



May 2023

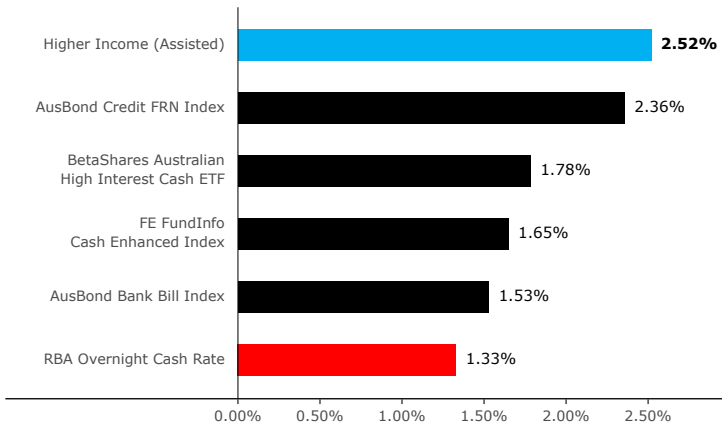
Objective: An independently-rated/recommended strategy targeting low-risk cash and fixed-income returns that exceed the RBA's cash rate by 1.5%-3.0% pa after fees, over rolling 12 month periods.

Strategy: We actively invest in a diversified portfolio of Australian deposits, investment grade floating-rate notes and hybrid securities with a weighted-average "A" credit rating. We do not invest in fixed-rate bonds (unless interest rate risk is hedged), direct loans, use leverage, or take currency risk. We add value via active asset-selection using a range of valuation models with the aim of (1) delivering lower portfolio volatility than traditional bond funds and (2) providing superior risk-adjusted returns, or alpha, without explicitly seeking interest rate risk, credit risk or liquidity risk. The strategy is managed by Coolabah Capital Investments, which is a specialist active credit manager.

Period Ending 2023-05-31	Gross Return (Assist.)	Net Return (Assist.) [†]	RBA Cash Rate	Gross Excess Return [‡]	Net Excess Return (Assist.) ^{†‡}
1 month	0.44%	0.38%	0.34%	0.11%	0.04%
3 months	1.17%	0.95%	0.90%	0.27%	0.04%
6 months	3.14%	2.65%	1.67%	1.47%	0.98%
1 year	3.72%	2.87%	2.62%	1.10%	0.25%
2 years pa	1.61%	0.85%	1.33%	0.28%	-0.48%
3 years pa	2.56%	1.64%	0.91%	1.65%	0.73%
4 years pa	2.58%	1.67%	0.87%	1.72%	0.80%
5 years pa	2.88%	1.96%	0.99%	1.89%	0.97%
Inception pa Oct. 2014	3.48%	2.52%	1.33%	2.16%	1.19%

Smarter Money Higher Income Fund Returns (Net) vs Comparisons

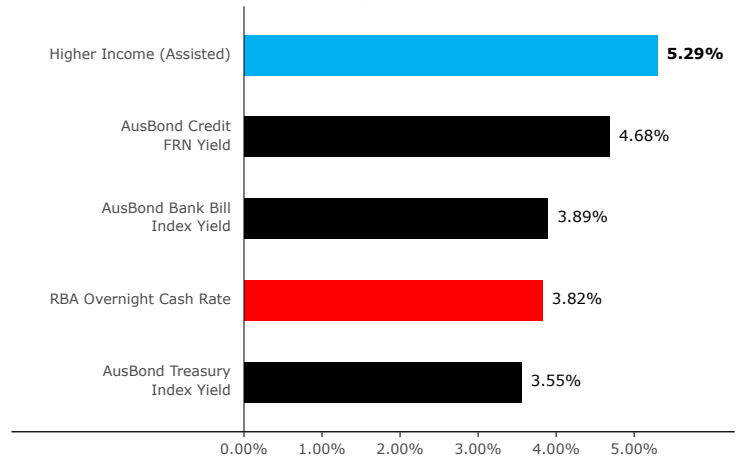
Annualised Total Returns Since Inception in October 2014 to 02 June 2023



Data Source: RBA, Bloomberg, Mainstream, Coolabah Capital Investments

Annualised Yield to Call/Maturity

31 May 2023



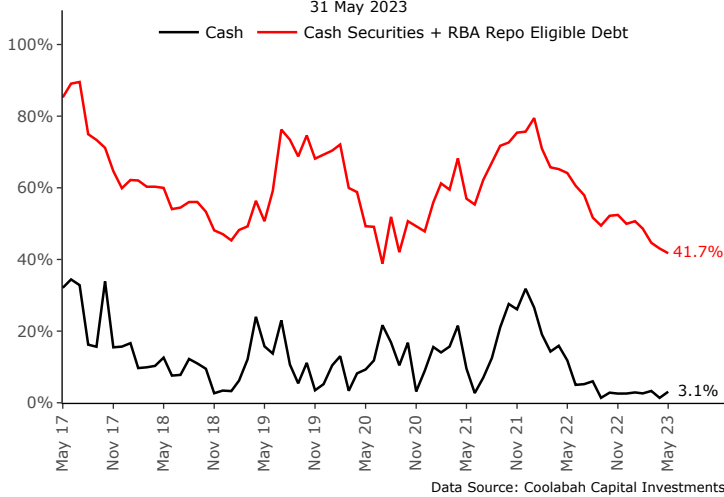
Data Source: RBA, Bloomberg, Coolabah Capital Investments

[†] Net returns are calculated from the historic gross returns using the current fee structure as displayed in the Product Disclosure Statement. [‡] The Excess Return columns represent the gross and net return above the RBA cash rate.

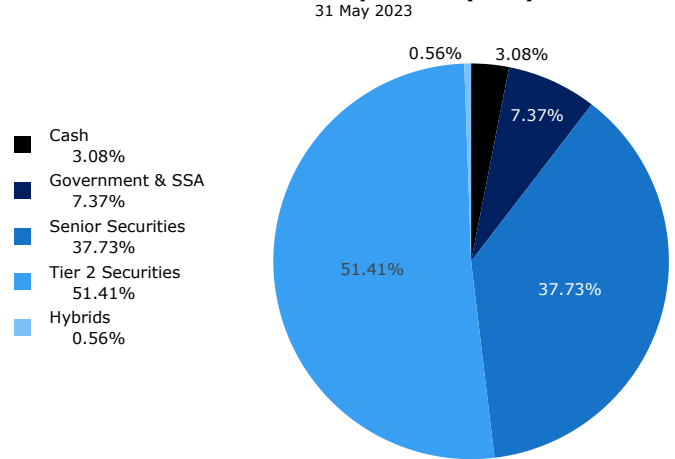
Disclaimer: Past performance does not assure future returns. Returns are shown net of all Management and Performance fees unless otherwise stated. All investments carry risks, including that the value of investments may vary, future returns may differ from past returns, and that your capital is not guaranteed. To understand Fund's risks better, please refer to the Product Disclosure Statement available at Coolabah Capital Investments' website.

Net Monthly Returns > RBA Overnight Cash Rate	77%	Modified Interest Rate Duration	0.13 years
Portfolio Weight to Cash Securities	3.1%	Gearing Permitted?	No
Portfolio Weight to Bonds	97.1%	1 Year Av. Portfolio Weight to Cash	3.2%
Av. Portfolio Credit Rating	A	Portfolio Weight to AT1 Hybrids	0.6%
Portfolio MSCI ESG Rating	AA	Cash Securities + RBA Repo-Eligible Debt	41.7%
No. Cash Securities	11	Net Annual Volatility (since incep.)	0.86%
No. Notes and Bonds	100	Net Sharpe Ratio (since incep.)	1.39x
Av. Interest Rate (Gross Running Yield)	5.12%	Awards: FE Alpha Manager 2019: Christopher Joye; Ratings: Lonsec available to advisers; Highly Recommended (Atchison); 'Superior Relatively Simple' (Foresight Analytics)	

Portfolio Weights: Cash + RBA Repo Eligible Debt

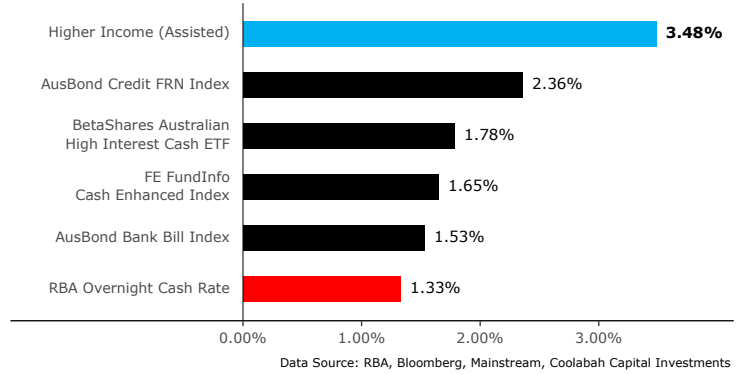


Smarter Money Higher Income Fund Portfolio Composition (NAV)



Smarter Money Higher Income Fund Returns (Gross) vs Comparisons

Annualized Total Returns Since Inception in October 2014 to 02 June 2023



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The since inception gross (net) return of 3.48% pa gross (2.52% pa net) is the total annual return earned by the fund since Oct. 2014, including interest income and movements in the price of the bond portfolio after all fund fees (assuming net returns are calculated from the historic gross returns using the current fee structure as displayed in the Product Disclosure Statement). The net return quoted applies to the Smarter Money Higher Income Fund - Assisted Investor Class, with quarterly distributions reinvested. Each investor's return will vary depending upon their own investment date and any top-ups and withdrawals they make. The annualised volatility estimate of 0.86% pa is based on the standard deviation of net daily returns since inception, which are then annualised, attributable to the Smarter Money Higher Income Fund - Assisted Investor Class.

