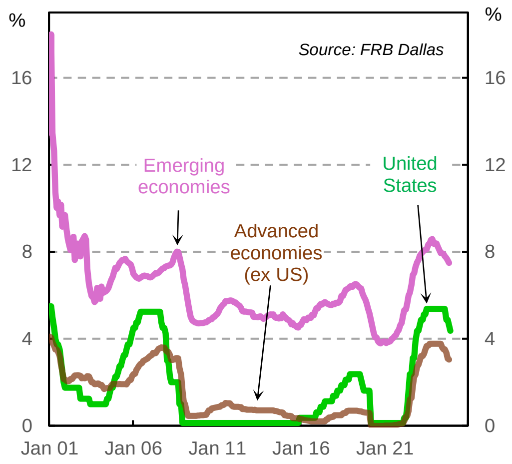
The Chinese economy faces many headwinds. But the considerable policy firepower available could produce some upside momentum and offsetting global downturn risks.

- Coordination

Institutions like the IMF and G-20 are more prepared to coordinate responses, which could prevent localized crises from becoming global.

That said, it's always the unexpected that gets you - watch out for the X-Factor!

POLICY RATES BY REGION



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