Portfolio Managers Christopher Joye, Ashley Kabel, Roger Douglas, Dr Nick Campregher (Coolabah Capital Investments)

APIR Code	SLT0052AU	Fund Inception	30-Sep-14
mFund Code	SMF02	Distributions	Quarterly
Morningstar Ticker	40536	Unit Pricing	Daily (earnings accrue daily)
Asset-Class	Short-Term Fixed-Interest	Min. Investment	\$1,000
Target Return	Net 1.5%-3.0% pa over RBA cash rate	Withdrawals	Daily Requests (funds normally in 3 days)
Investment Manager	Coolabah Capital Investments (Retail)	Buy/Sell Spread	0.00%/0.025%
Responsible Entity	Equity Trustees	Mgt. & Admin Fee	0.69% pa
Custodian	APEX Fund Services	Perf. Fee	22.5% of returns over RBA cash + 2.19% pa

Portfolio commentary: The zero-duration daily liquidity Smarter Money Higher Income Fund (SMHI) ended May with an annualised yield to call/maturity of 5.29% pa, a weighted-average credit rating of A, and a portfolio weighted average MSCI ESG rating of AA. In May, SMHI returned 0.44% gross (0.38% net), outperforming the AusBond Bank Bill Index (0.29%), the FE Cash Enhanced Index (0.33%), the RBA Overnight Cash Rate (0.34%), and the BetaShares High Interest Cash (AAA) ETF (0.35%). Over the previous 6 months, SMHI returned 3.14% gross (2.65% net), outperforming the AusBond Bank Bill Index (1.65%), the RBA Overnight Cash Rate (1.67%), the BetaShares High Interest Cash (AAA) ETF (1.75%), and the FE Cash Enhanced Index (2.01%).

Since the inception of SMHI 8.6 years ago in October 2014, it has returned 3.48% pa gross (2.52% pa net), outperforming the RBA Overnight Cash Rate (1.33% pa), the AusBond Bank Bill Index (1.53% pa), the FE Cash Enhanced Index (1.65% pa), and the BetaShares High Interest Cash (AAA) ETF (1.78% pa). Since inception, SMHI's Sharpe Ratio, which measures risk-adjusted returns, has been 2.45x gross (1.39x net). While SMHI's return volatility since inception has been low at around 0.86% pa (measured using daily returns), as a daily liquidity product with assets that are marked-to-market using executable prices, volatility does exist. This contrasts with illiquid credit (eg, loans and high yield bonds) wherein assets that have very high risk can appear to have remarkably low volatility, which is, in fact, just a mirage explained by the inability to properly value these assets using executable prices.

Strategy commentary: In the month of May, floating-rate bond strategies outperformed both equities and fixed-rate bonds as short- and long-term interest rates climbed while risk sold-off care of concerns around the US debt ceiling crisis combined with a recognition that central banks are unlikely to aggressively ease interest rates in 2023 - as had been implied by financial market pricing for some time - absent an existential crisis.

The Aussie equity market inclusive of dividends lost 2.63% in May while the fixed-rate AusBond Composite Bond Index declined 1.20% due to higher government bond yields. In contrast, the floating-rate AusBond FRN Index appreciated 0.34% in the month in line with returns delivered by the RBA's 3.85% cash rate.

Australia's 10-year government bond yield rose from 3.34% to 3.61% in May as the RBA lifted its overnight cash rate from 3.60% to 3.85% in a move that was a shock for most economists and traders. Following an upside surprise to the April month core inflation data, markets are now pricing in a peak RBA cash rate of around 4.15% (ie, slightly more than one standard 25 basis point (bps) hike).

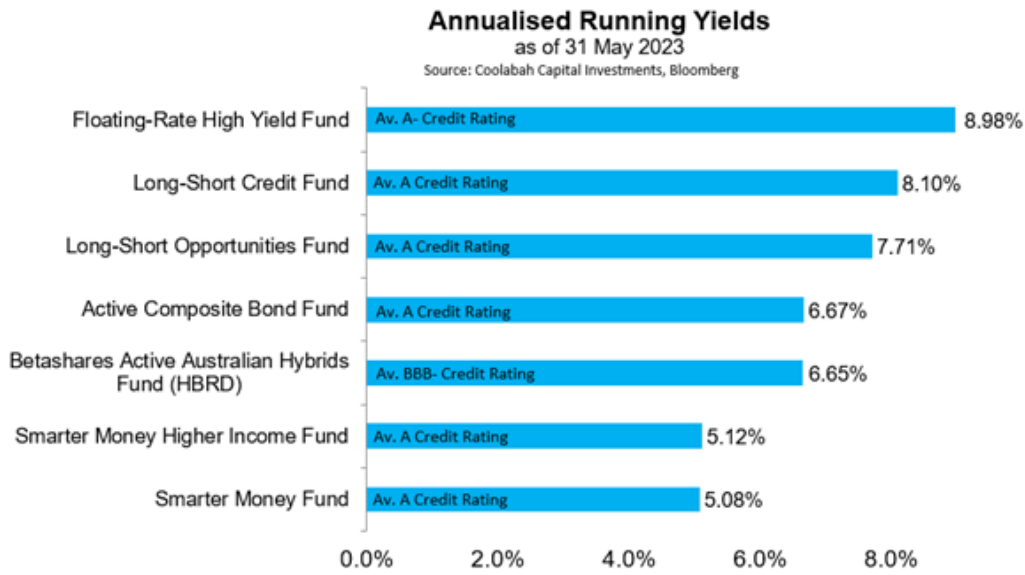
While core inflation in Australia remains elevated compared to peers overseas (annual trimmed mean inflation, measured monthly, printed at 6.7% in April), the RBA's cash rate is conspicuously well-below that of similar countries, including New Zealand (5.5%), the US (5.00% to 5.25%), Canada (4.5%) and the UK (4.5%). Coolabah expected the RBA to consider hiking rates again at its June board meeting.

In the US, the 10-year government bond yield followed a similar path, increasing from 3.42% to 3.64% in May. Markets are only pricing in the best part of one more hike from the US Federal Reserve, which optimistically assumes that current monetary policy settings can quell a core inflation rate that remains multiples of the Fed's 2% target. Indeed, current interest rate derivatives pricing has the Fed reducing its policy rate from a peak of 5.29% in August to 4.81% in January 2024, which seems heroic.

Outperformance

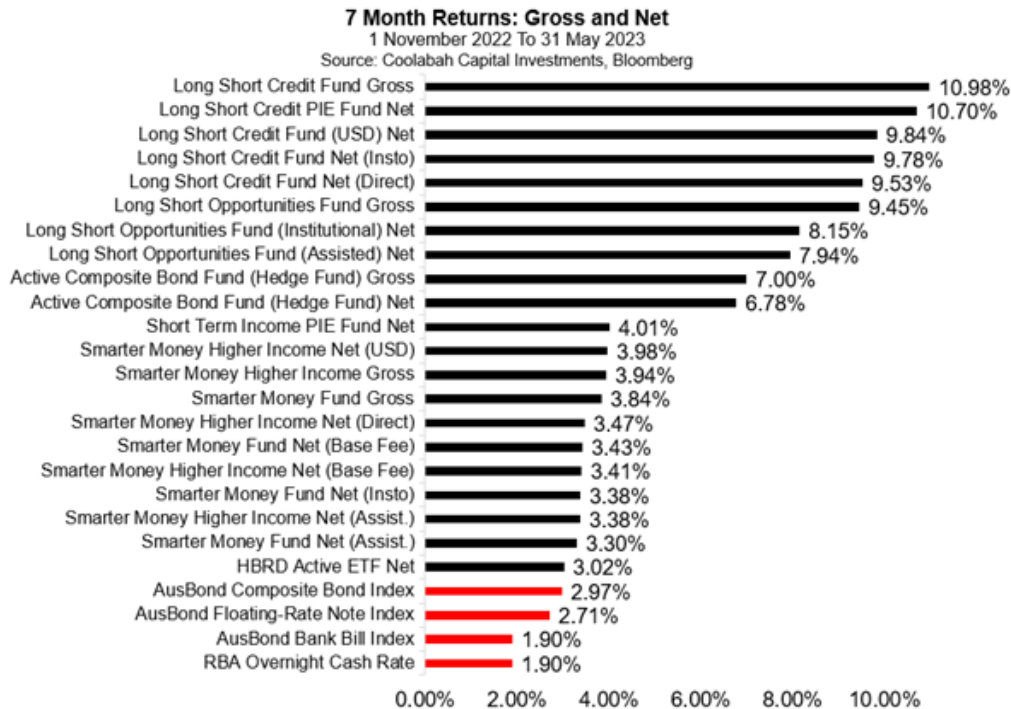
Coolabah's suite of strategies continued to outperform both their benchmarks and the major asset-class indices in May and finished the month with robust yields. The highest-yielding solution remains Coolabah's Floating-Rate High Yield Fund, which ended May with a 9.0% pa cash running yield before fees. This was followed by the Long-Short Credit Fund, which currently has an 8.1% pa cash yield. Coolabah's Active Composite Bond Strategy, which is our market-leading fixed-rate or "long duration" solution, is yielding 6.7% pa gross. And the RBA cash + 1% and RBA cash + 1.5% short-duration strategies, the Smarter Money Fund and Smarter Money Higher Income, which contest the cash plus sector, concluded May with running yields of 5.1% pa.

Strategy commentary cont'd:



In terms of performance, the two floating-rate Smarter Money and Smarter Money Higher Income Funds provided a total return of 0.43% and 0.44% gross, respectively, in May (0.37% and 0.40% net of retail fees), outperforming the AusBond FRN Index once again. The recently launched Floating-Rate High Yield Fund returned 0.59% gross (0.50% net) in the month. Since its inception in December 2022, the Floating-Rate High Yield Fund has returned 5.2% net of fees over this circa 5-month period (not annualised).

In the long duration, fixed-rate bond space, Coolabah’s Active Composite Bond Strategy continued to outperform the Composite Bond Index by 0.16% net in May, and has beaten the index by 1.07% over the last 12 months (after all retail fees).



This outperformance has been partly driven by attractive new issue concessions in the primary bond market in Aussie dollar, US dollar and Euro credit, which Coolabah has systematically capitalised on. In 2023 calendar year to date, we have invested more than \$2.5 billion in cheap new primary bond issues, taking profits on only very modest sums.

Strategy commentary cont'd:

Major Bank 5-year Senior Bond, Tier 2 Bond and Hybrid Running Yields

Source: Coolabah Capital Investments



Spreads in Aussie dollar credit markets tended to drift wider in May. In the 5-year major bank senior bond market, spreads rose from 86bps to around 91bps above the quarterly bank bill swap rate (BBSW) after hitting an intra-month high around 98bps. The major banks’ Tier 2 bond spreads moved similarly, climbing from 214bps to 218bps after hitting an intra-month high around 236bps. Tier 2 bond running yields are the best they have been in over a decade, as the chart below shows.

In the State government bond market, 10-year NSW government bond spreads to the Commonwealth government bond curve nudged up from 72bps to 75bps over the month. Victorian bonds fared worse with 10-year spreads to Commonwealth bonds rising from 76bps to 81bps over as a result of a poorly received Victorian government budget, which continues to run an excessively large structural deficit.

The ASX hybrid market struggled in May due to the \$1.55 billion issue of the new CBA PERLS XVI hybrid (ASX: CBAPM), which did not refinance an existing security and therefore lacked the tail-wind of existing roll-over (or refinancing) demand. That meant the \$1.55 billion CBA raised all came from new money which likely rotated out of existing hybrids (CBAPM offered a small 5bps concession).

CBAPM priced on a 300bps spread above the BBSW, which did imply an attractive running yield of around 7% pa. Coolabah had long flagged that we expect the major banks to continue issuing hybrids on the ASX despite the absence of maturities this year.

The new CBAPM deal pushed 5-year major bank hybrid spreads from 276bps above BBSW to 323bps, which now makes the ASX hybrid look a lot more attractive on an historic relative-value basis. Coolabah has consistently forecast wider ASX hybrid spreads since they touched 220bps in late 2022.

BetaShares’ active hybrid ETF (ASX: HBRD), which Coolabah runs, generated strong outperformance in May, beating the Solactive Major Bank Hybrids Index by 0.76% net of fees (before franking). HBRD has beaten by the Solactive Major Bank Hybrids index net of fees by 0.60% over the last 12 months and by 0.30% net of fees since its 2017 inception, despite being very materially underinvested in ASX hybrids relative to the index (HBRD has typically only been about 88% invested with its remaining capital in lower-yielding bonds).

Strategy commentary cont'd: HBRD has also delivered materially lower volatility than the major bank hybrids index (4.59% pa vs 4.98% pa). HBRD's current running yield is 6.7% pa, which is the highest it has been since HBRD's inception aside from a few weeks in March 2020 when it punched through 8%.

RBA to Hike Again

On the monetary policy front, the RBA has clearly arrived at the view that its long-held hope that Australia's wage and inflation path would prove more benign than other countries, which it felt rationalised a lower relative cash rate, will not be vindicated by the ensuing data.

Beyond very high core inflation, the RBA has recently highlighted that current private sector wages growth of circa 4% pa is highly inflationary given we have the worst labour productivity growth per hour in 38 years of data (-3.6% over the last 12 month). This means that unit labour costs, which measure wage growth less productivity growth, are running at a very lofty 7% pa. This will feed into strong demand-side inflation, as represented by the cost of services, and will make it very hard for the RBA to normalise underlying inflation back to its 2-3% target unless we get higher productivity and/or lower wage growth.

The Fair Work Commission's decision to boost the minimum wage by 8.65% and award wages by 5.75%, which will ultimately affect more than one in four workers, only heightens pressure on the RBA to lift the cash rate again in June following the upside surprise to the April inflation data.

Based on the RBA's forecast profile for wages, Coolabah estimates that the central bank was technically assuming a more benign circa 4.6% increase in the minimum wage and award wages. Given unchanged productivity, the RBA will now be projecting even higher inflation, with the corollary that its terminal cash rate will also need to be lifted by perhaps another 25 to 50bps.

The RBA is also probably exercised that talk of the end of the hiking cycle earlier this year contributed to triggering a bounce in house prices that risks reigniting a positive wealth effect that will necessitate even tighter monetary policy.

In the five biggest capital cities, home values had declined from their peak in May last year (which coincided with the RBA's first rate-rise) by exactly 10% in February. In Sydney, the peak-to-trough fall was much steeper again at precisely 14%. In inflation-adjusted terms, the correction in capital city dwelling values was roughly 16%.

House Prices to be Whacked Again

In October 2021, Coolabah projected that this monetary policy cycle should trigger a total decline in home values in the order of 15-25% in nominal terms. (We have not adjusted this view since.) Applying the RBA's model of the housing market, which we calibrated with a terminal cash rate of 4.25%, the maximum nominal drawdown was implied at north of 30%.

A simpler way to think about house prices is to examine changes in borrowers' purchasing power over time. According to our analysis, the median household has suffered a 29% reduction in purchasing power since the RBA started lifting rates last year, inclusive of the most recent hike to 4.1%.

This purchasing power framework accounts for changes in both household incomes and mortgage rates over time. In recent freedom of information disclosures, the RBA revealed internal modelling that showed it would need to boost its cash rate to 4.8% to get inflation back to the mid-point of its 2-3% target band by June 2025.

If the cash rate does indeed hit 4.8%, it would mean that purchasing power has been eroded by a total of 33% since the RBA kicked off this cycle in May last year. In dollar terms, the value of a home that the median household could afford to buy will have slumped from \$773,000 in March last year to \$515,000 after the cash rate touches 4.8%.

Interestingly, that \$515,000 price that the median household can practically afford to buy given a 4.8% cash rate is some 21% below the current \$651,000 median dwelling price across Australia.

Strategy commentary cont'd: All roads seem to suggest that the ebullient bounce in house prices in the seasonally strong period between February and May is likely to be superseded by a much more dour environment in which property prices recommence their record slide back to fair value in the second half of the year.

This should be amplified by an increase in unemployment amid what will probably be a global recession. Since January last year, Coolabah has been forecasting a US recession late this year or early next year based on models that use both bond and equity market data.

Coolabah's Recession Modelling

We recently extended this analysis to a new model developed by Harvard academics Larry Summers and Alex Domash, which the RBA has referenced in its recent work quantifying the risk of a recession in Australia.

The Summers and Domash model focuses on the trend in inflation and recent unemployment, and indirectly captures the policy response to high inflation and low unemployment, where the US Federal Reserve normally needs restrictive monetary policy to deal with uncomfortably high inflation and unsustainably low unemployment.

“The results suggest that at the start of this year, the estimated probability that the US will enter a recession is about 66% over the coming year and climbs to about 90% within the next two years,” Kieran Davies, Coolabah’s chief macro strategist, says.

“These are high probabilities by the standards of the model and well above the observed historical risk that the US will enter a recession, which is not surprising given that inflation recently reached its highest level since the 1980s and unemployment fell to its lowest level in about 50 years.”

These findings also correlate with Coolabah’s yield curve-based recession forecasting model, which points to a historically elevated probability of a recession late this year or early next year.

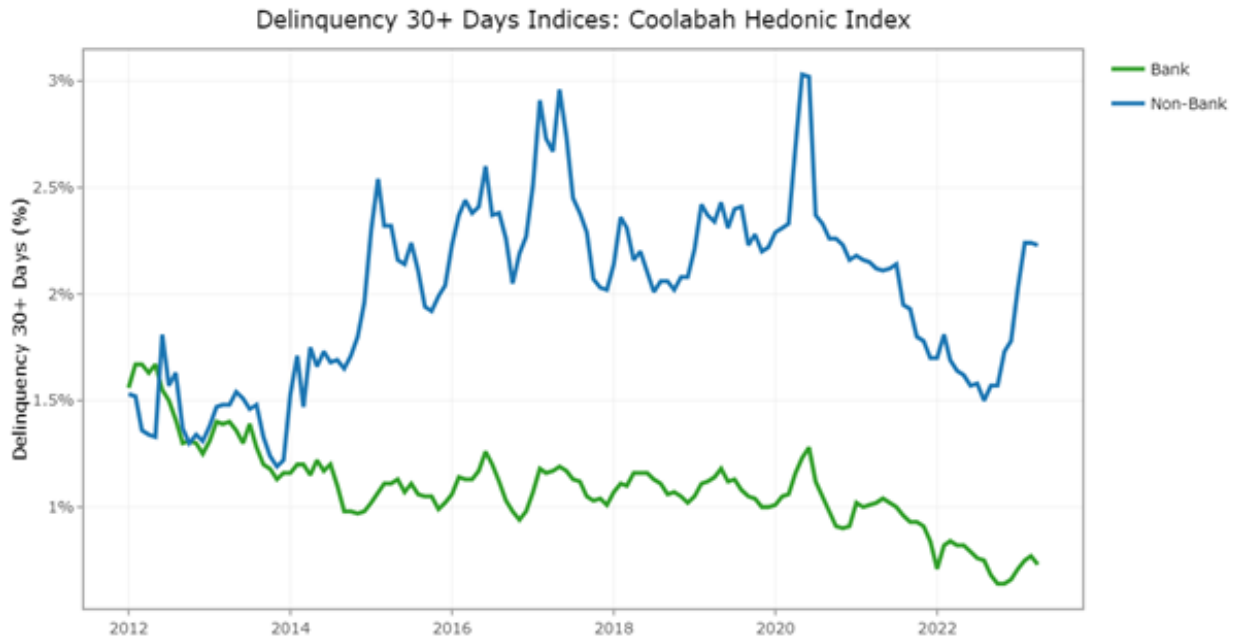
The RBA has also done some fascinating work on this subject. In one recent piece of research, the RBA took its own forecasts as given and found there was only a 50% chance of the central bank achieving its “narrow path”, which it defines as inflation returning to target without requiring a recession.

An alternative model that adopts a “more flexible approach for exploring recession probabilities” that is “less dependent on [the RBA’s] central forecasts and can make greater use of historical information” paints a more pessimistic picture. This estimates “the chance of a recession in the next two years at 65 to 80%,” the RBA says.

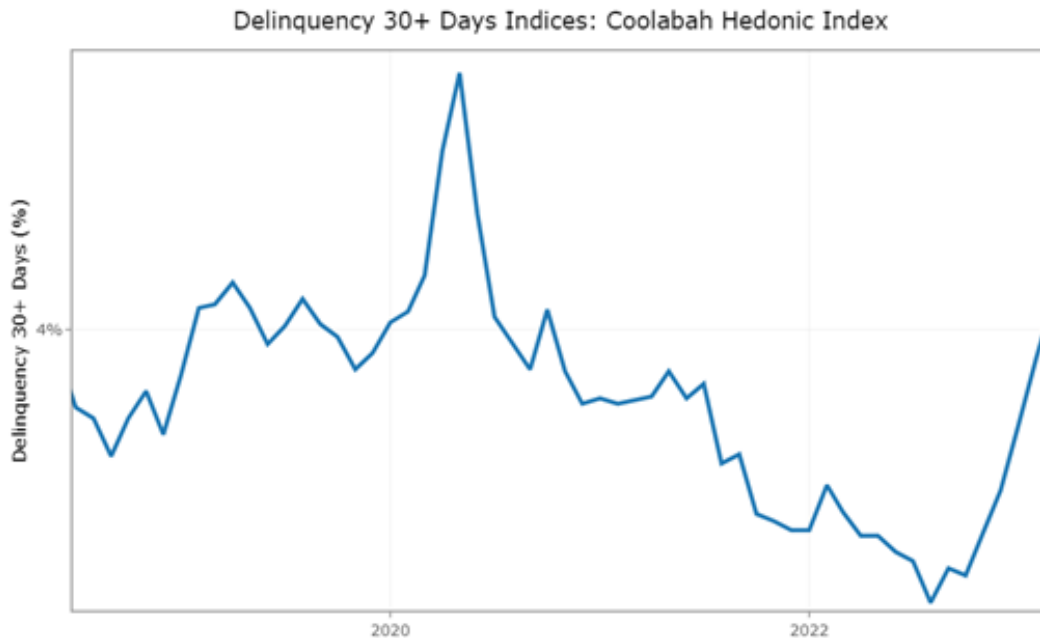
This is one reason why we are very focused on the current default cycle, which is likely to be the worst Australia has experienced since the 1991 recession.

While we have yet to observe a material increase in delinquencies on bank balance sheets, there has been a very sharp jump in the 30 days-plus arrears reported by unregulated non-bank home loan lenders in both their prime and sub-prime mortgage pools.

Strategy commentary cont'd:



In the sub-prime mortgage space, 30 days or more arrears have doubled from about 2% to circa 4% of all borrowers, and this is likely to continue to climb. Recall that the RBA found that at a 3.6% cash rate, an incredible 15% of all Aussie borrowers would have negative cash flows. The cash rate is 3.85% and could be heading towards 4.8%. The chart below shows the 30 day arrears rate on all compositionally-adjusted sub-prime RMBS loans.



RMBS Arrears Measurement Problems

One problem when looking at home loan portfolios backing RMBS is that there are many biases that can artificially increase or decrease the official arrears numbers. The biggest bias is that all new RMBS deals come to market backed by a portfolio of home loans that is completely default-free. Lenders carefully select these loans to ensure none of the borrowers in the pool are behind on their repayments.

Strategy commentary cont'd: Accordingly, a new, say, \$1 billion RMBS portfolio that is added to the official arrears index, such as S&P's SPIN indices, will mechanically drag down the index's overall arrears rate in a completely fallacious fashion.

This drives a particularly strong bias in bank versus non-bank arrears rates because of differentials in RMBS issuance. In recent years, banks have issued very little RMBS because it has been much cheaper to raise money via deposits and bonds. Non-banks, on the other hand, have been massive and continuous issuers of RMBS given it is their only source of finance.



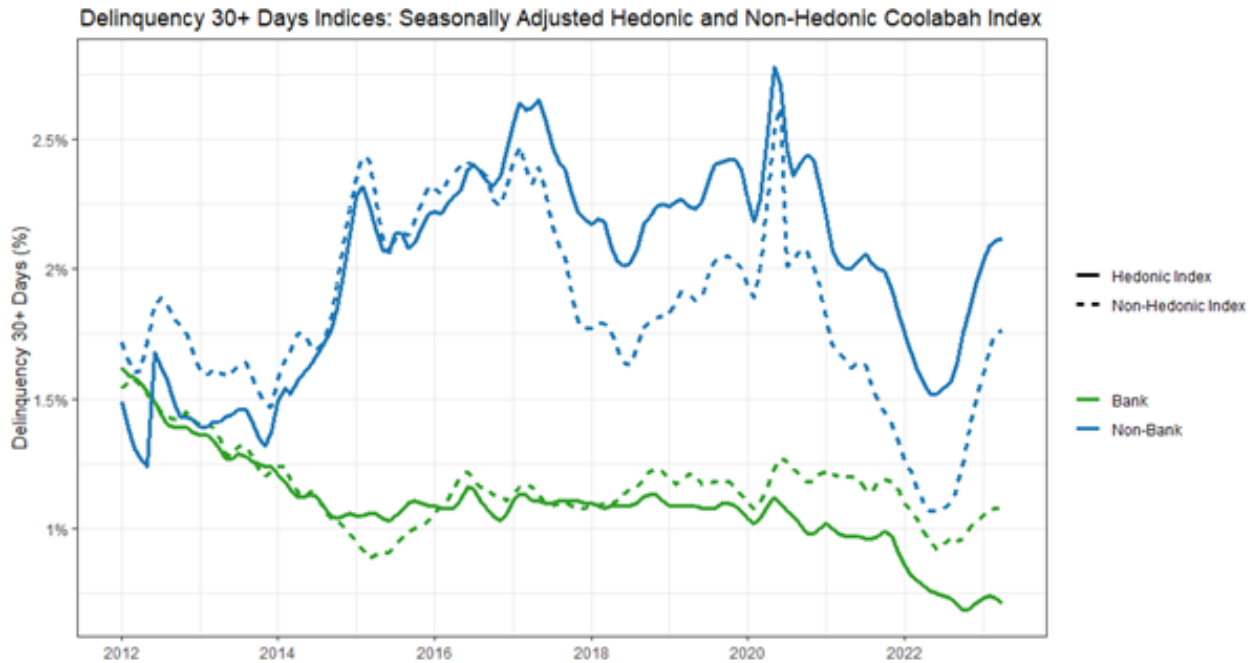
In 2018, Coolabah published detailed academic research to address these measurement problems. We developed a compositionally adjusted RMBS arrears index that controlled for the date on which RMBS is issued, and several other factors that bias an index's reported arrears rate up or down.

These other variables include the average life of the loan (default rates tend to peak after three years), the average loan-to-value ratio (higher LVRs are associated with greater default risks), the geographic distribution of the loans (different regions have higher or lower default probabilities), and the borrower's characteristics (eg, investors versus owner-occupiers).

Our research demonstrated that raw or naive RMBS arrears indices are indeed enormously biased unless you control for these factors using a "hedonic", regression-based approach that is similar to the compositional adjustment methodologies we developed for CoreLogic's house price indices and those used by global statistical agencies for accurately measuring inflation. The RBA has since leveraged off our research in its own RMBS studies.

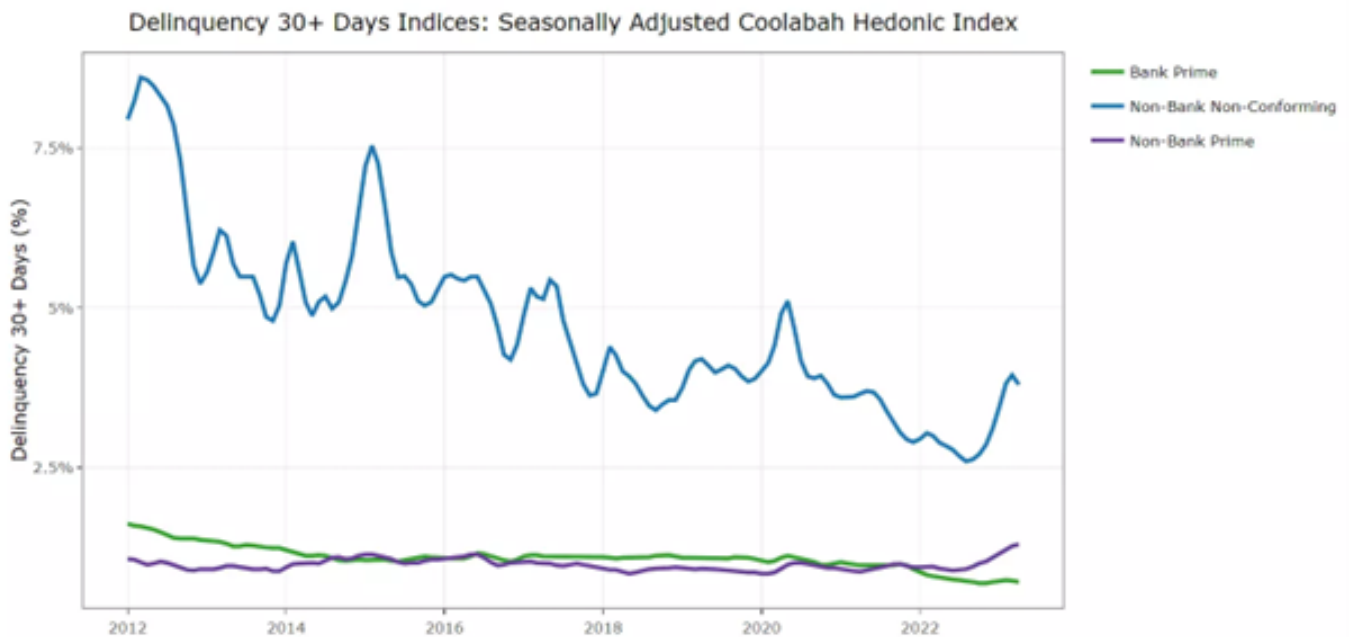
When we look at all non-bank and bank-issued home loans, the non-banks have much higher arrears rates on an unadjusted basis. After we apply our hedonic, regression-based compositional adjustment, the arrears rates suffered by non-banks increases materially, while banks' reported arrears rates decline (ie, the gap widens).

Strategy commentary cont'd:

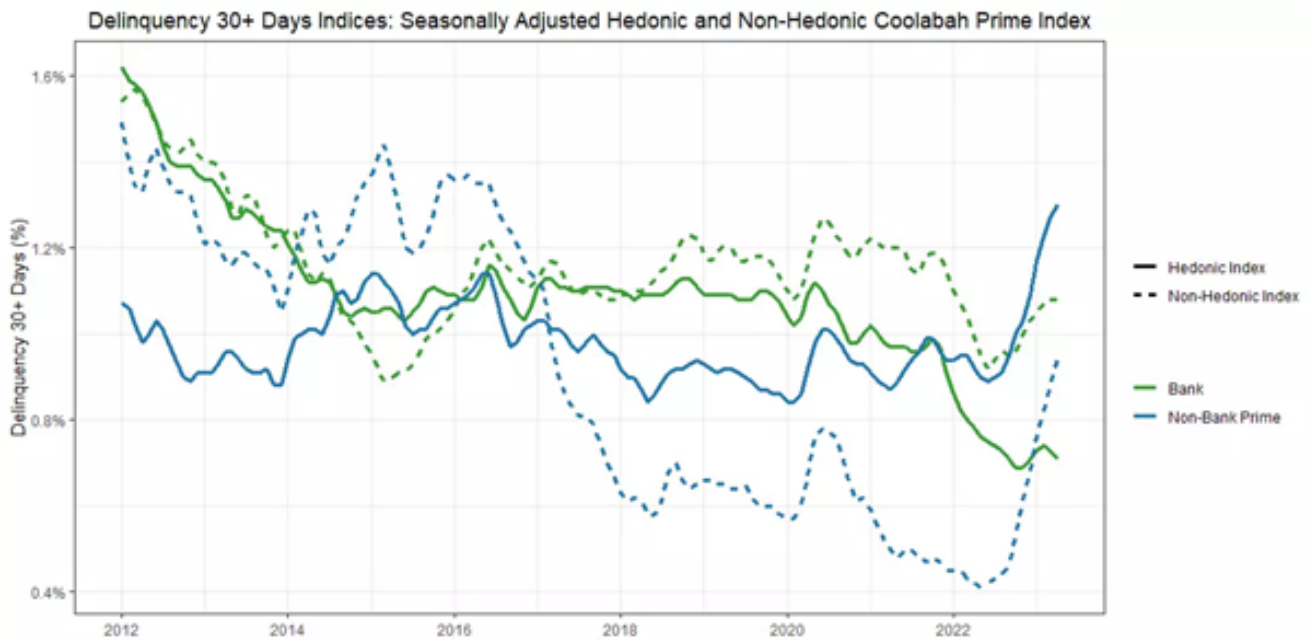


Another approach is to cherry-pick non-bank loans such that you ignore all their risky products and only consider the “prime” (or high-quality) home loans that are more comparable to normal bank mortgages. Once again, if you only examine the raw data, you would arrive at the completely spurious and counter-intuitive conclusion that unregulated non-bank lenders actually have lower home loan default rates than the much more intensively regulated banks.

Yet, when one removes the new issue bias by applying our hedonic compositional adjustment, we find that prime, non-bank home loan default rates are very similar to the default rates reported on the banks’ prime home loans, which makes sense given both are classified as prime (ie, not sub-prime).



Strategy commentary cont'd:



What is interesting is that since mid-2022, the arrears rate on prime, non-bank home loans has jumped to its highest level since our data set began in 2012, whereas the banks' prime arrears rates have yet to increase materially. This suggests that non-banks are, in fact, writing riskier prime loans than the banks given their borrowers have responded much more poorly to the RBA's rate increases.

In the non-banks' other sub-prime (or non-conforming) home loans, we also document a sharp recent spike in arrears since mid-2022, although that remains below prior peaks, which it will likely surpass.

In our own due diligence, we have found that large banks are much more sophisticated and capable when it comes to assessing and managing credit risks than non-banks. Non-banks often use the 2008 crisis as their worst-case scenario, which in Australia involved only a modest increase in unemployment and did not trigger a recession.

Banks, by way of contrast, stress test using the 1991 recession, which was orders of magnitude worse. Banks also have much larger and more sophisticated risk teams, access to many diverse sources of funding, including deposits and bonds, and the benefit of central bank liquidity and government guarantees. The price of all this support is hellishly tough supervision by a notoriously brutal banking cop, the Australian Prudential Regulation Authority.

RBA Flags Active Taper

The RBA has reiterated that it will consider later this year whether there is a case for actively selling Commonwealth government bonds off its balance sheet once banks have repaid the first tranche of the circa \$190 billion they borrowed off Martin Place during the pandemic.

This repayment process has been, and will likely continue to be, seamless. The nuance here, which is complex, is that when the RBA initially lent this money to banks in 2020, it created digital cash that was held on deposit with it. And as banks repay these loans, this cash disappears.

Crucially, the cash has been a large component of the liquid assets that Aussie banks hold as part of their regulatory buffers. As the cash vanishes, banks have to replace it with the two other forms of liquid assets the regulator accepts: Commonwealth and state government bonds.

Strategy commentary cont'd: Back in 2021, we published [important new research](#) that highlighted for the first time that the process of banks repaying the \$190 billion they borrowed off the RBA would create huge demand for “high quality liquid assets” that were permissible by the regulator.

At the time, it was well understood that the Australian Prudential Regulation Authority’s wise decision to shutter the \$140 billion committed liquidity facility (CLF), which we had advocated, would result in a need for banks to replace it with Commonwealth and state government bonds.

The CLF was established by the RBA when there were not enough government bonds outstanding for banks to hold due to Australia’s prolific run of budget surpluses. The fiscal profligacy since the global financial crisis has resulted in the total government bond market swelling to more than \$1.2 trillion in size. And it is likely to continue to grow rapidly.

Under the CLF, banks were able to hold comparatively high-yielding assets, such as internal loans, bank bonds and residential mortgage-backed securities, which paid superior interest rates to boring government bonds. They can no longer do so.

What almost all bank treasuries had not figured out in 2021 was that their demand for liquidity was going to be vastly greater than the mere closure of the CLF implied.

Few seemed to appreciate that both the repayment of the money borrowed off the RBA and maturities of the \$360 billion of bonds that the RBA had itself bought during the pandemic would trigger a need for somewhere between \$300 billion and \$600 billion of total additional liquid assets in the form of purchases of Commonwealth and state government bonds. Sell-side analysts were equally oblivious in 2021.

They appeared to get the message by mid-2022. And bank treasuries have predictably stepped up to the plate and purchased record volumes of state government bonds since. (They prefer state bonds because they pay a large spread over Commonwealth bonds.)

An “active taper” off the RBA’s balance sheet might make a lot of sense if it is convinced that the repayment of the \$190 billion it lent banks does not create any financial system or market imbalances.

It would also be helpful if core inflation remains sticky (which it likely will) and demands the RBA lifts its cash rate somewhat closer to the level most peers have hit, exceeded or are heading towards. Active bond sales would be tantamount to another 30 basis points of interest rate increases and could substitute for the RBA lifting its cash rate, all else being equal.

The RBA has said one consideration is whether an active taper affects the power of any future quantitative easing, or bond purchase programs. It might worry if investors discounted future QE based on the fact that it could be subsequently unwound.

Yet this unwinding would be motivated by a desire to correct a policy that - with the benefit of perfect hindsight - one can say precipitated too much stimulus, which has manifest in the form of the elevated demand-side (or services) inflation we are witnessing.

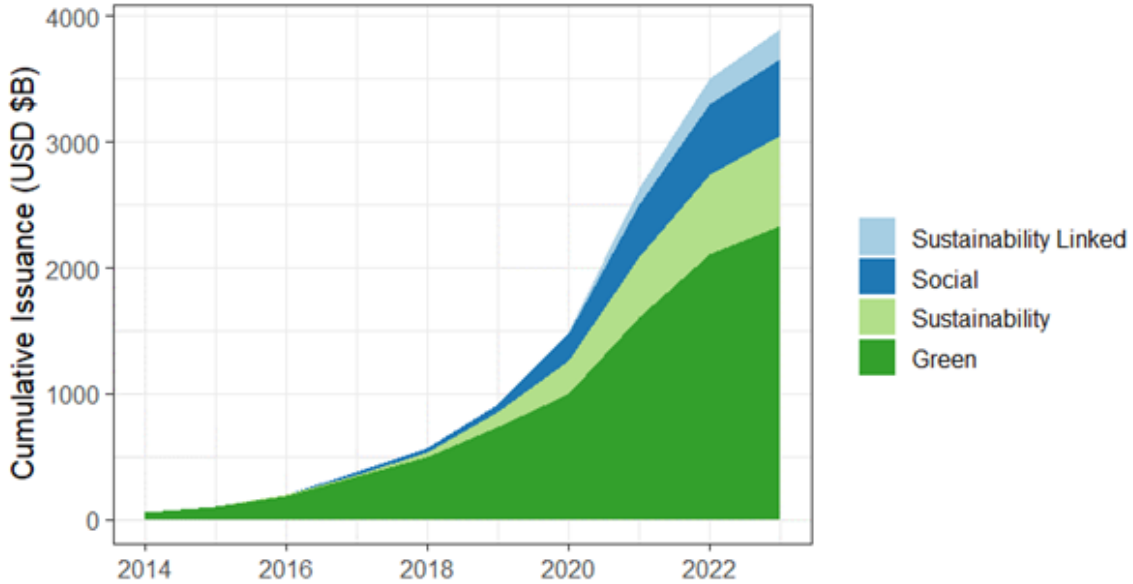
Modelling ESG Bond Premia

On the subject of bond markets, one of the more interesting questions going around is whether bonds issued for environment, social and/or governance (ESG) purposes attract a lower of cost of capital than normal debt instruments without an ESG label. That is, whether there is a “greenium”, or bond price premium, as a result of these securities commanding lower interest rates than alternatives.

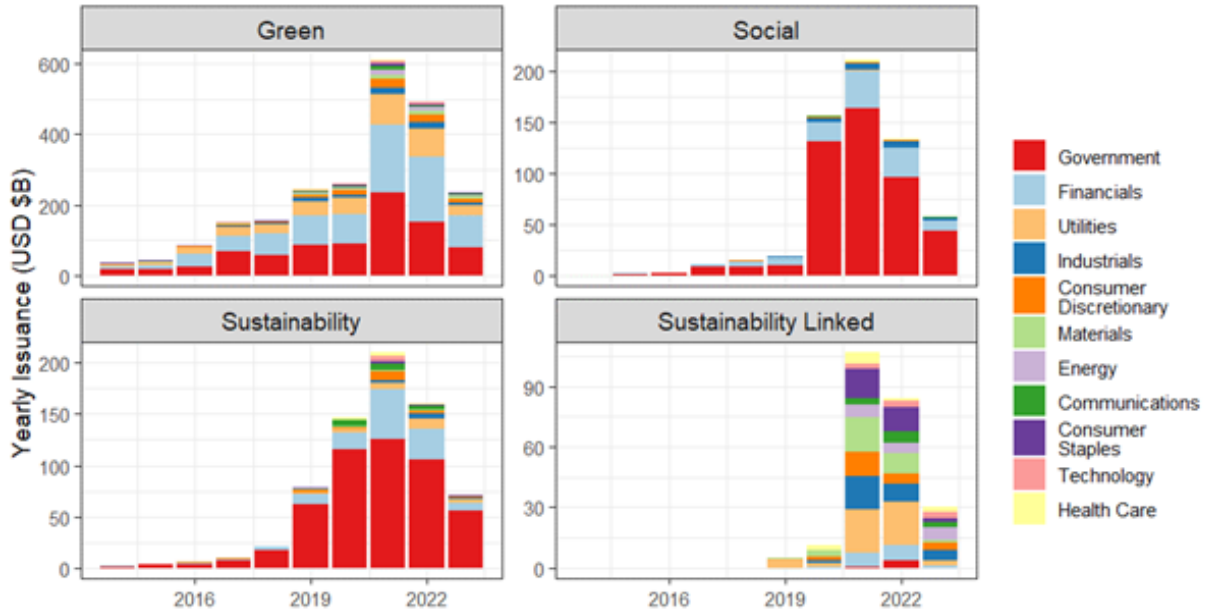
Coolabah’s 38-person team uses up to 30 or 40 different quantitative bond pricing models to revalue all debt securities globally that we are comfortable trading. And these models explicitly seek to identify the presence of a price premium for different types of ESG securities, which we trade in Aussie dollars, US dollars and euros.

Strategy commentary cont'd: We estimate that in 2022 there was a total of \$US50.6 trillion (\$81 trillion) of government and bank/corporate bond issuance, of which about \$US827 billion (1.7%) were ESG securities. Since January 1, 2022, we have traded around \$99 billion of sovereign, bank and corporate bonds, and associated credit derivatives. ESG securities have accounted for about 7% of our physical credit trading.

ESG Bond Issuance

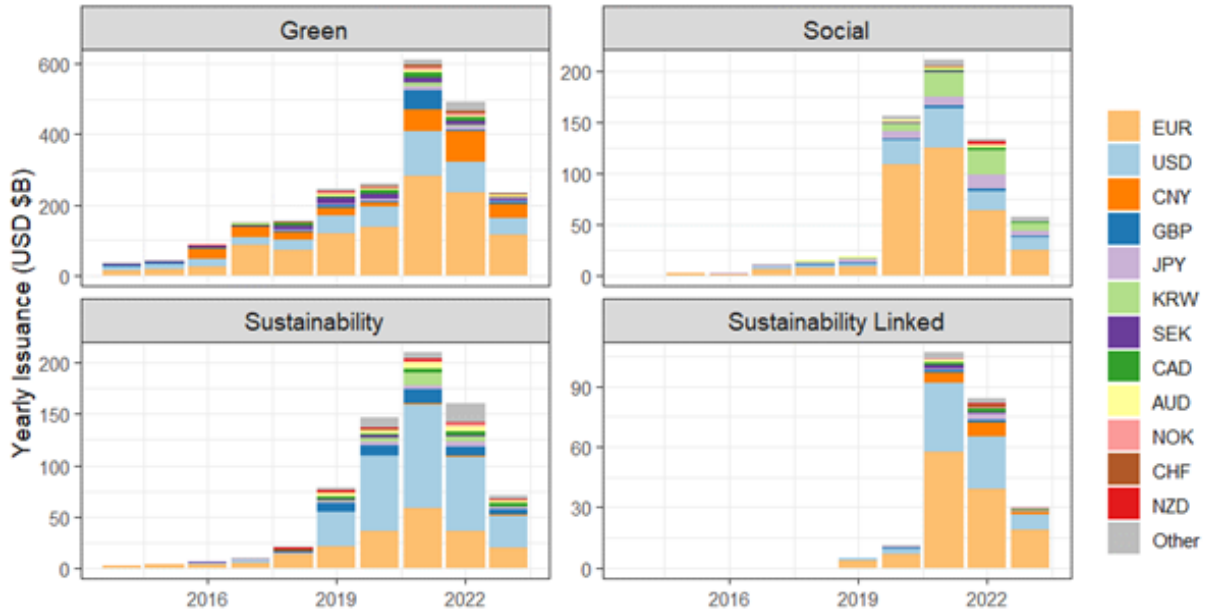


ESG Bond Issuance By Industry

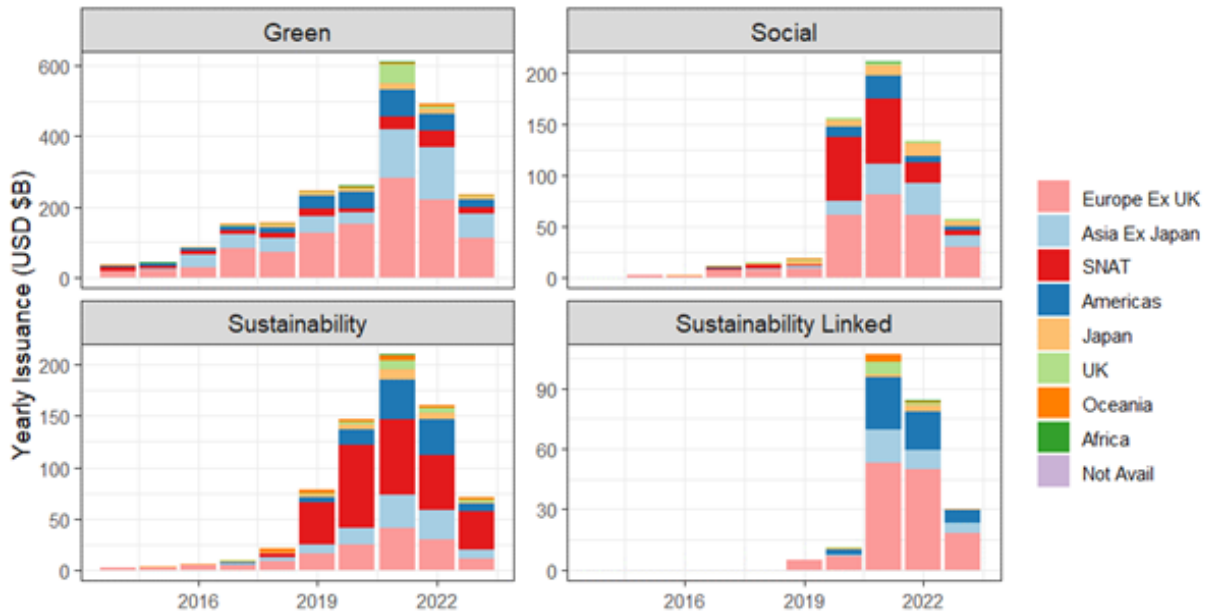


Strategy commentary cont'd:

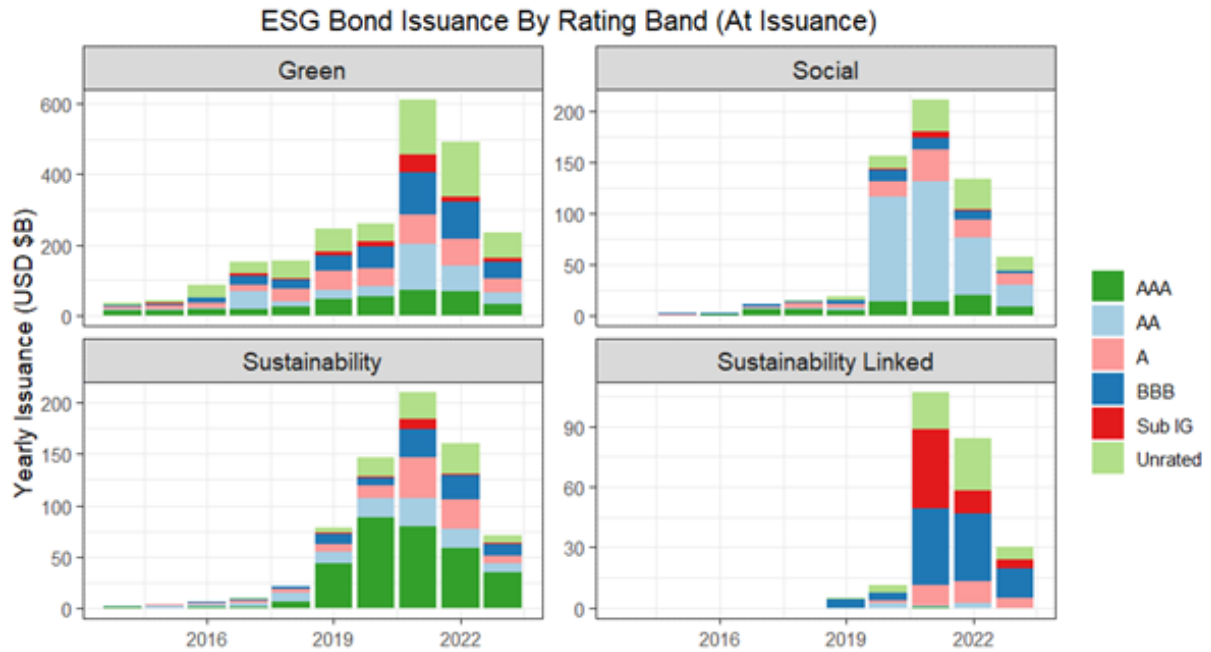
ESG Bond Issuance By Currency



ESG Bond Issuance By Region Of Risk



Strategy commentary cont'd:



What we know from hard-won experience is that there is definitely an ESG premium in some market sectors at certain times. The challenge is that this ESG premium is constantly changing. It can appear in striking form and then fade away for a variety of complicated reasons. And this tends to be a function of market volatility.

Allow me to provide some examples.

In the state government bond market, ESG bonds trade on a slightly tighter spread, or interest rate margin, than non-ESG securities. In 2023, this ESG premium has ranged between one and three basis points (0.01% to 0.03%). Yet there have been periods in the past when it has been significantly stronger.

If we instead look at, say, the major banks’ bonds issued in euros, we find an ESG premium worth about five basis points in interest rate margin terms (ie, they trade on lower spreads). Once again, this premium has fluctuated strikingly over time and can disappear completely.

Interestingly, the ESG premiums attracted by both state government bonds in Aussie dollars and major bank securities in euros were much bigger in mid-2022 when markets were especially turbulent. This could reflect investors choosing to hold on to these securities during the chaos (ie, expressing a preference for selling normal bonds without the benefit of an ESG demarcation).

Staying in euros, the senior-ranking ESG bonds issued by British and French banks have consistently commanded a five to six basis point premium in spread terms. Current ESG premiums are a little higher than this longer-term estimate.

Finally, the senior bonds issued by US banks in US dollars have experienced a rather different trajectory. Between mid-2020 and mid-2022, there was a fairly stable five to 10 basis point ESG premium in spread terms. Yet this has more recently disappeared, perhaps as a result of the turmoil in the US regional bank market.

Strategy commentary cont'd:

Big USD Bank Senior Non-Preferred in USD - ESG Premium



Back in 2019 Coolabah published detailed academic research on whether companies with positive ESG rankings drove superior risk-adjusted excess returns (alpha) and/or reduced systematic market risk (beta) in global equity and bond markets. We quantified statistically significant alpha and beta benefits in Australian and US equities.

There were also ostensible beta gains in the case of bonds. But what we discovered is a strong relationship between ESG rankings and credit ratings, which makes intuitive sense when you think about it.

If a company has significant ESG risks, that should also bleed into their credit ratings. Once our models formally controlled for credit ratings, the beta-reduction benefits were no longer statistically significant.

Of course, since there are time-varying ESG premiums in bond markets, carefully quantifying them dynamically across all global securities using an array of different valuation methods can provide considerable investment benefits.

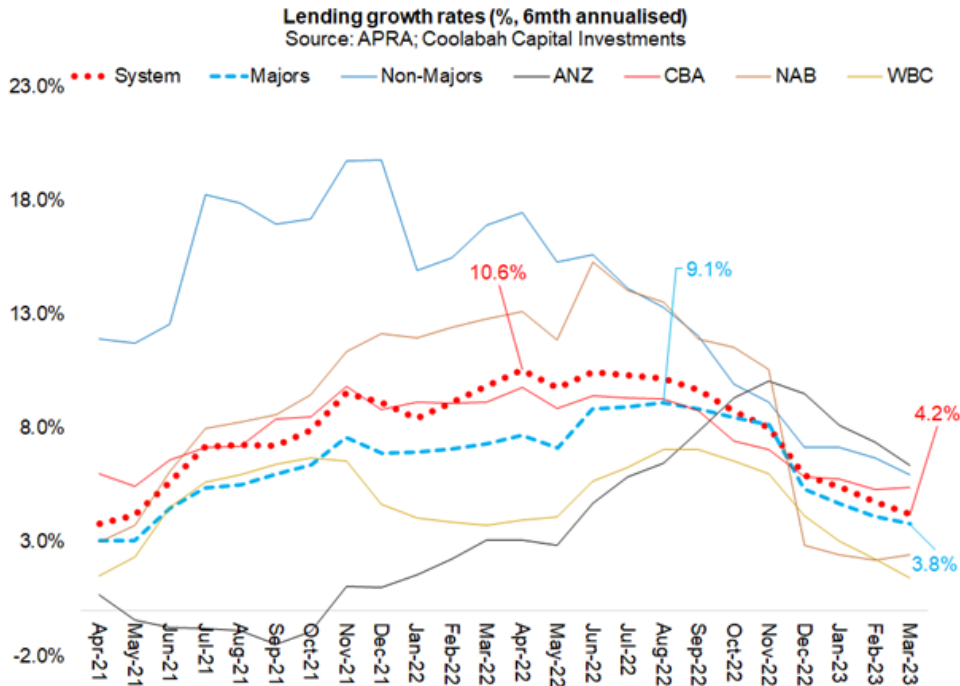
This is particularly true if these premiums are not captured by bond issuers in the form of lower interest rates when they sell these securities to their investors.

Bank Bond Issuance Could Slow Sharply

Banks issue bonds to fund their balance-sheet growth alongside funding they source from deposits. Bank treasury teams are notoriously poor at forecasting balance-sheet growth and tend to suffer periods of under- or over-issuing. We are both observing and projecting a dramatic slow-down in Aussie bank balance-sheet growth, which could materially reduce both their senior and Tier 2 bond issuance needs in the next few years.

There has been a striking slow-down in Aussie bank balance-sheet growth on a rolling, six month annualised basis from circa 10.6% per annum in April 2022, just before the RBA began to hike rates, to 4.2% per annum as at March 2023. The majors have been growing even more slowly at a 3.8% annualised pace over the half-year to March with Westpac only realising a sluggish 1.4% annualised lending growth over this same period.

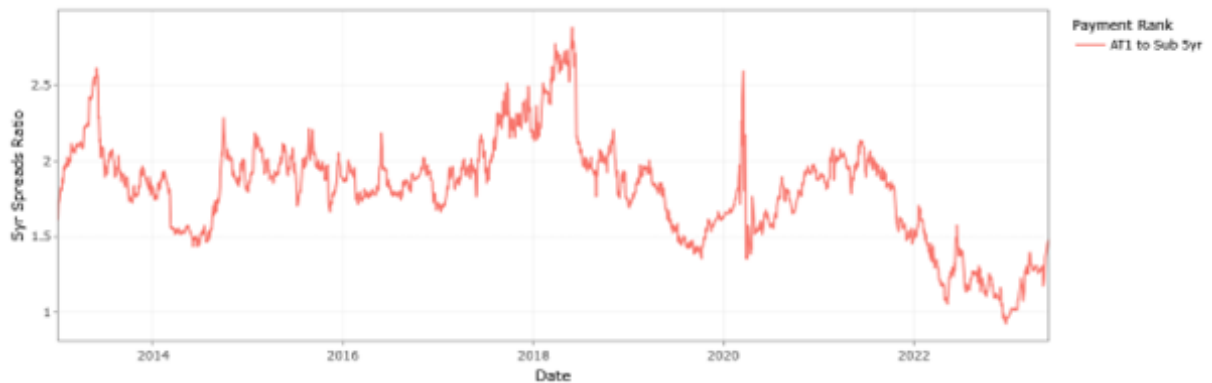
Strategy commentary cont'd:



Balance-sheet growth is likely to decelerate further to 2% per annum or less as the RBA's record 375bps of hikes begin to bite. There is also a real risk that the central bank continues to nudge-up rates given recent freedom of information disclosures that it considers a 3.8% cash rate (we are at 3.85% currently) to be the "neutral" cash rate that is unlikely to quell inflation sufficiently for it to meet its 2-3% CPI target by 2024 or 2025.

Issuance Forecasts

We model the banks wholesale funding needs, which includes all forms of debt issuance, and their Tier 2 bond requirements in particular. Our central case is that balance-sheet growth decelerates to 2% per annum or less with the risk that we go through a period of no growth at all. The major banks are targeting holding Tier 2 capital worth about 6.5% of their risk-weighted assets. However, Tier 2 bonds are substitutable with hybrids or Additional Tier 1 (AT1) capital. And AT1 hybrid spreads are at historically low levels compared to Tier 2 bond spreads (ie, they are cheap for banks to issue whereas Tier 2 is expensive). The chart below shows the ratio of the spread of 5-year major bank hybrids compared to 5-year major bank Tier 2 bonds. It is normally around 1.8x. Today it is about 1.3 times.



Strategy commentary cont'd: So one might expect the major banks to issue a little more AT1 hybrid capital in the next year and a little less Tier 2. Banks are targeting raising Tier 2 capital worth about 6.5% of their risk-weighted assets (RWA) by January 2026. At 3% annual balance-sheet growth, that implies about \$17.5bn of issuance each year, which is almost exactly their average issuance volumes over the last 3-4 years.

But if we likely see a combination of 1/ much slower balance-sheet growth of 0-2% per annum and 2/ a marginal substitution towards more AT1 hybrid issuance (noting there are no major bank maturities on the ASX this year that will encourage a pivot from T2 to AT1), then we could see less Tier 2 bond issuance. This could range from as little as \$10.4bn (\$2.8bn net) per annum (0% RWA growth and 6% T2) to \$16.3bn (\$8.7bn net) per annum (2% RWA growth and 6.5% T2).

		Total Major T2 Issuance Required/year (\$bn)			
		Jan-26 T2 Target			
		6.00%	6.25%	6.50%	6.75%
RWA Growth Rate	0.00%	10.4	12.1	13.8	15.5
	0.50%	11.0	12.7	14.4	16.1
	1.00%	11.5	13.3	15.0	16.8
	1.50%	12.1	13.9	15.6	17.4
	2.00%	12.7	14.5	16.3	18.1
	2.50%	13.3	15.1	16.9	18.7
	3.00%	13.9	15.7	17.5	19.4
	3.50%	14.5	16.3	18.2	20.0
	4.00%	15.1	16.9	18.8	20.7

		Net Major Issuance Required/year (\$bn)			
		Jan-26 T2 Target			
		6.00%	6.25%	6.50%	6.75%
RWA Growth Rate	0.00%	2.8	4.5	6.2	7.9
	0.50%	3.4	5.1	6.8	8.5
	1.00%	4.0	5.7	7.4	9.2
	1.50%	4.5	6.3	8.1	9.8
	2.00%	5.1	6.9	8.7	10.5
	2.50%	5.7	7.5	9.3	11.1
	3.00%	6.3	8.1	10.0	11.8
	3.50%	6.9	8.7	10.6	12.5
	4.00%	7.5	9.4	11.2	13.1



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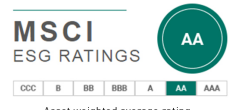
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